


Authorized Signature

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: Rules And Conditions Upon Which Oil And Gas Operators May Access State Forests

Type of Rule: ☒ Legislative ☐ Interpretive ☐ Procedural

Agency: Division of Natural Resources, Parks and Recreation Section

Address: Capitol Complex, Bldg. 3, Room 714
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Phone Number: 558-2764 Email: robertbeanblossom@wvdnr.gov

Fiscal Note Summary

Summarize in a clear and concise manner what impact this measure will have on costs and revenues of state government.

The fiscal impact of the proposed emergency rules will have minimal impact upon the agency. It is estimated that it will cost no more than \$2,000 next fiscal year to cover the cost of training and travel for the state forest superintendents.

Fiscal Note Detail

Show over-all effect in Item 1 and 2 and, in Item 3, give an explanation of Breakdown by fiscal year, including long-range effect.

FISCAL YEAR			
Effect of Proposal	Current Increase/Decrease (use "-")	Next Increase/Decrease (use "-")	Fiscal Year (Upon Full Implementation)
1. Estimated Total Cost	0.00	2,000.00	0.00
Personal Services	0.00	0.00	0.00
Current Expenses	0.00	2,000.00	0.00
Repairs & Alterations	0.00	0.00	0.00
Assets	0.00	0.00	0.00
Other	0.00	0.00	0.00
2. Estimated Total Revenues	0.00	0.00	0.00

Rule Title: _____

Rule Title: Rules And Conditions Upon Which Oil And Gas Operators May Access State Fore

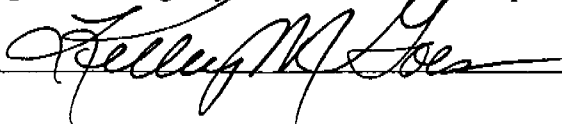
3. **Explanation of above estimates (including long-range effect):**
Please include any increase or decrease in fees in your estimated total revenues.

MEMORANDUM

Please identify any areas of vagueness, technical defects, reasons the proposed rule would not have a fiscal impact, and/or any special issues not captured elsewhere on this form.

Date: 6/26/07

Signature of Agency Head or Authorized Representative



QUESTIONNAIRE

(Please include a copy of this form with each filing of your rule: Notice of Public Hearing or Comment Period; Proposed Rule, and if needed, Emergency and Modified Rule.)

DATE: 07/27/2007

TO: LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

FROM: (Agency Name, Address & Phone No.) Division of Natural Resources
Parks and Recreation Section
Capitol Complex, Bldg. 3, Room 714
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

LEGISLATIVE RULE TITLE: Rules For Conditions Upon Which Oil And Gas Operations May
Access State Forests

1. Authorizing statute(s) citation W. Va. Code 20-1-7(30) and 20-5-22

2. a. Date filed in State Register with Notice of Hearing or Public Comment Period:

June 27, 2007

b. What other notice, including advertising, did you give of the hearing?

Statewide News Release (copy attached)

c. Date of Public Hearing(s) *or* Public Comment Period ended:

July 27, 2007 Noon

d. Attach list of persons who appeared at hearing, comments received, amendments, reasons for amendments.

Attached X

No comments received

- e. Date you filed in State Register the agency approved proposed Legislative Rule following public hearing: (be exact)

July 27, 2007

- f. Name, title, address and phone/fax/e-mail numbers of agency person(s) to receive all *written correspondence* regarding this rule: (Please type)

Robert Beanblossom, District Administrator

Parks and Recreation Section

Division of Natural Resources

Capitol Complex, Bldg. 3, Room 714

1900 Kanawha Boulevard East

Charleston, WV 25305-0662

- g. **IF DIFFERENT FROM ITEM 'f'**, please give Name, title, address and phone number(s) of agency person(s) who wrote and/or has responsibility for the contents of this rule: (Please type)

3. If the statute under which you promulgated the submitted rules requires certain findings and determinations to be made as a condition precedent to their promulgation:

- a. Give the date upon which you filed in the State Register a notice of the time and place of a hearing for the taking of evidence and a general description of the issues to be decided.

N/A

b. Date of hearing or comment period:

c. On what date did you file in the State Register the findings and determinations required together with the reasons therefor?

d. Attach findings and determinations and reasons:

Attached



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Fishing
Wildlife Diversity
Law Enforcement
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Administration
Publications
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Administration Home

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DNR Home

Joe Manchin III, Governor
Frank Jezioro, Director

News Release : July 5, 2007

Hoy Murphy , Public Information Officer (304) 558-3381 hoymurphy@wvdnr.gov
Contact: Ken Caplinger, Parks and Recreation Section (304) 558-2764
parks@wvdnr.gov

DNR Parks Section Files Legislative Rules for Review



The Parks and Recreation Section of the West Virginia Division of Natural Resources has filed legislative rule changes with the Secretary of State's office, according to DNR Director Frank Jezioro.

The proposed rule changes will be open for review and comment until noon on July 27, 2007. The availability of the proposed rule changes will be advertised in the State Register. In addition, the proposed rule changes will be available for review at the DNR Parks and Recreation Section Central Office in Charleston. Individuals interested in reviewing the proposed rule changes should contact this office at 558-2764.

Written comments may be submitted to Kenneth K. Caplinger, Acting Chief, Parks and Recreation Section, Division of Natural Resources, Building 3, Room 714, Capitol Complex, 1900 Kanawha Boulevard East, Charleston, WV 25305-0662.

Rules for conditions upon which oil and gas operators may access state forests.

These rules govern access to all state forests by operators seeking to drill for and produce oil and gas. Current law does not sufficiently protect publicly owned state forests from environmental damage as a result of extensive oil and gas operations which are currently occurring in several state forests. These rules are designed to protect the public interest by requiring higher standards be adhered to on public land.

****DNR****

HOT TOPICS...

| goWILD | WV State Parks | Wonderful WV Magazine | State of West Virginia Home Page |
| Law Enforcement | Wildlife Diversity |
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58CSR35

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OFFICE OF THE ATTORNEY GENERAL
SECRETARY OF STATE

**TITLE 58
LEGISLATIVE RULE
DIVISION OF NATURAL RESOURCES**

**SERIES 35
RULES FOR CONDITIONS UPON WHICH OIL AND GAS OPERATORS
MAY ACCESS STATE FORESTS**

§58-35-1. General.

1.1 Scope. -- This legislative rule governs the access to all state forests by operators seeking to drill for and produce oil and gas. This rule recognizes that the rights of the State as surface owner when the minerals are owned by others are governed by the terms of the severance deeds or leases, and by the common law "fairly necessary" doctrine as tempered by the "contemplation of the parties" doctrine. However, this rule recognizes that state forests are unique publicly owned lands that are an important resource for silvicultural and scientific research; developed and undeveloped outdoor recreation; propagation of forest trees, fish and wildlife; wildlife and fisheries management; aesthetic preservation; hunting and fishing; timber production; and demonstration of state-of-the-art forestry management and therefore should be managed on a multiple-use basis.

1.2. Authority. -- W. Va. Code §20-1-7(30) and §20-5-22.

1.3. Filing Date. -- June 27, 2007

1.4. Effective Date. -- _____

§58-35-2. Publication Notice.

2.1 The publication required by W. Va. Code §20-5-22(a) to appear in a qualified newspaper at least sixty (60) days prior to submitting an application for a well work permit shall include:

2.1.1. The name of the state forest;

2.1.2. The county in which the proposed drilling or other work will take place;

2.1.3. The name and address of the operator; and

2.1.4. The name and address of the mineral owner.

2.1.5. If the mineral owner is not the State:

2.1.5.a. The book and page where the most recent deed conveying or reserving the mineral interest lease is recorded;

2.1.5.b. The book and page where the lease granting the right to do the well work is recorded; or

2.1.5.c. The book and page where the latest transfer of the lease is recorded, if any.

2.1.6. The target formation name and depth;

2.1.7. The proposed possible well locations shown by G.P.S. coordinates in compliance with requirements of the Office of Oil and Gas G.P.S. locations, on a topographic map, and described in relation to particular topographical features and distances from existing wells;

2.1.8. The proposed possible use of existing roads for access to the proposed possible well sites; and

2.1.9. The locations of proposed possible new access roads shown on a topographical map.

2.2. The notice shall state that the Division of Natural Resources will accept public comments prior to the party's application to the Department of Environmental Protection for a drilling permit and shall give a postal address and an email address where the public may file comments;

2.3. A copy of the notice shall be sent to the Director of the Division of Natural Resources, the Division of Forestry, and the state forest superintendent:

2.3.1. Director hereinafter referred to shall mean the Director of the Division of Natural Resources;

2.4. The Director shall post the notice on the agency's web site, and email notice of the availability of the notice on the web site, and the publication newspaper and date, to every person or entity that has requested such notice and provided an active email address within fourteen (14) days;

2.5. The notice provided is good for six (6) months. A well work permit may not be issued for well work required to be the subject of a notice pursuant to this subsection more than six (6) months after the date of publication; and

2.6. The provisions of this subsection may not be waived except the provision of the immediately preceding subdivision may be waived by the Director for sixty (60) additional days.

§58-35-3. Notice of New Road Construction.

3.1. The written notice of new oil and gas road construction required by §20-5-22(b) to be provided to the Director, the Division of Forestry, and the state forest superintendent forty-five (45) days before the application for the well work permit is filed shall include:

3.1.1. A topographical map showing the proposed road location;

3.1.2. The proposed soil erosion and sediment control plan for the road required by the Office of Oil and Gas.

3.2. Written notice may be by fax, hand delivery, or first class mail, return receipt requested;

3.3. The Director shall post the notice on the agency's web site and email notice of the availability of the notice on the web site, to every person or entity that has requested such notice and provided an active email address within 14 days; and

3.4. The provisions of this section may not be waived.

§58-35-4. Notice of Maintenance.

4.1. The notice of maintenance of access roads required by §20-5-22(b) to be provided to the Director of the Division of Natural Resources, the Director of the Division of Forestry, and the state forest superintendent shall include:

4.1.1. The maintenance to be done;

4.1.2. The equipment to be used;

4.1.3. The name of the entity or individual doing the maintenance;

4.1.4. The address and telephone number of the entity or individual to be doing the maintenance;

4.1.5. The cell phone number of at least one person who will be present to do the maintenance;

4.1.6. The plan or the instructions given to the persons operating the machinery and supervising the operation of the machinery;

- 4.1.7. The date the maintenance will begin. If that dates changes, five (5) days notice must be given again; and
 - 4.1.8. The number of hours or days the expected maintenance will take place.
- 4.2. The notice may be given:
 - 4.2.1. By fax, sent and received at least five (5) days prior to entry;
 - 4.2.2. By hand delivery, received at least five (5) days prior to entry;
 - 4.2.3. By email or similar electronic communication, the receipt of which is acknowledged by the state forest superintendent five (5) days prior to delivery; or
 - 4.2.4. By actual telephone communication with the person to receive the notice or their agent authorized to receive these communications (not an answering machine).
- 4.3. The Director shall post this notice on the agency's web site and email that notice to every person or entity that has requested such notice and provided an active email address within five (5) days;
- 4.4. The provisions of this section may be waived by the Director in the event of an emergency affecting public safety or health or an emergency threatening imminent danger to a forest.

§58-35-5. Conditions for Access.

- 5.1. Further conditions for access to state forests as authorized by W. Va. Code §20-5-22 are set out below. The conditions set out below generally augment or replace those set out in West Virginia Erosion and Sediment Control Field Manual (Manual) of the West Virginia Office of Oil and Gas, Department of Environmental Protection, as authorized by W. Va. Code §22-6-6(d).
- 5.2. Gates that are locked and closed to the public shall remain locked at all times.
 - 5.2.1. After well work is completed, all keys that the state forest superintendent may have supplied to the operator or the operators' agents must be returned to the state forest superintendent by the operator. Thereafter, the operator must obtain the key from the state forest superintendent to get through gates that are closed to the public.
 - 5.2.2. While well work is in progress, the state forest superintendent may sign out keys to named individuals. Those keys may not be duplicated.

5.2.3. During well work when frequent access or access for possible emergency services is an issue, the operator will be expected to have a key holding attendant at the gate to allow vehicles in and out.

5.2.4. The operator shall reimburse the State for any losses or expenses due to failure to keep a gate locked, including without limitation:

5.2.4.a. Any state property lost or damaged;

5.2.4.b. Damage done to land, flora, and fauna as a result of an unlocked gate;

5.2.4.c. Locksmith and metal working for the repair or replacement of locks, keys, and metal working of gates; and

5.2.4.d. All newly constructed roads will be gated by the operator. All gates will be maintained and constructed according to specifications as established by the Director.

5.2.5. Except for bona fide emergencies the construction and maintenance of all well sites and roads will be restricted to the period beginning June 1 and ending November 15. The Director may require that operations be suspended during periods of inclement weather.

§58-35-6. Conditions of Access -- Introduction.

6.1. In addition to the authority set out in the introduction to the Manual, from time-to-time, require additional best management practices not discussed there, the Division of Natural Resources may for state forests require additional practices not set out here.

§58-35-7. Conditions for access -- Planning.

7.1. The conditions set out below are in addition to and supplement the provisions of Section 1., Planning, of the Manual.

7.2. The provision in the preamble to Section 1, Planning, regarding the operator meeting with the landowners is mandatory as provided in this rule.

7.3. In addition to the features to identify in Section 1.A.5, identify the following in order to avoid damage to state forest resources or interference with state forest uses:

7.3.1. Trails;

- 7.3.2. Archeological sites;
 - 7.3.3. Picnic and other developed facilities; and
 - 7.3.4. Overlooks and their viewsheds;
 - 7.3.5. Agencies, schools, and research organizations that use the state forest and their current and proposed usages of the forest for research and education that are known to the state forest superintendent;
 - 7.3.6. Any reference streams designated or used by other agencies known to the state forest superintendent; and
 - 7.3.7. The Director may require a well drilling location or new road construction to be moved if the same adversely impacts recreation use, natural resources, or other values.
- 7.4. In addition to the identification of significant features set out in Section I.A.5., the operator must check the Division of Natural Resources list of species that are endangered, threatened, "of concern", or rare to see if that list identifies any of them as being located in the area proposed to be disturbed. The operator must also check with the state forest superintendent and with any other resources known to the state forest superintendent for known locations of those plant and animal resources. If the Division of Natural Resources listing, information from the state forest superintendent, or if public comments on the proposed locations identifies locations of those species in the area intended to be disturbed, and the plant is identified or the plant community is verified by a qualified biologist then the operator must relocate the land disturbance, or mitigate the loss in another place that an independent botanist determines is likely to succeed.
 - 7.5. In determining the need for sediment controls, the Manual is a starting point, but difficult soil and other conditions may require more structures and other work.
 - 7.6. In determining surface water control in Section I.A.7, note surface water flow that will intersect possible road and site locations that will increase water on the road or site and require extra control, and take into consideration that cuts may cause groundwater to come on the road or site increasing flow and requiring extra controls.
 - 7.7. In order to reduce the area impacted on roads that will be gated to the public, unless environmental conditions dictate otherwise or unless waived by the Director, roads at 7% slope or less shall be sloped with appropriate drainage control.
 - 7.8. In determining revegetation needs and other requirements, this rule recognizes

that state forests are unique lands for biological study, preservation, and recreation.

§58-35-8. Conditions for Access -- Construction.

- 8.1. The conditions set out below are in addition to and supplement the provision of Section II, Construction, of the Manual.
- 8.2. The maximum grade limitation, Section II.A.1.a(1), does not apply to state forests. The final center line grade of the road must be 10% or less, with three exceptions set out below. Otherwise, limitations on gradient may not be waived by the Office of Oil and Gas or by the state forest.
 - 8.2.1. Final center line gradients not exceeding 15% are permissible for distances up to 200 feet.
 - 8.2.2. The 10% gradient may be exceeded for the purpose of installing broad based dips as provided elsewhere in this rule.
 - 8.2.3. The Director may waive these requirements if necessary to allow the use of a pre-existing road.
- 8.3. The stacking and piling of timber shall be done pursuant to Section II.A.
- 8.4. The clearing of woody material back from the roadway far enough to allow entrance of sunlight and wind with the goal of assisting in accelerating drying of the road surface which is given consideration in Manual Section II.A.1.b(2) (commonly called daylighting) is prohibited.
- 8.5. Regarding the requirements for road surface stabilization in Section II.A.1.b(3), it is recognized that the second paragraph of the introductory language to Section II of the Manual states that some of the standards for structures may not be used during the actual drilling operations, when a large amount of heavy equipment traffic is occurring, but rather will be utilized during the reclamation phase.
 - 8.5.1. The exception set out immediately above applies only to water bars and cross drains, and to temporary vegetation of roads and sites.
 - 8.5.2. Additional structures or practices may be required by the Director during actual drilling operations as set out in this rule.
 - 8.5.3. Road stabilization with gravel and fiber mats is required on slopes greater than 10% on existing roads. This requirement is not necessary if the average center line slope of a section is greater than 10%, but slopes up to 14% are used to allow for properly constructed broad-based dips.

8.5.4. Road stabilization with gravel and fiber mats is required where the road will remain wet at times other than after rainfall.

8.5.5. Where roads will be or become muddy or rutted during actual drilling operations, particularly during wet seasons, the Director can require one or more of the following during actual drilling operations:

8.5.5.a. Graveling with limestone or graveling with sandstone on roads that will generally be open to public access;

8.5.5.b. Graveling with sandstone on roads that will generally be gated to the public; and

8.5.5.c. Siltfencing and straw bales and other sediment and runoff controls along affected roadways and sites.

8.5.5.d. The Director shall require the method that is best consistent with the planned use of the road that provides the least permanent disruption to the forest.

8.6. Care must be taken to increase drainage ditch capacities in Section II.A.2.a(2) for water running off adjacent slopes and water seeping out of side slopes created when the road or site was or is excavated.

8.7. The clearing of trees and brush specified in Section II.A.2.b(2) shall be minimized.

8.8. Cross drains and water bars described in Section II.A.3 shall not be used where a broad based dip described in Section II.A.4 can be installed.

8.9. Instead of the spacing of culverts as set out in Table II-7, the following shall apply:

<u>Road Grade Percentage (%)</u>	<u>Culvert Spacing (feet)</u>
2-10	200
12	150
14	100

8.10. The spacing of cross drains/water bars, broad-based dips, and culverts set forth in Tables II.4, II.5, and II.7 are starting points. Where water coming from surface run-off, subsurface water brought to the surface by excavation, etc., or where soil conditions or surrounding vegetative conditions will increase the water, or soil, then closer spacing shall be used.

- 8.11. In addition to the requirements of Section II.A.6.b(7), adequate sediment control, and in the case of culvert outlets, riprap, shall be provided at all erosion and sediment control outfalls and culvert outlets.

§58-35-9. Conditions for Access -- Reclamation.

- 9.1. The conditions set out below are in addition to and supplement the provision of Section III, Reclamation, of the Manual.
- 9.2. Bulldozer tracking up and down slopes as provided in Section III.A.6 is not permissible for seed bed preparation except as approved by the Director of the Division of Natural Resources. Where tracking is used for compaction of slopes before preparation of seed bed, the seed bed must still be prepared with respreading of banked topsoil, discing, etc., as provided in Conditions for Access -
- Revegetation.
- 9.3. The regrading required by Section III B.1. need not be done if the current grade is acceptable and vegetation is occurring.
- 9.4. Consider planting or replanting native trees on side slopes.
- 9.5. Reclamation for disturbed areas created due to well maintenance, work-over, etc. shall be reclaimed in accordance with the Manual and this rule.

§58-35-10. Conditions for Access -- Revegetation.

- 10.1. The conditions set out below are in addition to and supplement the provision of Section IV., Revegetation, of the Manual.
- 10.2. The adjustment and modification of the standards in the Manual provided in Section IV.A.1. must have the prior and documented approval of the Director of the Division of Natural Resources in addition to the Office of Oil and Gas before they are applied to state forest property.
- 10.3. Seed bed preparation as provided Section IV.B.2 may be used for temporary seeding. For seed bed preparation for permanent seeding the seed bed must be loosened by discing on the contour, a root rake or sub-soil tiller. In the alternative, the original top soil may be banked and spread loosely without discing, raking, or tilling if it is not compacted.
- 10.4. The seed mixtures for temporary seeding in Manual Section IV.C.1 are approved for use in the state forests.
 - 10.4.1. Regardless of vegetative cover, temporary seed mixtures are not best for wildlife and should not be carried through the restoration process. If a

temporary seed mix is used, it should be disced under during restoration and reseeded with the recommended permanent mix. Under no circumstances should KY31 fescue be planted.

- 10.5. Instead of the seed mixtures for permanent seeding in Manual Section IV.C.2.c, one of the following seed mixtures shall be used and verified prior to planting:

10.5.1. Wildlife Seeding Recommendations For Forest Roads;

Seed Name	Rate (lbs/acre)
Red Top	2
Ladino Clover	4*
White Dutch Clover	4*
Mammoth Red Clover	5*
Birdsfoot Trefoil	10*
If using a hydroseeder, add: Switch Grass	2
*Seed must be inoculated with fresh species specific innoculate.	

Nurse Crop (Pick only one)	Rate (lbs/acre)
Oats	10 (Spring)
Winter Wheat	10 (Late Fall)
Rye	10 (Fall)
Planting Notes: 1. Preferred planting dates are March 15 through June 1 and August 15 through November 15. Planting outside of these dates may result in an unsuccessful planting. 2. Unless soil samples are taken and analyzed, 10-20-20 fertilizer and lime should be applied at 400 lbs and 3 tons per acre respectively. 3. To ensure appropriate soil moisture, straw mulch should be blown on at 1.5-2 tons per acre. 4. Because this mix requires little mowing, the cost savings can be redirected towards the addition of lime in later years.	

10.5.2. Monongahela National Forest, Native Mix for Rights-of-Way; and

Common Name	Scientific Name	Rate (lb/acre)	Percent
Little Bluestem	<i>Schizachyrium scoparium/Andropogon scoparius</i>		20%
Canada Wild Rye	<i>Elymus canadensis</i>		35%
Switch Grass	<i>Panicum virgatum</i>		20%
Partridge Pea	<i>Chamaecrista fasciculata/Cassia fasciculata</i>		25%
		Apply above mix: 15 lbs per acre	
Oats (Nurse Crop for Spring- September 1)	<i>Avena sativa</i>		
Annual Ryegrass (Nurse crop if planting after September 1)	<i>Lolium multiflorum</i>		
		Apply one (1) nurse crop: 30 lbs per acre	
		TOTAL SEEDING: 45 lbs per acre	

10.5.3. Cut banks, fill banks, and level areas that are abandoned from future use may in addition be reclaimed with tree plantings.

10.5.4. The use of native plants for revegetation may be required by the Director of the Division of Natural Resources, if in his opinion, seed mixtures are available which are as effective, are as readily available, and as cost effective as the non-native mixes specifically shown herein.

10.6. Only straw, not hay, may be used.

§58-35-11. Conditions for Access -- Maintenance.

11.1. The conditions set out below are in addition to and supplement the provision of Section V, Maintenance, of the Manual.

- 11.2. The requirement in Section V.A.1 that all access roads and well sites are to be maintained throughout the life of the well must be strictly observed. Culverts, road ditches, broad-based dips, and diversion ditches must be maintained in proper working order. Whenever the soil is disturbed on any well road by well-related activity, it will be revegetated and otherwise reclaimed according to the Manual and this rule.
- 11.3. The seed mixtures in the previous section on revegetation will be used rather than those described in Manual, Section V.B.2.
- 11.4. Where ruts develop in the road for any reason, blading the road level to fill in the ruts is not acceptable maintenance practice, particularly where this scrapes off vegetation. Water bars and cross drains need to be maintained, and if previous structures are insufficient, new control features, rock, or fiber mats are to be added.
- 11.5. Where road slope is such that vegetation cannot be maintained or ruts persist, rock, and if necessary, fiber matting must be used.
- 11.6. Where broad-based dips, water bars, and culverts prove to be insufficiently spaced, new structures must be added. Until a culvert can be installed, hardened cross drains may be used temporarily.
- 11.7. Where locations in the road do not dry up after rains, the road must be maintained by adding rock and/or fiber matting.

Agency Response to Comments

The West Virginia Division of Natural Resources, Parks and Recreation, received comments from the public, the oil and gas industry, and the State Division of Environmental Protection relative to the proposed rules. Most from the general public were supportive of the rule and suggested utilization of native seed mixtures for erosion control as well as requiring pre-work inventories of plant and animal species. The proposed rule was altered a bit to help address the native seed suggestions. It was also altered to reflect DEP comments on broad-based dips and seed bed preparation as well as industry comment on the length of the construction season. Overall comments were incorporated into the rule or rejected based upon the agency's interpretation of the legislative mandate pursuant to Chapter 20-5-22.

Bob Beanblossom

From: Ken Caplinger
Sent: Monday, July 16, 2007 10:52 AM
To: Bob Beanblossom
Subject: FW: Comments on proposed Oil & Gas rules.

I will forward all these to you for retention and safe keeping.

-----Original Message-----

From: Doug Wood [mailto:CHINGWE@peoplepc.com]
Sent: Saturday, July 14, 2007 7:23 AM
To: Ken Caplinger
Subject: Comments on proposed Oil & Gas rules.

Howdy Ken, attached are comments from the Mary Ingles Trail Blazers, an organization I belong to that enjoys maintaining trail in Kanawha State Forest. I hope these comments are helpful. Thanks for the good conservation work in the Forest that you and your agency are doing. Seems to me that a long time ago, under Cordie Hudkins' leadership, the policy of Parks was to prevent the introduction of non-native plants into the parks. Could be just a foggy memory. It's a good idea though, to help conserve native biodiversity.

Chingwe/Doug Wood

"The wilderness, rough, harsh, and inexorable, has charms more potent in their seductive influence than all the lures of luxury and sloth. And often he on whom it has cast its magic finds no heart to dissolve the spell, and remains a wanderer and an Ishmaelite to the hour of his death."---Francis Parkman 1908.

MARY INGLES TRAIL BLAZERS

A Chapter of the West Virginia Scenic Trails Association
P.O. Box 780
Poca, WV 25159

TO: Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Bldg. 3, Rm. 714
Capitol Complex
1900 Kanawha Blvd. East
Charleston, WV 25305-0662

FROM: Doug Wood, President
Mary Ingles Trail Blazers

DATE: July 13, 2007

We appreciate the opportunity to comment on the proposed legislative rule changes for oil and gas operations in Kanawha State Forest. You may be aware that the Mary Ingles Trail winds its way through Kanawha State Forest. We have maintained the trail for over 20 years now through the Forest, and it has been a pleasure to do so. However, our efforts have at times been foiled by activities of oil well developers and maintainers. These activities have typically been carried out without full consultation with Kanawha State Forest staff and other staff of the Parks and Recreation Section. The rule changes recently proposed by your Division will go far to improve the current state of affairs in the Forest. I foresee the day when we volunteers and Forest staff will no longer have to go out to clean up some mess the heavy equipment operators have made on the trails.

We think there are only a few other changes necessary to the rules that would meet the mission of the Parks and Recreation Section better. The WV Department of Environmental Protection has in the past two years or so, required greater use of native plants in reclamation efforts by coal companies on mined lands. Native trees, shrubs, forbs, and grasses are now being used on a regular basis by coal companies to meet this requirement. Seed and plant sources are more readily available than they have ever been before in West Virginia. This is due largely to an increase in the use of such plant materials over the past two decades or so on Forest Service and National Park Service disturbed lands in our region. Surely if the WV DEP, the U.S. Forest Service, and the National Park Service recognize the great benefit of native plants to wildlife and to erosion control on land reclamation projects under their jurisdictions, the WV DNR---which is charged with protecting and enhancing West Virginia's Park lands (including Kanawha State Forest)---can require the same industries that operate on National Forest and National Park lands to utilize the same native plants required by these agencies. The use of non-native plantings amidst state forests and parks is archaic, harmful to native biodiversity, and unnecessary to reach

the intended goals of such plantings---erosion control and wildlife food enhancement. Both National Park and National Forest native plant reclamation lists should serve as models for your agency's requirements of the oil and gas industries.

Another requirement that makes great sense when the protection of native biodiversity is so important---as it is in your agency's day-to-day operations of our state parks---is one that expects the oil and gas developers and maintainers to inventory plants and wildlife in the proposed project area long before plans for development or maintenance are finalized. Such an inventory is expected for most projects on federal lands, and for proposed coal mines and federally funded highway projects. Sound judgments about where to locate proposed roads and well-heads, and how to mitigate for environmental damage can only be made when such inventories are available. Please consider requiring the oil and gas developers and maintainers to perform such inventories before final plans are made.

An inventory of existing and proposed recreation facilities should also be made before finalizing any plans. In this manner, damages made to such facilities can be predicted and the costs for repair can be charged to the companies, or those companies can be required to make the repairs themselves as part of the mitigation for damages.

To reiterate, we believe three requirements should be incorporated into the proposed rule changes:

- (1) - The use of native seeds and plants in plantings on oil and gas roads, well-heads and other disturbances,
- (2) - an inventory of existing biota in the vicinities of proposed oil and gas projects, and
- (3) - an inventory of existing and proposed recreation facilities in the project vicinities, so the companies can pay for mitigation appropriately.

Again we thank you for the opportunity to comment on the proposed rule changes. We hope these comments have helped your agency better meet its objectives for protecting and enhancing our lands held in trust by your agency. If I can be of further assistance, please feel free to contact me via e-mail (CHINGWE@peoplepc.com) or via phone (304-755-0440).

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 9:15 AM
To: Ken Caplinger
Subject: FW: Drilling Rules

From: Martinjul@aol.com [mailto:Martinjul@aol.com]
Sent: Mon 7/23/2007 2:54 PM
To: West Virginia State Parks
Subject: Drilling Rules

I like the rules you propose. Please add two more rules--1. Use native plants in reclamation and 2. do an inventory of plants and animals before road building and well drilling.

Julian Martin
1525 Hampton Road
Charleston, WV 25314

"Unless someone like you cares a whole awful lot, things aren't going to get better, they're not!" From The Lorax by Dr. Suess

"Strip mining is rampant right now, and it's raping, it's raping the countryside," she said. "What if you knew that every time you flip on your light switch a mountaintop in West Virginia just blows up? It's crazy." Kathy Mattea quoted by Ken Ward, Charleston Gazette, June 28, 2007

"If we destroy the mountain, do you know how much electricity we get out of that mountain for the coal? An entire mountain provides an hour's worth of electricity for the U.S." Mike McKinney, University of Tennessee Geology Professor, as quoted in the June 2007 Highlands Voice.

For The Mountains
Julian Martin
Vice-President for State Affairs
West Virginia Highlands Conservancy www.wvhighlands.org
1525 Hampton Road, Charleston, WV 25314

Contact me(martinjul@aol.com) for a trip to Kayford Mountain to see active and so-called reclaimed mountain top removal. Also contact me for I Love Mountains t-shirts, hats, bumper stickers and Friends Of The Mountains bumper stickers and for speakers, information and exhibits on environmental issues in West Virginia.

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Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 8:52 AM
To: Ken Caplinger
Subject: FW: DNR rule

From: sallye0421@aol.com [mailto:sallye0421@aol.com]
Sent: Tue 7/24/2007 8:03 PM
To: West Virginia State Parks
Subject: DNR rule

Dear Mr. Caplinger,

"I am concerned about the abuses of oil and gas drillers in the state forests. Our state forests are one of our most valuable assets. The DNR proposed rule greatly improves the protections that Kanawha State Forest and all state forests will receive. I support all of the good, new requirements that the Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants be done before the construction of any well site or well road. I am studying to become a Master Naturalist and am so pleased about these proposed protections for our state forests.

Sincerely,

Sally Egan

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7/25/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 9:15 AM
To: Ken Caplinger
Subject: FW: Comments on Drilling Rules

From: Judy Bonds [mailto:judy@crmw.net]
Sent: Mon 7/23/2007 2:46 PM
To: West Virginia State Parks
Subject: Comments on Drilling Rules

Dear Chief, Parks and Recreation,

I am very concerned about the abuses of oil and gas drillers in State Forests. My children and grandchildren deserve to have a right to use these parks in the manner in which I was able to enjoy these parks.

The rule greatly improves the protections that Kanawha State Forest and all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule.

However, I think that all re-vegetation should be done with native plants, and not with non-native seeds.

We all know that native plants are here for a reason and that introduction of non native species has very bad consequences.

I think a full inventory of the animals and plants should be done before the construction of any well site or well road.

Julia Bonds
P.O. Box 135
Rock Creek, West Virginia 25174

7/25/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 9:16 AM
To: Ken Caplinger
Subject: FW: DNR rules for drilling in State Forests

From: Elizabeth Hicks [mailto:selizhicks@hotmail.com]
Sent: Mon 7/23/2007 1:28 PM
To: West Virginia State Parks
Subject: DNR rules for drilling in State Forests

Dear Mr. Caplinger,

As a member of the Kanawha Trail Club and a frequent visitor to Kanawha State Forest, I am concerned about the damage done to our state forests by irresponsible oil and gas drillers.

I support the DNR's new oil and gas well drilling requirements, but urge that all revegetation be done with native seeds and plants. Further, I believe a preliminary inventory of plants and animals should be conducted prior to the construction of any well site or well road.

Given the damage done to Wildcat Trail, it seems the oil and gas industry will treat the state forests as callously as they are allowed. Without an baseline measure of flora and fauna, and strict guidelines for revegetation, when the time comes to "put it back the way they found it," I believe there will be a marked difference between the local citizens' and the industry's standards of forest restoration.

Sincerely,

Sarah E Hicks

See what you're getting into...before you go there. Check it out!

7/25/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 9:16 AM
To: Ken Caplinger
Subject: FW: Proposed Rules for Conditions upon Oil and Gas Operators

From: alice knight [mailto:alicheliz@hotmail.com]
Sent: Mon 7/23/2007 10:26 AM
To: West Virginia State Parks
Subject: Proposed Rules for Conditions upon Oil and Gas Operators

I am concerned about the abuses of oil and gas drillers in State Forests generally, and Kanawha State Forest in particular [because I (give the reason for your interest)]. The rule greatly improves the protections that Kanawha State Forest and all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule. However, I think that all revegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road.

In more recent times, there has been recognition of the necessity of eradicating non-native, invasive plants in order to better balance the environment. This is not just an effort in the state of West Virginia, but a national effort. It has been proven that ecosystems are very delicate, and any non-native species or plant upsets this balance. When we have an opportunity to re-establish an area with native plants, why not take advantage of it. It is just one miniscule area of the state, but a step in the right direction.

Alice Knight
Member of Kanawha State Forest Foundation

http://imagine-windowslive.com/hotmail/?locale=en-us&ocid=TXT_TAGHM_migration_HM_mini_pcmag_0507

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 9:16 AM
To: Ken Caplinger
Subject: FW: Please protect our state forests

From: Matt Keller [mailto:mpaulkeller@gmail.com]
Sent: Mon 7/23/2007 10:17 AM
To: West Virginia State Parks
Subject: Please protect our state forests

Kenneth K. Caplinger
Acting Chief, Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714
Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Dear Mr. Caplinger,

I am deeply concerned troubled about the abuses of oil and gas drillers in West Virginia's State Forests. I am West Virginia citizen and frequently use our state forests for recreation and spiritual renewal. I visit several forests each year but spend a lot of time at Cooper's Rock. These forests are a state and national treasure and deserve strong protection so that future generations will be able to enjoy them as we have.

The DNR's proposed rule greatly improves the protections that Kanawha State Forest and all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. Exotic invasive plant species are wreaking havoc on native plant communities and it would be wise to not add to that problem. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road. The value in our state forests ecologically is that they provide unbroken tracts of forest land. Any new roads will erode that value and should be done with great hesitancy and caution if at all.

Sincerely,

Matthew P. Keller
Rt. 2 Box 287
Masontown, WV 26542
304-864-3391
mpaulkeller@gmail.com

7/25/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 9:15 AM
To: Ken Caplinger
Subject: FW: Comment on the New Rule Protecting State Forests Re:Gas and Oil Drilling

From: Dash, Rachel [mailto:Rachel.Dash@camc.org]
Sent: Mon 7/23/2007 5:30 PM
To: West Virginia State Parks
Subject: Comment on the New Rule Protecting State Forests Re:Gas and Oil Drilling

To Whom It May Concern,

I am deeply concerned about the oil and gas drilling in state forests and what ill conceived methods have done to the natural beauty and health of these wonderful places of recreation and renewal.

I regularly hike in Kanawha State Forest and other WV state forests with friends and we have been shocked and dismayed by the devastation we have witnessed.

The rule is a great improvement. I support all of the new requirements that the DNR have in the rule. However, I strongly believe that all vegetation should be done with native plants and seeds in order to preserve the integrity and health of the forests. It is good stewardship and only makes sense that a full inventory of the animals and plants be required to be done before the construction of any wells or new roads.

Rachel Dash
125 Eagle Rock Drive
Alum Creek, WV 25003

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7/25/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 9:15 AM
To: Ken Caplinger
Subject: FW: Comment on Proposed Rules for Oil and Gas drillers in Kanawha & other state forests

From: Janet Keating [mailto:mountainwild49@yahoo.com]
Sent: Mon 7/23/2007 6:30 PM
To: West Virginia State Parks
Subject: Comment on Proposed Rules for Oil and Gas drillers in Kanawha & other state forests

To: Kenneth K. Caplinger, Acting Chief
Acting Chief, Parks and Recreation Section, Division of Natural Resources

Dear Mr. Caplinger,

Thank you for the opportunity to comment on new rules for oil and gas drilling in Kanawha State Forest and all our state forests. The following is a partial list of my concerns:

~I am concerned about the abuses of oil and gas drillers in State Forests regarding long-term and immediate impacts on breeding bird habitat, such as forest fragmentation on breeding, especially for neo-tropical migrants like the Cerulean Warbler. I'm very concerned about all the impacts on interior species like the Ovenbird, which is a ground nester.

~I am concerned about the impacts of non-native plant species not only on native flora, but impacts on wildlife species populations who depend on specific plants for food or shelter.
The rule greatly improves the protections that Kanawha State Forest and all State Forests will receive.

~I support all of the good new requirements that the WV Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants and not with non-native seeds. We have one of the most bio-diverse forests in the world; let's keep it that way!

~Additionally, a full survey of the biota should be conducted before the construction of any well site or well road.

Thank you for considering my comments. Please keep me apprised of additional developments and opportunity to comment further.

Sincerely,

Janet Keating
126 Shockey Drive
Huntington, WV 25701

7/25/2007

Janet Keating, Co-Director
Ohio Valley Environmental Coalition
P.O. Box 6753
Huntington, WV 25773-6753
304-522-0246 phone
304-522-4079 fax
mountainwild49@yahoo.com

www.ohvec.org

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Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 9:14 AM
To: Ken Caplinger
Subject: FW: New rules

From: joey simonton [mailto:jazdrums1@yahoo.com]
Sent: Mon 7/23/2007 7:26 PM
To: West Virginia State Parks
Subject: New rules

I support the new rules that are being proposed for drilling/exploration in the State Forests. Please help us maintain these lands as the beautiful, useable spaces they are and get this passed.

Joey Simonton
Charleston, WV

Take the Internet to Go: Yahoo!Go puts the Internet in your pocket: mail, news, photos & more.

Bob Beanblossom

From: West Virginia State Parks
Sent: Monday, July 23, 2007 9:23 AM
To: Ken Caplinger
Subject: FW: proposed rule on oil & gas drilling in state forests

From: Becky McLaughlin [mailto:BeckyOLou@suddenlink.net]
Sent: Sun 7/22/2007 11:15 AM
To: West Virginia State Parks
Subject: proposed rule on oil & gas drilling in state forests

As a frequent recreational user of Kanawha State Forest for over fifteen years, I welcome the protection that can be afforded to all of our state forests by the proposed rule; I and my family have enjoyed picnics, hiking, biking & cultural events that have been put on in KSF & many other of our state forests; we have taken out-of-state guests to our forests & arranged family reunions there, too; our forests offer wonderful experiences & have a proud natural heritage that we can pass along from generation to generation.

As a member of the Kanawha Trail Club, I have helped in some small manner over the years with KSF improvements from abuses of the past; what better can you do for the forest than prevent abuses of the future, whether they be accidental, neglectful or deliberate in nature; I have participated in many coalitions & committees that involved public, private & state interests regarding KSF, and, generally, compromises are reached, but only after a damaging situation has occurred. Your agency's proposed rule can make a difference before such a damaging situation occurs, and I truly appreciate your efforts

Carl McLaughlin

Bob Beanblossom

From: West Virginia State Parks
Sent: Monday, July 23, 2007 9:23 AM
To: Ken Caplinger
Subject: FW: Proposals for drilling in state forests.

From: OpossumVet@aol.com [mailto:OpossumVet@aol.com]
Sent: Sun 7/22/2007 7:31 PM
To: West Virginia State Parks
Subject: re: Proposals for drilling in state forests.

Dear Mr. Caplinger,

I am writing to comment on proposed rules/regulations for drilling in state forests. I suppose at this point, it's too late to stop ANY drilling in state forests, which would be my preference, so will comment instead on the proposed regs.

I am appreciative that drillers must meet with state forest personnel before applying for a permit. I would like to see them meet with other stakeholders as well. It is the public's forest and the public should have input about "where."

I appreciate that DNR has put some environmental protections in it. Specifically, that culverts etc must be placed, that drillers must not clear more than is absolutely necessary, that DNR can require them to build roads to complement other uses in the forests. However, to minimize damage to the surface, I would like to see that they may not work in inclement weather, not that there is any choice in the decision.

I'm glad to see that drillers must take into account endangered species that are already on lists. Are there any forests that have NOT had such an evaluation done in the last 5 years? If so, I would like to see this done before drillers are allowed to drill.

I'm also very pleased that seeds that benefit wildlife must be used. I would prefer that it state that native plants must be used to try to prevent problems such as have developed with kudzu, multiflora rose and other ground covers.

In general, this plan affords reasonable protections and I thank you for that. Please take into account the other issues I have raised.

Thank you.

Anne Gentry, D.V.M.
6440-A Starlite Drive
Sissonville, WV 25320
304-372-3802 (w)

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7/25/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Monday, July 23, 2007 9:23 AM
To: Ken Caplinger
Subject: FW: Oil and Gas Drilling in State Forests

From: Peter Shoenfeld [mailto:pshoenfeld@gmail.com]
Sent: Sun 7/22/2007 8:18 PM
To: West Virginia State Parks
Cc: martinjul@aol.com
Subject: Oil and Gas Drilling in State Forests

I am concerned about the abuses of oil and gas drillers in State Forests because:

- I believe the DNR should protect the lands in our state forests in a natural state
- I see no public benefit to the public in turning these lands over to industrial interests
- Burning carbon fuels causes global warming and eventual planetary disaster. All the coal produced on private lands in WV is bad enough; our public lands should not be used to make things worse.

The rule greatly improves the protections that Kanawha State Forest and all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road."

Bob Beanblossom

From: West Virginia State Parks
Sent: Monday, July 23, 2007 9:22 AM
To: Ken Caplinger
Subject: FW: Comments: DNR Drilling Rules

From: Adam Webster [mailto:woodswanderer@hotmail.com]
Sent: Mon 7/23/2007 3:51 AM
To: West Virginia State Parks
Subject: Comments: DNR Drilling Rules

Kenneth K. Caplinger, Acting Chief
Division of Natural Resources, Parks and Recreation Section
Capitol Complex, Building 3, Room 714
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Mr. Caplinger:

I am a sixth generation West Virginian. My kin come from all over the state, ranging from Wheeling, Shepherdstown, Buckhannon, Lewisburg, Charleston, Oceana, and more. Obviously, my interests in the well-being of our state is deeply rooted.

Currently, I am traveling in California and Siberia... learning about environmental regulations related to energy and water resources (including oil and natural gas). I want to let you know that there is opportunity for West Virginia to set a quality nationwide example of ecologically, economically, and socially fair regulations.

However, I believe we are currently on the lower end of the scale.

I am deeply concerned about the abuses of oil and gas drillers in West Virginia, particularly on public lands, such as state forests. These are public resources-- for the benefit of the public and the common good. Public lands are the places that foster the "wild and wonderful" that make so many West Virginians proud, and attract thousands of vistors annually.

As a young West Virginian-- as one of those hoping to provide direction for the future of our state, I ask that you consider how environmental regulations affect the retaining rate of our population. By not providing adequate protection of our natural resources, without maintaining healthy and sustainable communities, upcoming generations continue leaving our state. This is a cycle of neglect and disrepair that has plagued our state for too many years. Each day I hope that it will stop-- that we will cherish and maintain our land, communities, economy, and environment.

I commend the current rule proposed by your agency because it greatly improves the protections that Kanawha State Forest and all other state forests will receive. I support all of the new requirements that the Department of Natural Resources is proposing in the rule.

However, I think that reclamation and revegetation should be done with native plants, and not with non-

7/25/2007

native seeds. Revegetating with native seeds is a practice adamantly used in some areas of California and other states, in order to maintain ecosystem integrity. Let's join these places in being leaders in reclamation and restoration of our lands. We cannot let the nation forget about the endemic diversity of our forests-- and we should not ruin it. We should protect native plant species, and by doing so we will also be fostering native animals and ecosystem processes in one of the most biodiverse regions-- the Appalachians-- in North America.

Native vegetation also protects and sustains headwater streams, rivers, and other water resources. Water is indeed one of West Virginia's most valuable resources and cumulatively, every environmental practice and regulation has a tremendous impact on these fragile and susceptible resources.

Why would we purposefully jeopardize our uniqueness in the world by continuing the practice of planting non-native species? Why do we plant these species and then spend millions of dollars in later years removing them?

I also believe a full inventory of animals and plants should be done before the construction of any well site or well road. Without an inventory, it is quick and easy for companies to claim post-operation that a species, habitat, or other ecological condition was not present. Set the bar high and protect our lands for future generation-- or we will leave. I assure you-- we will leave.

I appreciate your effort to protect public lands; however, let's move beyond words on paper, and practice sensible, sustainable management.

Sincerely,

Adam Webster
PO BOX 13
Montrose, WV 26283
woodswanderer@hotmail.com
304-704-5385

Work:
Adam Webster
Conservation Director
West Virginia Rivers Coalition
801 North Randolph Ave. Elkins, WV 26241
Office: (304) 637-7201
Fax: (304) 637-4084
awebster@wvrrivers.org

7/25/2007

*To: Bob B.
for consolidated
retention
KC
7/18/07*

07/17/07

Kenneth Caplinger, Acting Chief, Parks and Recreation Section, DNR
Bldg. 3, Rm. 714, Capitol Complex
1900 Kanawha Blvd. East
Charleston, WV 25305-0662

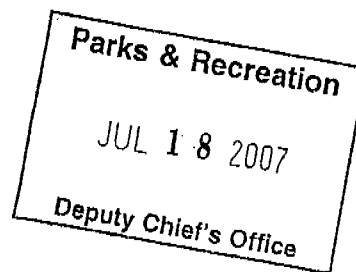
Mr. Caplinger,

I am writing to express my concern about abuses of WV state forests by oil and gas drillers. Our state forests are treasures of immeasurable value to present and future generations and our stewardship now is vital. DNR's new rules for protection are good ones and the Division should be commended for proposing these rules. I urge DNR to continue to use every resource at its disposal to enact and maintain strict rules of protection for our forests, including requiring usage of native plants for revegetation.

Sincerely,

Kathleen Jordan

Kathleen Jordan
855 Observatory Dr.
St. Albans, WV 25177



Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 8:52 AM
To: Ken Caplinger
Subject: FW: Public Comment on the "Proposed rule and protections for West Virginia State Forests"

From: pkourey [mailto:pkourey@newwave.net]
Sent: Tue 7/24/2007 7:48 PM
To: West Virginia State Parks
Subject: Public Comment on the "Proposed rule and protections for West Virginia State Forests"

Dear Mr. Caplinger,

I appreciate the support and attention you are giving to the forests of West Virginia. As a frequent user of the state forests and parks, I am encouraged by the recent legislation and proposed rules to protect them. Especially after seeing the destruction that was made in the Kanawha State Forest last year by an oil and gas company.

I strongly support the use of native vegetation at the time revegetation takes place in all our state forests. I believe native vs. non-native seed and vegetation enhances the habitat to flourish as is expected in our state. Using native seeds and vegetation prevents any unruly non-native vegetation to take adverse effects on our beautiful forests and parks.

Please take time to strongly consider adding the use of native seeds and vegetation to the new rules.

I have full faith that you will do the right thing for our forests.

A forest supporter,
Peggy Kourey

7/25/2007

Bob

DAVID B. McMAHON • ATTORNEY AT LAW

1624 Kenwood Road, Charleston, West Virginia 25314

Phone 304-344-3620 • Day 304-415-4288 • Fax 810-958-6143

e-mail wvdavid@access.mountain.net

July 26, 2007

Parks & Recreation

JUL 27 2007

Deputy Chief's Office

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714
Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662.

Re: Public Comment on Rule on Conditions upon Which Oil and Gas Operators May
Access State Forests.

Dear Sir:

I am writing to comment on the above Rule. Although I am a registered lobbyist for a public interest law firm, I am filing these comments on my own as an individual member of the public. I am a member of the Kanawha State Forest Coalition that got the bill passed by the Legislature that requires these rules. I am also a member of the new West Virginia Surface Owners Rights Organization. While most of the members of both organizations will agree with most of what I have to say, I am, strictly speaking, speaking only for myself. Some of my comment may add documentation of their concerns expressed in separate comments.

General Comments

I want to first generally offer high praise for the proposed rule. Under the common law court cases, drillers are allowed to do what is "fairly necessary" to the surface to explore for and produce their minerals. That is supposed to be a balancing of the rights and interests of the surface and the mineral owner. In fact the drillers have experience, money, lawyers, and most importantly, surprise, on their side. The result is that the scales are not balanced and drillers often do what they want to. Even when the State is the surface owner, this is true. The individual employees of the State have less experience in this, less money and fewer lawyers on their side. And the only existing legal requirement for notice provides only 15 days and results in surprise, and insufficient time to become educated and react appropriately. It is important that the Rule be passed so that the

State's position on what is "fairly necessary" is known and constant for its employees and for the drillers to see.

In addition to the common law "fairly necessary" balancing of interests tests, there is also the State's police power interest in the general well being of the public relating to erosion and sediment control. Since the dust bowl days the states power to regulate agriculture and other surface activities to preserve the soils has been accepted. In West Virginia this is important not just to save the soils, but to keep the rivers and streams from being silted up, as has often happened to the pond and streams of Kanawha State Forest.

West Virginia's expression of this power in the area of oil and gas drilling is a "Field Manual" for the planning, construction and maintenance of oil and gas sites and access roads. However, this is not the same as the surfaced owners right to only have the driller do what is fairly necessary. Particularly in the case of a State Forest, more and different protection is needed. So it is wise that this Rule started with, but built upon, the Department of Environmental Protection, Office of Oil and Gas's "Erosion and Sediment Control Field Manual." Clearly that is a good thing to have, but clearly from what has happened to at least Kanawha State Forest, it is not enough.

The Rule builds upon the Field Manual wisely in many areas.

In addition theses general comments, below I offer specific comments on particular provision of the proposed Rule.

Specific Comments

I am making my specific comments in the order they appear in the proposed rule and will reference the Rule sections to which the comments apply.

2.1.7; 3.1; 4.1 – The fact that proposed locations of future well sites and access roads are part of the public notice requirement is much very appreciated. In particular, the topographic map with approximate proposed locations will be most useful. It is understood that the locations indicated on the topo maps etc. will not be as accurate as a survey at this preliminary stage of planning. However, having an indication of the potential well sites and roads enables the public, many of whom are intimately familiar with the forests, to provide information to the driller and to the State on the impact of the proposed well work.

2.4 – The use of Internet distribution of these notices to those members who have expressed particular interest is much appreciated, cheap and effective.

4.1 – It is regrettable that the statute does not give more lead time notice to the public of maintenance.

4.1.6 – One of the biggest problems in the Forest is the inappropriate road maintenance techniques. This provision that requires revealing to the Forest Supervisor the instructions given to the dozer operator by the oil and gas driller is very beneficial. It will require some actual attention and planning to maintenance by driller supervisors, and reduce uneducated damage by bull dozer operators not schooled in appropriate maintenance techniques. It allows Forest personnel to make sure the bull dozer operator is properly instructed. More will be said about particular techniques later.

5.2.4 – The driller should also reimburse the State for time spent by its employees dealing with problems created by the driller.

7.3; 7.4 – It would be preferable to require the driller to do an entire biological inventory of the area to be disturbed. However, with these provisions at least the driller has to look at known sources of information. And the public comment on the published locations can add to what is known by the Forest and the driller before making final site and road location decisions.

7.3.7 – This is a good practical application of the “fairly necessary” legal doctrine of the State’s rights as a surface owner.

7.7 – The appropriate drainage control for roads with a 7% grade or less should be based on outsloping and not insloping. Insloping roads requires a drainage ditch on the highwall side of the road. The space needed for the drainage ditch increases the total width of the disturbed area for the road. Increased width and disturbance is not good. The drainage ditch must itself drain somewhere, so culverts from the drainage ditch under the road must be installed. This adds expense for the driller, and problems with how to prevent erosion at the culvert outfall. More than that, at least in Kanawha State Forest the culverts rarely work long before they clog up, and then they are only rarely cleared or otherwise maintained. Outsloped roads do not cut such a wide swath through the Forest. They drain directly off to the side, as long as the bulldozer operator doing maintenance treats the shoulder properly.

Some fear is sure to arise that an outsloped road is more dangerous for the heavy equipment drivers. However, one study by the United States Department of Agriculture Forest Service has shown that it is only outsloped road templates with grades that greater than 7 percent that can appear overly steep to a driver and give the impression the vehicle might slide off the road. See “Traveled Way Surface Shape”, USDA Forest Service, Technology & Development Program, October 1997, 9777 1808–SDTDC, page 6, also at

<http://www.stream.fs.fed.us/water-road/w-r-pdf/surfaceshape.pdf>. In addition, the other requirements of this rule should keep the roads in better shape.

The only way to counter this point as supported by this study, should be contrary studies, or statistics of trucks etc. sliding into ditches on properly maintained insloped or outsloped roads less than 7%. This determination should be based on science. See the footnote for more support for this position.¹

7.8 – The State Erosion and Sediment Control Manual sets out minimum widths for single and double land roads, but not maximum widths. Double lane roads should be prohibited. They take up much more room and cause much more disturbance and timber and brush cutting. On longer access roads there should be occasional double lane sections long enough to allow equipment to pass each other. Sufficient planning and modern walkie talkies will make this very practicable for the driller.

8.2; 8.5.3 – The slope limitations here are very important. Even a casual observer of the various roads in Kanawha State Forest can see that steeper roads are eroding. They are harder to maintain, and maintenance does not happen. The author of these comments purchased a hand-held device to measure slopes. Roads in Kanawha State Forest with slopes greater than 10% do not maintain vegetation and are eroding.

The provisions of 8.5.3 are confusing. Is the intent to say that slopes up to 14% are allowed if they are necessary to do broad based dips? That would be a compromise to get in broad based dips that work better than water bars and culverts, and do not need maintenance. If so that should be clarified.

8.4 – “Daylighting” is to be “considered” in the DEP Office of Oil and Gas Erosion and Sediment control Field Manual. However, no amount of daylighting can cause a road to dry and be stable when it is being used during the drilling phase and it rains. Attached as DOC “Appendix to comment on 8.4” are pictures of Middle Ridge Road in Kanawha State Forest which has been daylighted in the past, while it is being reused by heavy equipment in the spring. There are no scientific studies that this

¹ “In areas of cut slope instability, frost heave slough, and erodible ditches, properly located and constructed surface cross drainage can result in less erosion and disturbance to the surrounding watershed than relying completely on insloped roadways with ditches and culverts. In these locations, the surface cross drains can also reduce the need for maintaining the roadway surface accompanied by its associated sediment pulse – by reducing ponding and erosion caused by concentrated surface flow. In summer, surface cross drains can provide effective cross drainage, while reducing the risk associated with plugged ditch relief culvert inlets, which can divert water over the road in unplanned or undesirable locations.” See “Water/RoadInteraction: Introduction to Surface Cross Drains, USDA Forest Service, Technology & Development Program,” Page 1, September 1998 9877 1806–SDTDC; <http://www.stream.fs.fed.us/water-road/w-r-pdf/crossdrains.pdf>.”

commenter can find that show the benefit of daylighting during other phases of road use. One hydrogeologist consulted by this commenter say that it only might make a difference on a south facing slope in the summer during light traffic. What really counts are proper road design, construction and maintenance. No amount of daylighting can remedy failures of those stages of road development and use.

8.5.4 – There are areas in Kanawha State Forest, as one example, where there are constant wet puddles on roads that ride ridges. It is good that a solution to this problem is proposed.

8.5.5.d – The preference of most Forest users is construction of a road that makes minimum changes. This generally means no graveling. In particular, limestone gravel changes the pH of surrounding soil. We are willing to tolerate muddy roads cared for with proper construction and with maintenance techniques such as sediment barriers etc. during the drilling phase in order to avoid graveling. See the photograph attached as “Appendix to comment on 8.5.5.d” as a way to use straw bales and silt fencing instead of gravel during the heavy use drilling phase. This should be done for roads that will thereafter be gated and not be used frequently enough after initial drilling to require gravel. So we are glad to see that the least permanent disruption will be required.

8.7 – This section of the rule requiring minimum clearing is important. Attached are two pictures of roads used recently for oil and gas drilling in Kanawha State Forest. See “Appendix to comment on 8.7” attached. The first was an older existing road that was reused. The second is a newly cut well site access road. The difference is striking. One appears to have minimized clearing and the other seems to have emphasized it.

8.8 – Broad based dips are always better than other Erosion and Sediment control structures on roads. They are particularly preferred because the maintenance of ditches and culverts is so poor in Kanawha State Forest.

10.5 – One of the huge disappointments for the Kanawha State Forest Coalition is that the Rule allows the planting of non-native seeds. The provisions of 10.5.2 are satisfactory. However, the provisions of 10.5.1 use non-native seeds. A study generally called “the Upper Elk Study”² done by the West Virginia University Division of Forestry and Natural Resources for the West Virginia state government Division of Forestry demonstrated that a native wildlife mix was only 10% less effective in sediment reduction

²FINAL REPORT to West Virginia Division of Forestry, State Headquarters, 1900 Kanawha Blvd., East, Charleston, WV 25305-0180, VIGOROUS ESTABLISHMENT OF NATIVE VEGETATION ON LANDINGS AND SKID ROADS IN THE UPPER ELK RIVER WATERSHED, October 26, 2006.

than a traditional mix. See Upper Elk Study attached as the Final Appendix, at Table 2 on Page 11.

Another commentator is submitting price lists that show that the native seed that is required is not that much more expensive, if at all, than other good quality seed mixtures. And since Mountain Top Removal mines are now required to use native seeds (though not the same seeds since they want to encourage tree growth), the general availability and price of these seeds will come down.

11.2 – The increased use of outsloping, broad based dips, reduced slopes etc. that are set out in the Rule will seriously reduce the need for maintenance.

11.4 – A huge complaint of this individual commenter is road maintenance. From observation of this commenter in Kanawha State Forest, when ruts develop in roads, or for reasons not apparent to the observer, the drillers will send a bulldozer out to do their form of maintenance – maintenance which is more destructive than helpful. One of the principal goals of reclaiming the road after the drilling phase is to have vegetation on the road during the remaining life of the well access road. Yet maintenance is done by taking a bulldozer scraping the road flat – including scraping off all of the vegetation! Attached as “Appendix to comment on 11.4” is an example of this form of maintenance. This is a repeated problem that must be stopped. When it is done, this commenter can observe siltation in the streams that run down from the road in Kanawha State Forest into Davis Creek – and into the pond.

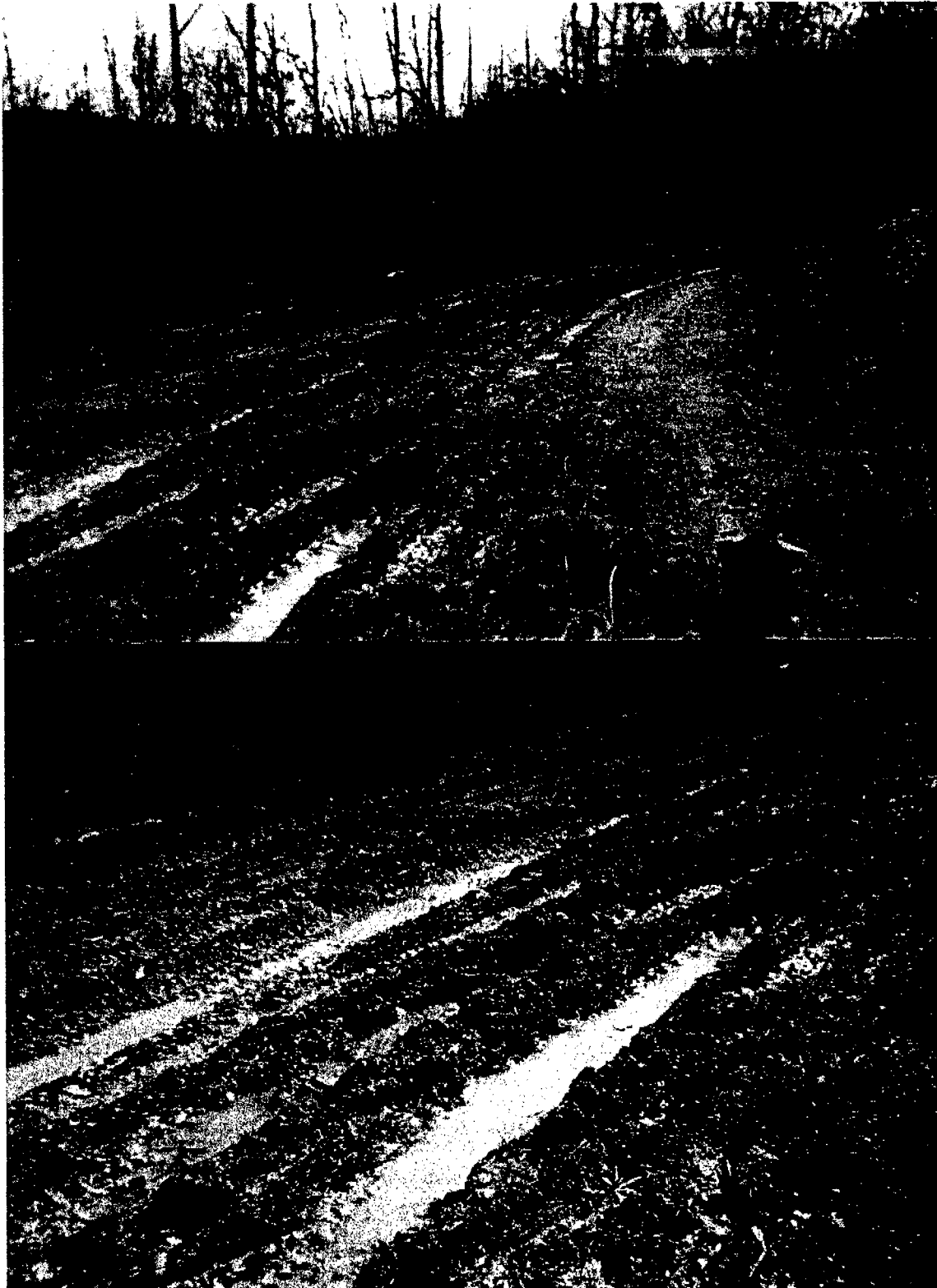
Appendices to these comments appear on the pages following this signature.

Sincerely,

David B. McMahon

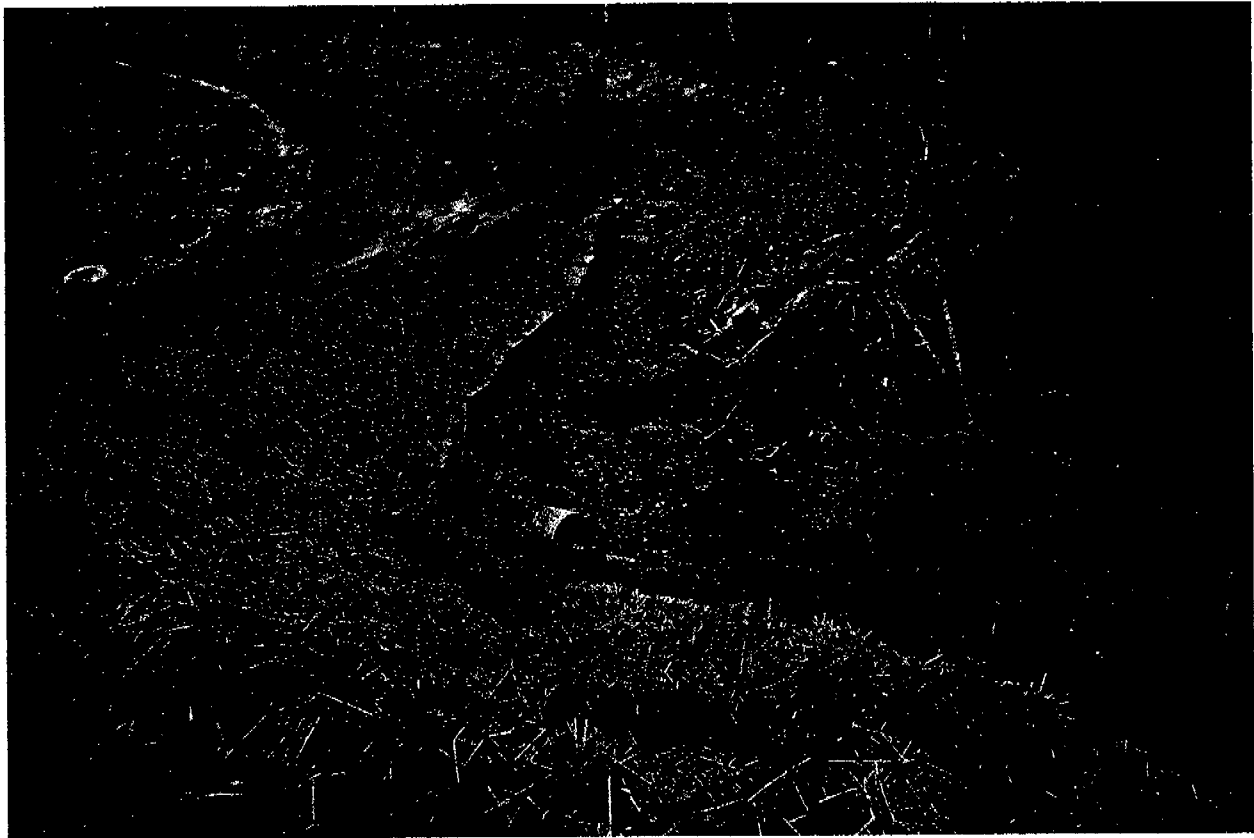
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Appendix to comment on 8.4



Appendix to comment on 8.5.5.d

Example of straw bales and siltfencing as an alternative to graveling of roads during well drilling phase of access road use.



Appendix to comment on 8.7

Page 1 of 2.

An older existing road that was refused
for a new gas well and reclaimed (but not with native vegetation).



Appendix to comment on 8.7
Page 2 of 2.

New road cut to new well on Wildcat Ridge.

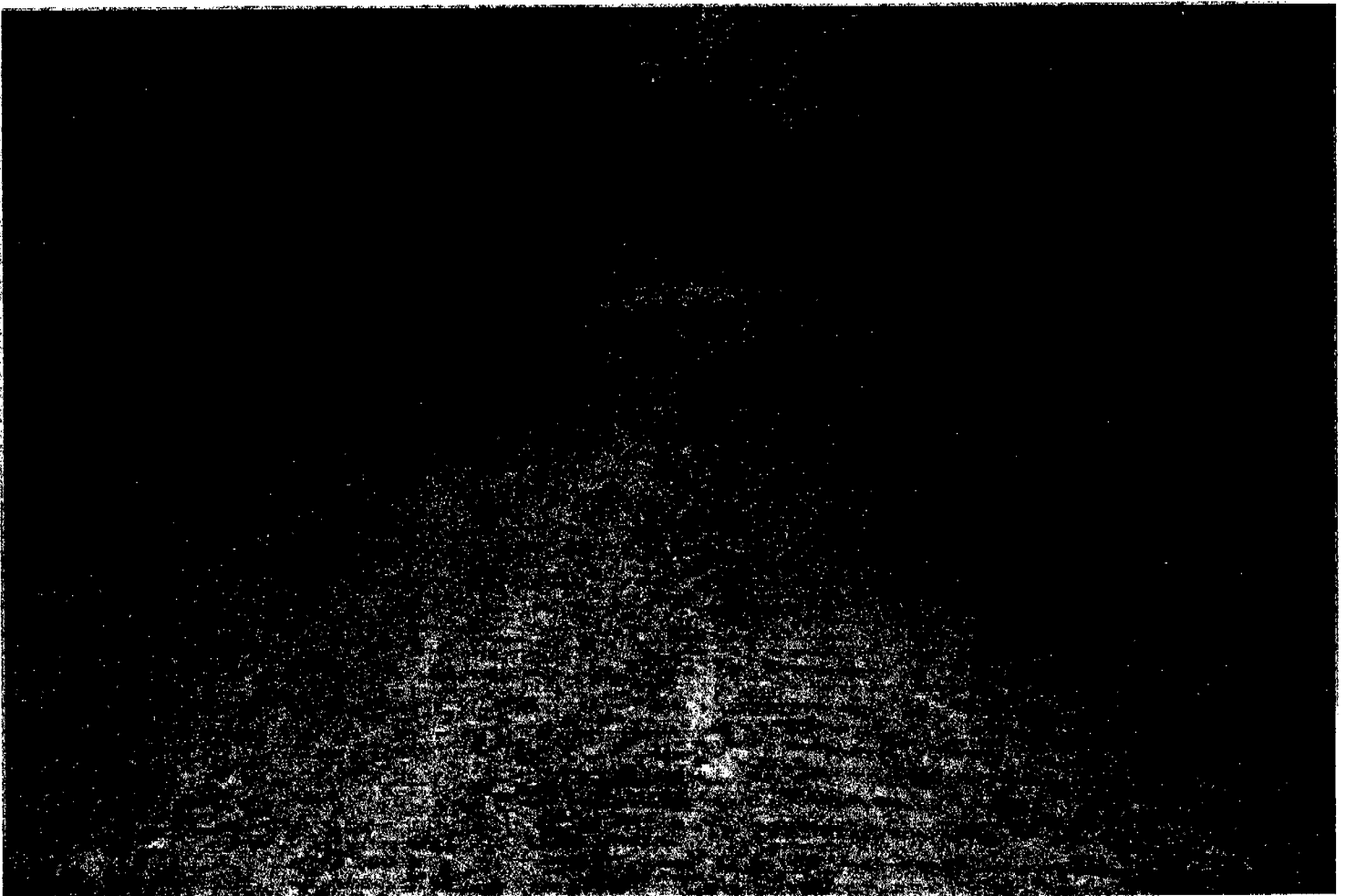


Appendix to comment on 11.4

“Maintenance” of a road in Kanawha State Forest by scraping flat with a bulldozer.

Note on the road in the distance the vegetation that has not yet been scraped off.

Note in the foreground on the right.



Final Appendix

[The “Upper Elk River” study of the use of native vegetation to reclaim roads
may be transmitted as a separate document or file.]

Final Appendix to McMahon's Comments
On Rule for Oil and Gas Access to State Forests

FINAL REPORT
to

**West Virginia Division of Forestry
State Headquarters
1900 Kanawha Blvd., East
Charleston, WV 25305-0180**

**VIGOROUS ESTABLISHMENT OF NATIVE VEGETATION ON LANDINGS AND
SKID ROADS IN THE UPPER ELK RIVER WATERSHED**

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26 October 2006

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Introduction and Background

The West Virginia forestry community has long known that controlling non-point source pollution from forest management activities is important. The West Virginia Division of Forestry published a set of Forest Practice Standards in 1972, which were the first of their kind in the eastern United States. After the Federal Water Pollution Control Act Amendments of 1972 (PL92-500), specifically section 208 of this law, the West Virginia forestry community was mandated to develop a Silvicultural Water Management Plan for West Virginia. An advisory committee, made up of individuals from the public and private sector, developed a Best Management Practice (BMP) manual in the late 1970's that was intended to reduce soil erosion due to forestry (Sherman 1985). In 1992, the West Virginia Legislature passed the Logging Sediment Control Act (LSCA). The LSCA mandated that loggers become licensed and certified, notify the West Virginia Division of Forestry of logging operations, and required that logging sites be reclaimed within seven days of the completion of operations.

Thus regulations, both mandatory and voluntary, have been enacted in West Virginia. Have they, however, reduced non-point source pollution due to forest management practices in West Virginia? Evaluations of BMP use in West Virginia were conducted in 1981, 1986, and 1990 when a more voluntary approach was used to address this issue. Although compliance with BMPs increased annually (from 59% to 75%), each evaluation found some weaknesses in loggers harvesting and reclamation procedures. These weaknesses were used to rewrite the BMP manuals so that the deficiencies could be addressed and to further direct education efforts in subsequent harvesting operations (Whipkey 1991). In 1995-1996 Egan and Rowe (1997) evaluated BMP use after the LSCA and found slight increases in compliance levels since Whipkey's study in 1991. Among the deficiencies reported by Egan and Rowe (1997) was the need for improvements in haul and skid road drainage practices (Egan and Rowe 1997). In 2004 Wang and Goff (2004) found similar BMP compliance in West Virginia.

Forest roads, skid trails, and landings are the primary source of non-point source pollution, or sedimentation, after logging operations in West Virginia (Egan et al. 1996, Kochenderfer et al. 1997). These sediments make their way to streams and can have a negative effect on vertebrate and non-vertebrate wildlife populations. Natural characteristics, such as depth, temperature and stream width, can also be affected by sedimentation. Because landings and forest roads are the largest potential source for sedimentation, it is natural for the forestry community to concentrate their research, education and outreach efforts in this area.

Erosion from skid trails and landings is often intensified by the compacted nature of the soils following timber harvest (Figure 1). Compacted soils in areas frequented by logging equipment results in a poor seedbed for the establishment of vegetation following harvest; Severe compaction may even persist for decades (Corns 1988). Usually, these areas are reclaimed by sowing seed in the divots created by dozer tracks. Although this process may lead to seedling establishment, germination is often delayed, and vegetation may develop in a "spotty" fashion (Figure 1). Further, seed mixtures used for reclamation are composed of non-native seeds dominated mainly by fescues. The establishment of native vegetation on skid roads and landings not only controls sedimentation, but it also provides nesting, feeding, and escape habitat for wildlife and promotes healthy, native plant diversity in watershed forests.

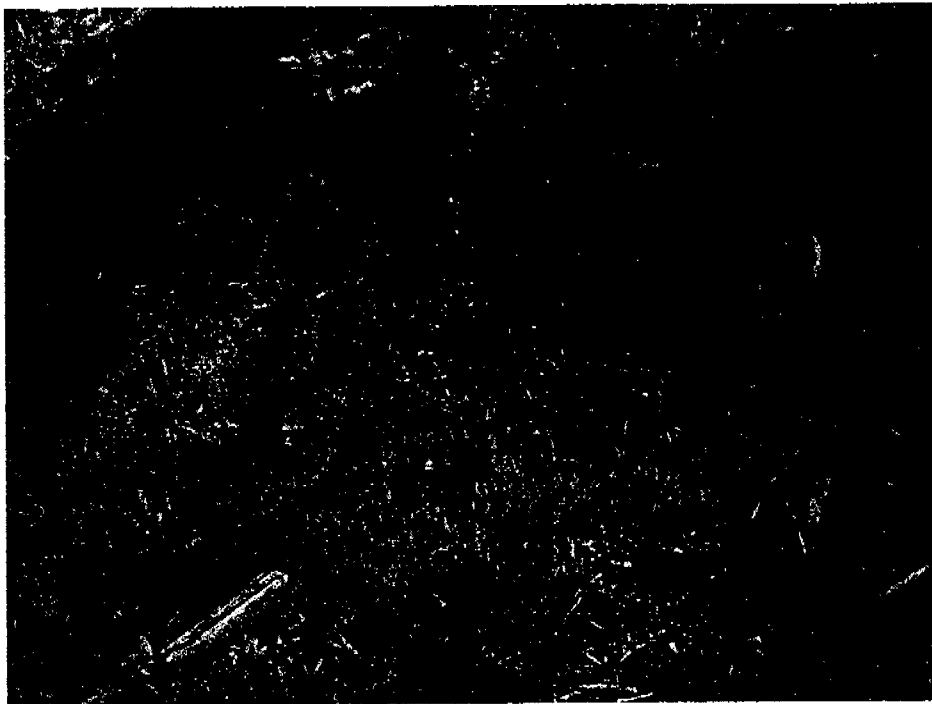


Figure 1. Soil compaction and spotty germination in dozer tracks.

Our research was conducted in the Upper Elk Watershed of the Elk River Watershed in West Virginia (Figure 2). The watershed is a high-quality coldwater system with 16 streams (23 kilometers) listed under the draft 303(d) list. The entire Elk watershed extends half the length of the state, originating in the Allegheny Mountains to the east and flowing west to meet the Kanawha River at Charleston, West Virginia. Private individuals own most of the land in the watershed; however, 26% is public land in the Monongahela National Forest. The Upper Elk watershed is 95% forested and supports some of the highest quality hardwoods in the United States.



Figure 2. Location of the Upper Elk Watershed in West Virginia.

Methods

Program Development and Wood Product Industry Involvement

We developed a program to recruit landowners in the Upper Elk Watershed for participation in this research project. Brochures were developed to describe the project and its objectives, and mailed out to landowners in the Upper Elk Watershed (Appendix A). Additionally, representatives from the Appalachian Hardwood Center visited several timber companies in the watershed to discuss the project and recruit them for participation. These were the first steps to identifying possible study areas within the watershed and to educate landowners on the project.

Development of Seed Mixtures

Our objective was to develop seed mixtures that in addition to meeting BMP requirements for sediment control, were also native and offered wildlife and aesthetic benefits. We developed 3 native seed mixtures for this project based on 3 specific enhancement criteria, and compared them to a fourth non-native mixture used currently by timber companies for reclamation (Table 1). First, we developed a stabilization mixture for use by timber companies. Its main purpose was to prevent erosion on landings, embankments, and skid trails. The second seed mixture was developed as a forage source for wildlife. Several private landowners have expressed an interest in converting landings and roads into forest openings that benefit wildlife on their property. The third mixture focused on wildflowers, and was developed for private landowners or for industry that may have a landing where they are looking for a nice esthetic. Both the wildlife and wildflower mixtures also contained the stabilization mix because the main purpose of this project was to prevent erosion from reclaimed areas. A fourth, non-native mix was also tested. This mix is the traditional mix used currently by timber companies in the watershed for reclamation.

Table 1 . Seed mixture composition and seeding rates. Mixtures were spread at a rate of 5.1 kg/hectare (25 lb/acre).

Mix	Common Name	Scientific Name	Rate	
			(kg/hectare)	Percent
Stabilization	Annual Winter Wheat	<i>Triticum aestivum</i> L.	2.0	40
	Deer Tongue Grass	<i>Panicum clandestinum</i> , Tioga	0.3	6
	Silky Wild Rye	<i>Elymus villosus</i>	1.2	24
	Creeping Red Fescue	<i>Festuca rubra</i>	1.5	30
Wildlife	Annual Winter Wheat	<i>Triticum aestivum</i> L.	0.5	10
	Deer Tongue Grass	<i>Panicum clandestinum</i> , Tioga	0.1	2
	Creeping Red Fescue	<i>Festuca rubra</i>	0.7	14
	Partridge Pea	<i>Chamaecrista fasciculata</i>	1.3	25
	White Clover	<i>Trifolium repens</i> , Ladino	2.5	49
	Rubus	<i>Rubus allegheniensis</i>	0.02	1
Wildflower	Annual Winter Wheat	<i>Triticum aestivum</i> L.	1.0	20
	Deer Tongue Grass	<i>Panicum clandestinum</i> , Tioga	0.2	3
	Silky Wild Rye	<i>Elymus villosus</i>	0.6	12
	Creeping Red Fescue	<i>Festuca rubra</i>	0.8	15
	Ox Eye Sunflower	<i>Helianthus helianthoides</i>	0.3	5
	Wild Blue Lupine	<i>Lupinus perennis</i>	0.5	10
	Black-eyed Susan	<i>Rudbeckia hirta</i>	1.1	21
	New England Aster	<i>Aster novae-angliae</i>	0.2	4
	Showy Tick Trefoil	<i>Desmodium canadense</i>	0.5	10
Traditional	Orchard Grass	<i>Dactylis glomerata</i> L.	*	*
	Rye Grain	<i>Secale cereale</i>		
	Birdsfoot Trefoil	<i>Lotus corniculatus</i> L.		
	Timothy Grass	<i>Phleum pratense</i>		
	Red Clover	<i>Trifolium pratense</i>		
	Perennial Ryegrass	<i>Lolium perenne</i> L.		
	Unknown Seed			

*Seeding rates and percentages are unknown for the traditional mixture.

Study Site Identification

Satellite imagery of the Upper Elk Watershed taken in 2003 was used to identify candidate landings and skid trails for this project (Figure 3). Foresters from the West Virginia Division of Forestry and local timber companies also provided assistance in locating possible sites and in making contacts with landowners. Extensive site visits were required to select study sites in both 2005 and 2006.

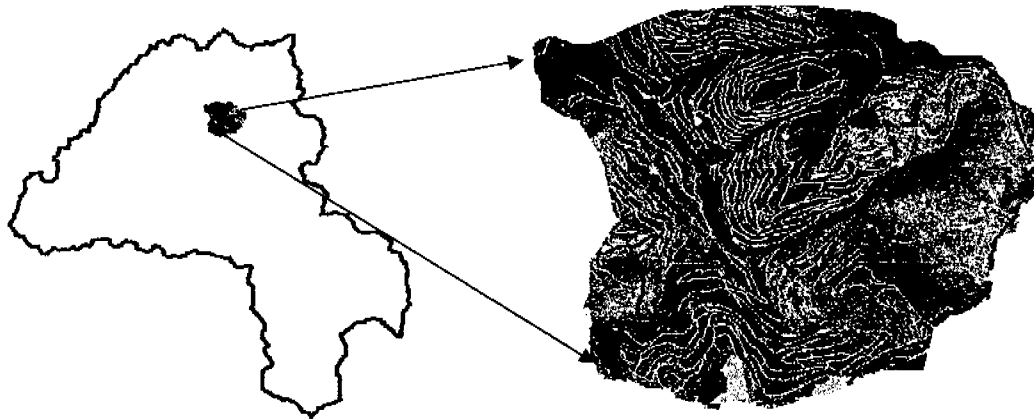


Figure 3. Digital imagery of the Upper Elk Watershed with skid trails and landings.

Landing Reclamation

Twelve landings were reclaimed during the spring of 2005 and twelve landings during the spring of 2006 for this project (Figure 4); two of the landings reclaimed in 2006 were sites that were unsuccessfully planted in 2005. Soil samples were taken from landings in 2005 and sent in for analysis to determine lime and fertilizer requirements for the watershed. Landing preparations included soil scarification using a modified ripper-tooth dozer-blade assembly (Figure 5) and plantings of native seed mixtures. The modified ripper-tooth dozer-blade assembly (Figure 5) was developed to turn up the soil on landings and create better seed to soil contact than is created by traditional dozer blade dragging of landings before planting. The assembly can be hydraulically fitted onto any dozer and requires no extra modifications to the dozer blade for use. Two ripper-assemblies are available for companies and landowners in the watershed. Landings were seeded and mulched by hand in 2005 using no additional fertilizer or lime. The scarified soil on landings was dragged using a harrow drag and ATV, and then rolled flat after planting using a lawn roller and ATV, for optimum seed to soil contact. All areas were reclaimed using a 4.5 kg/ha (25lb/acre) seeding rate and were mulched with straw to prevent non-native seed contamination. Silt fence was installed around landings to decrease potential erosion during scarification and reclamation (Appendix B).

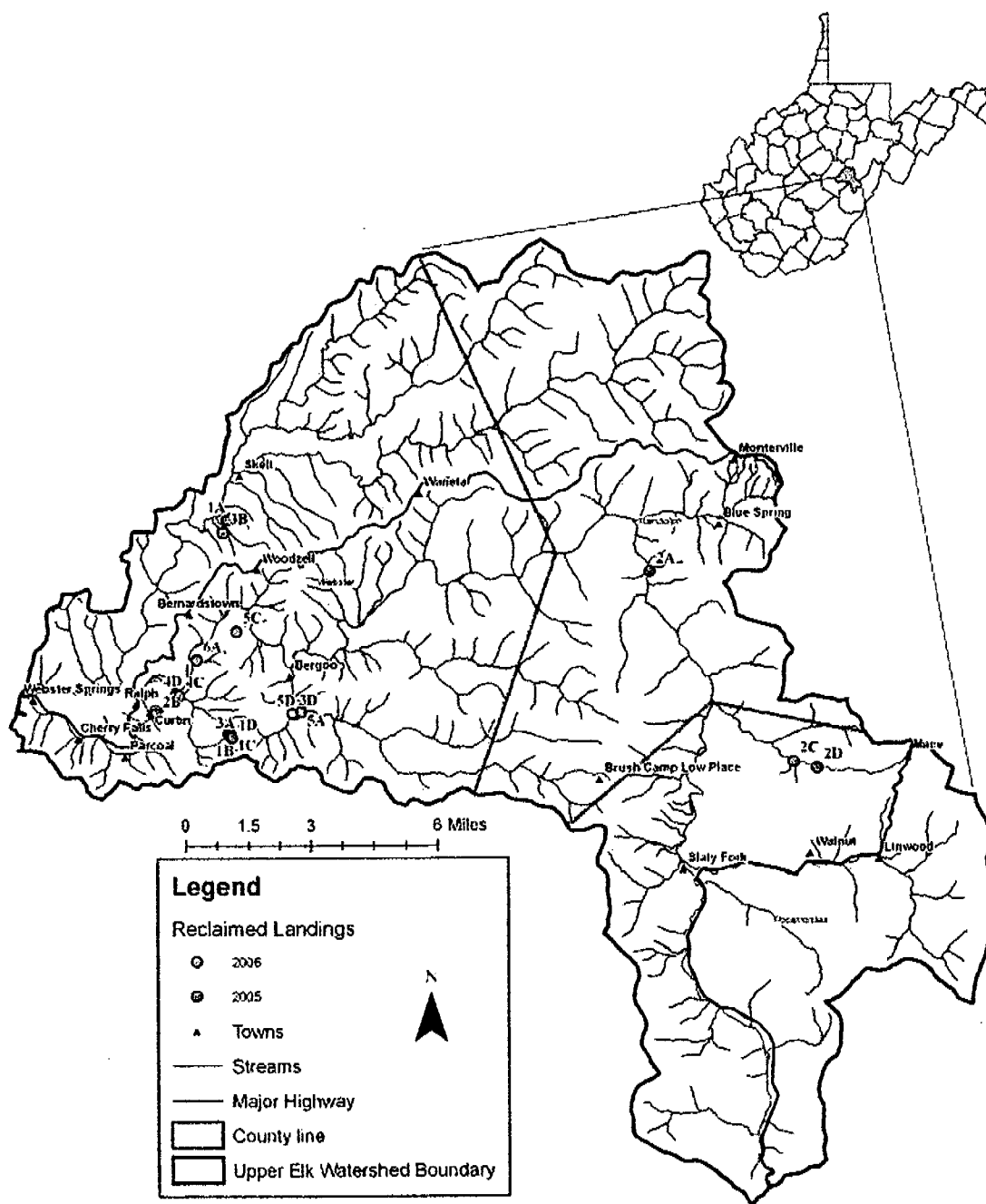


Figure 4. Reclaimed landings in 2005 and 2006 in the Upper Elk Watershed.



Figure 5. Modified ripper-tooth dozer-blaze assembly

In 2006, a hydroseeder was used to plant landings. Both fertilizer and lime were added to the seeding mixture to maximize planting success. Hydroseeding became the main method of planting in 2006 and resulted in the development of an affordable, easy to use 500-gallon hydroseeder (Figure 6) made possible through supplemental grant money provided by the Upper Elk Soil Conservation District. The hydroseeder was mounted onto a trailer that can be pulled behind a vehicle.

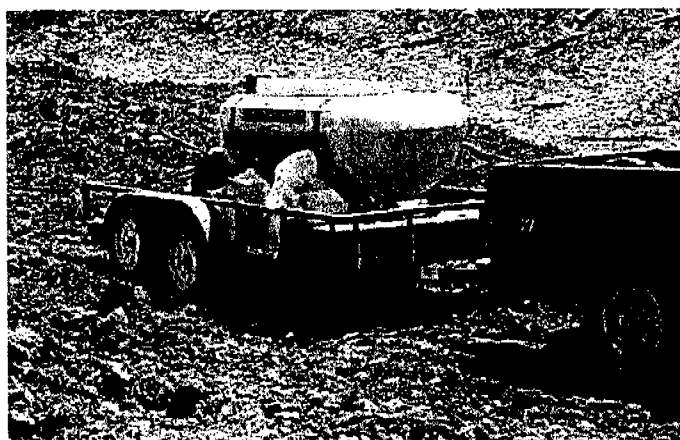


Figure 6. 500-gallon log landing hydroseeder mounted on a trailer to be pulled behind a truck.

To measure sediment eroding from log landings, a modified silt-fence method of collection was used (Robichaud and Brown 2002). This technique is simple, efficient once fences are installed, and inexpensive relative to other sediment collection techniques (Robichaud and Brown 2002). Sediment “wells” were constructed of silt fencing (Amoco geo-textile #2016, Austell, Georgia) on the greatest slope of each log landing. Fencing was installed in a 3.2M x 3.2M square to prevent outside sediment from running into the calculated area of the well (Appendix B). Once secured with wooden stakes, excess fencing at the bottom of the slope was folded towards the upslope (Appendix B). The edge of the fencing was secured using turf staples placed every 6 cm. This upturned area created a collection well from which to collect sediment. The collection well material area could be precisely calculated and represented a definitive boundary between the soil and collected sediment.

Soil movement was assessed by collecting sediment samples from landings during the summer of 2005 and 2006 on a bimonthly (every two weeks) basis using shovels, brooms, and hand brushes. Sediments were placed into an already weighed, plastic bucket and weighed on site. A small sub-sample was obtained from the homogenized sample and brought back to the laboratory for drying. Sub-samples were dried at 105 °C to a constant temperature (Robichaud and Brown 2002). Dry weight of the sediment was calculated for each sub-sample, which was then used to calculate the dry weight of each sample.

Seed Mixture Success

Vegetation was clipped in July and September 2005 and 2006 from 3, 1/3-m² plots on each landing. Samples were brought back to the lab and dried in a forced-air oven to a constant mass to test for biomass. During clipping, percent cover and height were measured in each 1/3-m² plot and an average was calculated for each landing.

Skid Trail Reclamation

All skid trails chosen for reclamation work were monitored during the summers of 2005 and 2006. Twelve, untreated skid trail sections (~ 10 meters in length) of equal grade were randomly selected and paired with a skid trail section of equal length and grade that received a fiber mat and native grass seed. Sediment traps were constructed with silt fence at the downslope ends of each skid trail section (Appendix C). Sediments were collected from silt traps three times during summer 2005 and bimonthly during summer 2006 following the same methods used to collect sediment on landings.

Hydroseeding skid trails was a logistic problem because commercially available hydroseeders were too large to use on most skid trails. As a result, a smaller 200-gallon hydroseeder (Figure 7) mounted on an ATV trailer was developed to be pulled behind a dozer using the supplemental funds provide by the Upper Elk Soil Conservation District. The skid trail and landing hydroseeders are now available to companies and landowners for use in the watershed.



Figure 7. Skid trail hydroseeder mounted on an ATV trailer to be pulled behind a dozer.

Road Embankment Reclamation

A combination of the stabilization mixture and wildlife mixture was given to a local logging operator to use in hydroseeding haul road embankments in 2006. Haul road embankments were monitored bimonthly (every two weeks) during the summer of 2006 for vegetation establishment and sediment movement. Ten sections of the same log road were monitored using the same methods as skid trail sediment collection (Figure 8). Four silt traps were randomly placed below embankments seeded with our wildlife mixture, 4 silt traps were randomly placed on embankments seeded with the traditional mixture, and 2 silt traps were randomly placed on embankments that were not seeded. All slopes on the log road were similar at well locations.



Figure 8. Silt fence trap on log road embankment planted with native seed mixture.

Wildlife Surveys and Forage Quality

Landings were monitored for small mammal use in June, August, and October 2005 and 2006 to determine how well seed mixtures created habitat for wildlife. Small animal use is a good indicator of overall habitat and forage quality of each mixture. Fourteen trapping stations were set on each landing with 1 ventilated Sherman live trap (Trap-LFAHD-P, H. B. Sherman Traps, Tallahassee, Florida) and 1 medium-sized Tomahawk live trap (#202, Tomahawk, Tomahawk Live Trap Company, Wisconsin). Traps were monitored for 4 nights on each landing during each month.

Samples from vegetation clippings were sent to the West Virginia University rumen analysis lab for forage quality testing. The samples were tested for % NDF, % ADF, and % Crude Protein. %NDF and %ADF are measures of indigestible a forage is to wildlife. Therefore, lower %ADF and %NDF values suggest higher quality forage for wildlife. Additionally, biomass measurements indicate the amount of forage being provided by each mixture.

Results

Seed Mixture Success

Biomass is an important measure of sediment stabilization and habitat structure. Biomass was highest (36.43 g/m²) on landings planted with the traditional mixture, followed by closely by the wildlife mixture (20.86 g/m²), wildflower mixture (9.50 g/m²), and stabilization mixture (8.00 g/m²) (Table 2). Percent cover is a measure of unexposed soil on the landings. Average percent cover was highest on landings planted with the traditional mixture (87.85 %), followed by the wildlife mixture (69.60 %), wildflower mixture (41.00 %), and stabilization mixture (33.57 %) (Table 2). Vegetation height is a measure of structure and growth. Average height was highest on the landings planted with the wildlife mixture (25.4 cm), followed by the traditional mixture (21.1 cm), stabilization mixture (18.1 cm), and wildflower mixture (11.5 cm) (Table 2).

Each mixture reduced different amounts of sediments. Soil was collected from 2 non-vegetated landings in 2005. Non-vegetated landings yielded 488.9 kg/ha of sediment. Sediment reductions were 85.74 % for the traditional mixture, 75.73 % for the wildlife mixture, 43.71 % for the stabilization mixture, and 27.59 % for the wildflower mixture (Table 2).

Table 2. Average biomass, % cover, height, and sediment collected for each mixture over the course of the study.

Mixture	Average Biomass(g/m ²)	Average % Cover	Average Height (cm)	Average Sediment Dry Weight (kg/m ²)	Average Total Sediment Dry Weight (kg/ha)	% Sediment Reduction
Non-vegetated	-	-	-	1.98	488.99	-
Traditional	36.4	87.9	21.1	0.28	28.23	85.74
Stabilization	8.0	33.6	18.1	0.87	86.53	43.71
Wildlife	20.9	69.6	25.4	0.48	48.05	75.73
Wildflower	9.5	41.0	11.5	1.43	143.35	27.59

Landing Sediments

Due to the destruction of sediment monitoring stations by vandals during the summer of 2006, only sediment data from landings collected during 2005 was used for sediment expansion calculations. An average of 197.97 kg/ha of sediments were collected from landings without vegetative growth (Table 3). On average, 62.4 kg/ha were collected from landings with vegetation (Table 4). These data suggest that a 68 % reduction in the amount of sediments moving on landings that were vegetated versus those without vegetation establishment.

Table 3. Sediments collected on landings without vegetation growth during summer 2005 in the Upper Elk River Watershed.

Site	Sediment Dry Weight (Grams/10 m ²)	Total Sediment (kg/ha)
1A	30.2	324.9
2D	6.6	71.0
Mean	18.4	197.9
StDev	16.7	237.2

Table 4. Sediments collected on landings with native vegetation establishment during the summer of 2005 in the Upper Elk River Watershed.

Site	Sediment Dry Weight (Grams/10 m ²)	Total Sediment (kg/ha)
1B	0	0
1C	0	0
2A	15.6	167.8
2C	6.4	67.8
3C	7.1	76.4
Mean	5.8	62.4
StDev	6.4	69.2

Skid Trail Sediments

Road sections with no fiber mulch or seeding averaged 1722.7 kg/ha in 2005 and 6557.2 kg/ha in 2006 compared to those with fiber mulch and seeding averaged 344.0 kg/ha in 2005 and 603.5 kg/ha in 2006. Vegetation averaged 17.5 cm in height in 2005 and 24.25 cm in 2006 on fiber mulch treated road sections; no vegetation was observed on sections without fiber mulch during the study period (Table 5). The planting of native vegetation and use of fiber mats accounted for an 80% reduction in the amount of sediments moving from skid trails in 2005 and 92% in 2006 in the Upper Elk River watershed.

Table 5. Sediments collected on skid trails planted with native vegetation and covered with fiber mats and skid trails without reclamation during the summer of 2005 in the Upper Elk River Watershed.

Skid Trail				Sediment Collected	Sediment Collected
Section	Treatment	Area (m ²)	Area (acres)	(Grams/ m ²)	(kg/ha)
2005					
1 Ref		23.6	.015	2633	1103.8
3 Ref		25.7	.015	140	53.8
5 Ref		19.5	.012	2338	1186.4
7 Ref		9.9	.005	2590	2591.5
9 Ref		26.1	.017	6155	2332.6
11 Ref		52.7	.032	16356	3068.3
Average		26.2		5035.3	1722.7
StDev		14.3		5872	1130.8
2 Planted		50.1	.032	696	137.2
4 Planted		29.8	.017	148	49.1
6 Planted		18.5	.012	531	283.6
8 Planted		15.4	.009	961	615.0
10 Planted		35.2	.022	1135	318.8
12 Planted		24.1	.015	1614	660.3
Average		28.9		847.5	344.0
StDev		12.7		509	248.0
2006					
1 Ref				1017.00	418.7
3 Ref				0.00	0
5 Ref				3284.00	1622.3
7 Ref				13761.00	16994.8
9 Ref				20661.00	7290.4
11 Ref				68511.00	13017.1
Average				17872.33	65572.1
StDev				26097.11	715.9
2 Planted				250.00	47.5
4 Planted				25.00	8.8
6 Planted				244.00	120.5
8 Planted				1945.00	1201.0
10 Planted				3381.00	927.9
12 Planted				3196.00	1315.7
Average				1506.83	603.6
StDev				1544.54	610.9

Road Embankment Sediments

Embankments with no vegetation averaged 4687.8 kg/ha, those with traditional vegetation averaged 1914.4 kg/ha, and those with native vegetation averaged 1976.9 kg/ha (Table 6). Vegetation averaged 24.75 cm in height on embankment sections seeded with the traditional mixture and 17.5 cm in height on embankment sections seeded with the native mixture. The use

of the traditional mixture accounted for a 59% reduction in sediments and the native mixture accounted for 58% reduction in sediments moving from log road embankments in the Upper Elk Watershed.

Table 6. Sediments collected on log road embankments planted with a native seed mixture, planted with the traditional mixture, and left with no vegetation during the summer of 2006 in the Upper Elk River Watershed.

Embankment Section	Treatment	Area (m ²)	Area (acres)	Sediment Collected (kg/m ²)	Sediment Collected (kg/ha)
	1N None	8.65	.025	2.79	3455.5
	2N None	17.42	.012	11.99	5924.0
	Average	13.03		7.39	4689.8
	StDev	6.20		6.50	1745.5
	1B Traditional	13.45	.007	0.17	143.3
	2B Traditional	12.37	.007	0.23	195.9
	3B Traditional	10.09	.005	2.89	3580.3
	4B Traditional	11.29	.007	4.54	3737.9
	Average	11.80		1.96	1914.4
	StDev	1.44		2.13	2015.8
	1C Native	14.41	.009	1.76	1091.7
	2C Native	8.17	.005	4.39	5425.4
	3C Native	12.13	.007	0.48	397.7
	4C Native	10.69	.005	0.80	992.9
	Average	11.35		1.86	1976.9
	StDev	2.62		1.77	2319.3

Watershed Level Sediment Reductions

To estimate the effect of seeding all landings and skid trails in the study area using the described methods, the approximate areas of recent skid trails and landings in the Upper Elk River watershed were calculated. Methods described in Petty et al. (2005) were used to approximate these areas (Table 7). Harvested acreage in the watershed has increased since the watershed harvest area was approximated, most likely making our sedimentation calculations lower than what is most current.

Table 7. Forestry related land-use statistics estimated from digitizing all visible timber harvests using the WV Statewide Addressing and Mapping Board imagery set. The imagery was captured during "leaf-off" at a negative scale of 1 inch = 240 feet' in the spring of 2003, which produced natural color digital orthophotos at a 2 foot pixel resolution. The ortho-rectification process has achieved < 9.8 feet. horizontal error at a 95% confidence level. The TIFF files used are 10,000 feet X 10,000 feet uncompressed 24-bit natural color at a pixel resolution of 2.0 feet.

Total Hectares	Harvested Hectares	Landing Hectares	Skid Trail Hectares
380773.5	157310.0	482.6	13190.3

If all recent landings (<5 years of age) were vegetated using native seed mixtures, an estimated 11.8 ton reduction in sediments from landings during the growing season could be expected (0.1 tons/day reduction) (Table 8).

Table 8. Sediment reductions from landings estimated for the Upper Elk River watershed.

	<u>Tons</u>	<u>Tons/Day</u>
Total		
Sediments	17.26	0.14
Reduction	11.82	0.10
Remaining	5.44	0.04

If all recent skid trails (<5 years of age) were vegetated using native seed mixtures and fiber mats, a total of 3285.8 tons of sediments, based on 2005 data (Table 9), would not move from skid trails during the growing season (26.7 tons/day reduction), and 14188.9 tons (107.5 tons/day reduction) of sediments based on 2006 data (Table 10). This is assuming that all skid trails averaged at least 15% grade – thus these estimates are likely inflated.

Table 9. Sediment reductions from skid trails estimated for the Upper Elk River watershed in 2005.

2005	<u>Tons</u>	<u>Tons/Day</u>
Total		
Sediments	4105.65	33.38
Reduction	3285.75	26.71
Remaining	819.90	6.67

Table 10. Sediment reductions from skid trails estimate for the Upper Elk River watershed in 2006.

2006	<u>Tons</u>	<u>Tons/Day</u>
Total		
Sediments	15627.32	118.39
Reduction	14188.86	107.49
Remaining	1438.47	10.90

Wildlife Surveys and Forage Quality

Species caught most often in traps included the white-footed deermouse (*Peromyscus leucopus*), North American deermouse (*Peromyscus maniculatus*), Eastern chipmunk (*Tamias striatus*), Virginia opossum (*Didelphis virginia*), Allegheny woodrat (*Neotoma magister*), Southern red-backed vole (*Clethrionomys gapperi*), woodland vole (*Microtus pinetorum*), and Northern short-tailed shrew (*Blarina brevicauda*). Animal abundances were highest on landings planted with the stabilization mixture and wildlife mixture, and lowest on landings planted with the wildflower and traditional mixture. Animal diversity was highest on landings planted with the wildlife mixture, followed by the stabilization mixture, traditional mixture, and then the wildlife mixture (Table 11). These numbers relate closely to the amount of biomass grown by each seed mixture (Table 12). In general, mixtures that grew higher amounts of biomass had relatively higher animal abundances and diversity.

Table 11. Small mammal relative abundance and diversity (richness) found on landings with each of the mixtures.

	Small Animal Relative Abundance	Small Animal Species Diversity
Stabilization	6.0	3.5
Wildlife	4.5	4.0
Traditional	3.0	3.0
Wildflower	3.0	2.0

% NDF and % ADF should be low, whereas % Crude Protein and Biomass should be high. Crude protein was highest for the traditional mixture (13.50 %), and lowest in the stabilization mixture (7.22 %). % NDF was lowest in the wildlife mixture (41.78 %), and highest in the stabilization mixture (53.71 %). % ADF was lowest in the wildlife mixture (29.23 %), and highest in the wildflower mixture (37.27 %) (Table 12). Looking at the combined data for trapping and forage quality, the wildlife mixture is the best mixture for wildlife habitat and forage.

Table 12. Forage quality of mixtures.

	% NDF	% ADF	% Crude Protein	Biomass (g/m ²)
Stabilization	53.71	35.99	7.22	36.43
Traditional	46.57	32.53	13.50	8.00
Wildlife	41.78	29.23	11.02	20.86
Wildflower	47.95	37.27	9.22	9.50

Management Implications

Exposed soils following harvesting operations represent the main potential for erosion. If vegetation is not established quickly, erosion of these exposed surfaces is likely until natural herbaceous and woody vegetation becomes established. Creating a proper seedbed for quick vegetation establishment is important, and current methods can be revised to work more efficiently. The establishment of vegetation on skid roads appears to be the most critical when it comes to sediment movements. After harvesting in West Virginia, skid roads and trails represent approximately 10 percent of the total harvest area. Therefore, vigorous establishment of vegetation on skid roads should be of top priority when timber harvesting sites are reclaimed.

Using native seed mixtures for reclamation is an important consideration for the future. Forest openings created by timber harvesting can be transformed into a valuable resource for native wildlife. Thus, minimizing sediments by using planted native mixtures can provide broad benefits to overall forest ecosystem. Sediment control using native vegetation is equal, and sometimes less than, that of traditional seeding mixtures. However, native vegetation provides better quality forage and habitat to wildlife while also maintaining native, forest biodiversity. Further experimentation with native seed mixtures may yield an option that provides equal, if not better, sediment control than the traditional mixture, while also improving for forest wildlife and biodiversity.

Most research has shown that sediment levels return to pre-harvest levels within three years of harvest. Reductions of the magnitude found indicate that the use of fiber mats and proper re-vegetation of skid roads after harvest has good potential for limiting sediment movement after timber harvest. It has been found that forest litter and vegetation strips reduce the amount of sediments that actually make it into a stream system. Therefore, one cannot assume that the reductions documented would mirror those found at streamside. However, keeping sediment from moving from the road systems limits the amount buffered by litter and vegetation surrounding the stream corridor, thus adding to their protective qualities.

Outreach

A major objective of this project was to educate landowners in the watershed on the project, as well as provide them with resources and tools to perform many of the same practices that were researched. This was done in several ways. First, seed mixes were distributed to local landowners. Approximately 20 hectares (48 acres) worth of seed was distributed to be used in log landing, skid trail, and road embankment reclamation. A ripper-tooth assembly for plowing landings was developed, as was a log landing and skid trail hydroseeder. All of these tools are now available to landowners for use in the watershed.

To educate and demonstrate the use of the tools and inform stakeholders of their availability, a workshop was hosted on September 26, 2006. Forty-eight people (Figure 9) participated in the workshop including WVU researchers, Forest Industry representatives, WV Division of Forestry personnel, consulting foresters, and landowners. Tours were given of several landings and a demonstration of our log-landing vegetation method which included ripping the landing with the ripper-tooth assembly, smoothing the ripped area with the dozer blade, and hydroseeding the newly exposed soil was given.



Figure 9. Photos from the landing and skid trail reclamation demonstration held on September 26, 2006 near Webster Springs, WV.

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Appendix A: Brochure developed by the Appalachian Hardwood Center to recruit landowners for the project.

**WVU
Appalachian
Hardwood Center**

The AHC plays a significant role in fostering sustainable natural resource based economic and community development by promoting and encouraging communication and partnerships among appropriate stakeholders, by conducting basic and applied research, and by providing unbiased and scientifically-based technical knowledge, information, and educational programs.



Picture of forest played on a reforestation project in the AHC of the WVU Appalachian Center



Map of the Upper Elk River Watershed in West Virginia, Raleigh and Putnam Counties, WV




**West Virginia University,
Appalachian Hardwood Center**

PO Box 6125
Martinsburg, WV 26054-6125
http://www.ahc.wvu.edu
Phone: 800-253-2541 ext. 2545
Fax: 304-256-7573
E-mail: ajc@wvu.edu

**West Virginia
University,
Appalachian
Hardwood Center**



**Upper Elk
Watershed Log
Landing
Vegetation
Project**



Appalachian Hardwood Center

**Wanted: log landings
and skid trails with
little vegetation!**

The Appalachian Hardwood Center at West Virginia University has initiated a cooperative project with the West Virginia State Division of Forestry and the West Virginia Department of State.



Log landing with skid trails in the Upper Elk River watershed.

Technical Project using Clean Water Act 319 Funds. The objective of this project is to develop new landing and skid trail reforestation techniques in the Upper Elk River watershed. We plan to create optimal landings in the Upper Elk River area. These areas will then be seeded with native native and non-native seed and new vegetation that provide soil stabilization as well as benefit to northern water quality and wildlife.

The main goal of this project is to reduce sedimentation into the Elk River through vegetation establishment.

Landings and skid trails with vegetation are essential to the project. We are looking for you.

What are the requirements?

If you agree to participate, the Appalachian Hardwood Center will reclaim for landings and skid trails on your property. Sites will be reclaimed using a cell project over a minimum of 100 ft. by 100 ft. Area will then be seeded with native and non-native seed and tree species. All cell areas will be planted with a mix of native and non-native seed and tree species. Our staff will monitor vegetation growth, water input and output, and wildlife use. The majority of the reforestation will occur during the early spring through early summer of 2005. Monitoring will last through the summer of 2006.



Reclaimed skid trail and landing area that will be used to prepare seedbeds for log landings and skid trails.

How do I become involved?

If you are a landowner in the Upper Elk River watershed, please contact Dave McGoff, Director of the Appalachian Hardwood Center. More information can also be obtained from the WV Division of Forestry Offices in Wetzel Springs.

Who do I contact?

If you would like to become involved in this effort, please contact Dave McGoff, Director of the Appalachian Hardwood Center. More information can also be obtained from the WV Division of Forestry Offices in Wetzel Springs.

Shawn Grubbs
(304) 253-2541 ext. 2545

Dave McGoff
(304) 253-2541 ext. 2545

Shawn Grubbs
(304) 253-2541 ext. 2545

Dave McGoff
(304) 253-2541 ext. 2545

Dave Lilly
(304) 253-2541 ext. 2545

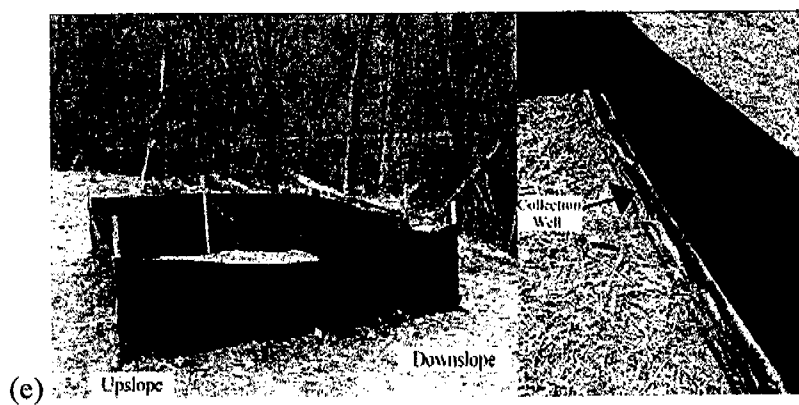
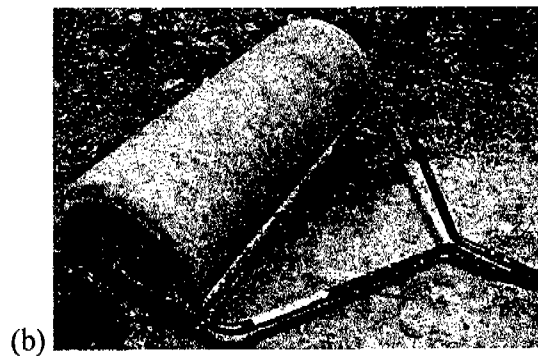


Appalachian Hardwood Center

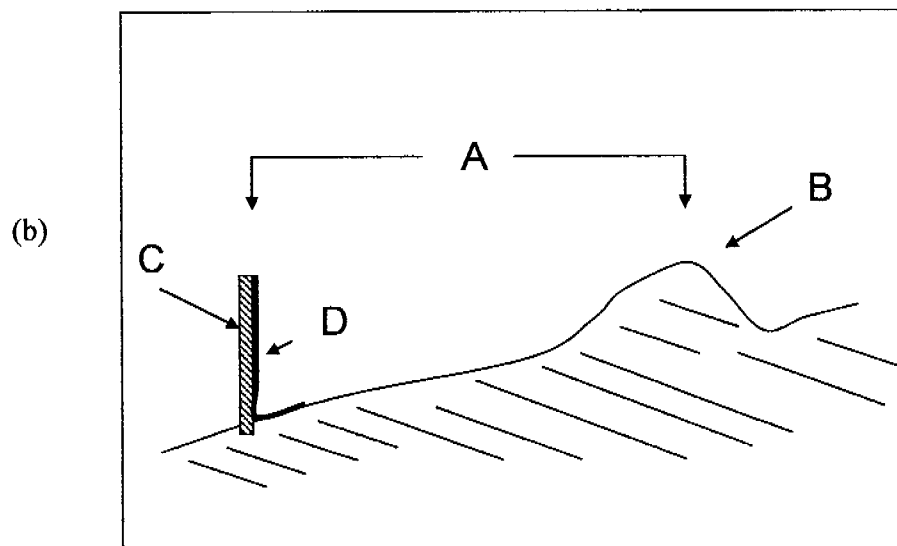
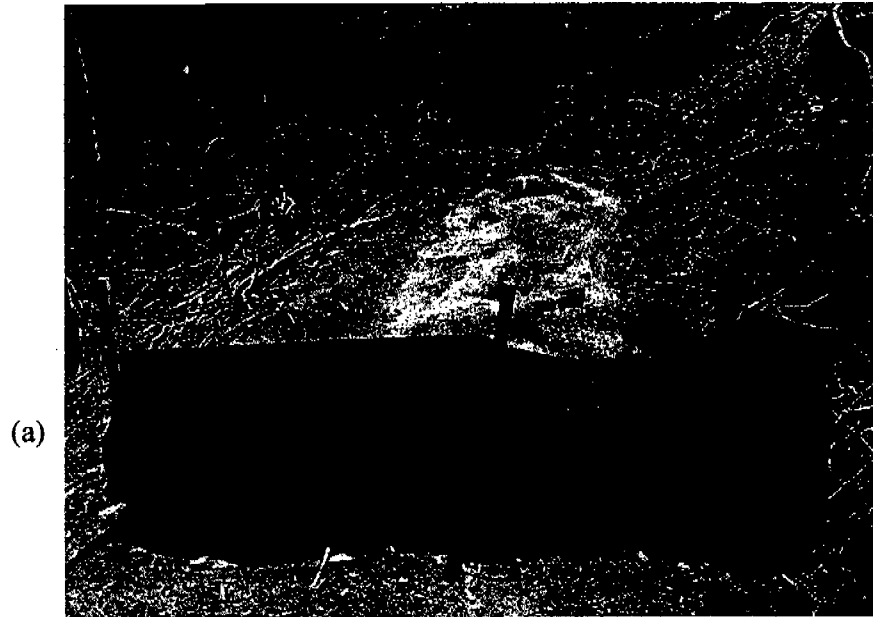
West Virginia University,
Appalachian Hardwood Center

PO Box 6125
Martinsburg, WV 26054-6125
http://www.ahc.wvu.edu
Phone: 800-253-2541 ext. 2545
Fax: 304-256-7573
E-mail: ajc@wvu.edu

Appendix B: Log landing reclamation methods: (a) harrow drag, (b) lawn roller, (c) silt fence installation, (d) finished landing, (e) silt fence collection well setup.



Appendix C: Skid trail reclamation and sediment collection: (a) silt fence well on skid trail and (b) silt fence well set-up. Drawing includes catchment area (A), water bar (B), silt fence stake (C), and silt fence (D) with silt trap at base.



TO: Bob B
w/other
Comments. MJP/Kuc
7/26/07

Carolyn Barker
Rt. 10 Box 95-B
Charleston, WV 25312

July 26, 2007

Kenneth K. Caplinger
Acting Chief, Parks and Recreation Section
Division of Natural Resources
Building 3 Room 714 Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25302-0662

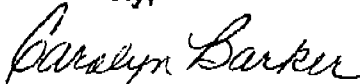
Dear Mr. Caplinger,

I want to convey my thanks and support of all the positive new requirements that the Department of Natural Resources has in the recent rules for gas and oil drilling issues in our state forests. I am concerned however about the abuses of our wonderful state forests by these companies because I take great pride in the beauty and diverse flora and fauna found in our forests. I look forward to being able to share with my grandchildren the wonders of our beautiful and extraordinary state forests. This is why I would like to see the gas and oil companies be required to re-vegetate all disturbed areas with native plants, and to definitely require an inventory of all plants and animals prior to future construction of any well site or new access roads in our forests.

What a travesty to go to an area that once had rare plants blooming, to find it plowed under with a gas or oil well access road, or find that it is now the new site of an oil or gas well. Not to mention the effects of these new roads on the surrounding areas due to drainage issues, and felled trees.

Our forests and parks are gems, diamonds. If we keep allowing others, under the guise of productivity to chip away at these jewels without accountability, soon we will be left with nothing that could even remotely be call extraordinary or beautiful.

Sincerely,


Carolyn Barker

Bob Beanblossom

From: West Virginia State Parks
Sent: Thursday, July 26, 2007 8:53 AM
To: Ken Caplinger
Subject: FW: DNR State Forest Drilling Rules

From: DianaMullis@aol.com [mailto:DianaMullis@aol.com]
Sent: Wed 7/25/2007 5:31 PM
To: West Virginia State Parks
Subject: DNR State Forest Drilling Rules

The new rule proposed by the WV Department of Natural Resources greatly improves the protections that all State Forests will receive. I support all of the new requirements that the Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road.

I appreciate all the work the the DNR has put into this.

Diana Mullis
2034 Persimmon Lane
Shepherdstown, WV 25443

Get a sneak peek of the all-new AOL.com.

Bob Beanblossom

From: West Virginia State Parks
Sent: Thursday, July 26, 2007 8:54 AM
To: Ken Caplinger
Subject: FW: Forest Drilling Rules

From: HIKINGWV@aol.com [mailto:HIKINGWV@aol.com]
Sent: Wed 7/25/2007 5:31 PM
To: West Virginia State Parks
Subject: Forest Drilling Rules

Mr. Caplinger,

I am writing to express my support for the proposed rules concerning drilling in our state forests. My family and I frequently visit Kanawha State Forest and were aghast at the damage caused in Dunlap Hollow. I believe it was unintentional and I appreciate the efforts made by Equitable Contractors to rectify the situation. Please support any rules that protect our beautiful natural areas from future damages.

Sincerely,
Tim Priestley
(304) 768-0570
(304) 389-9172
hikingwv@aol.com

Get a sneak peek of the all-new AOL.com.

Bob Beanblossom

From: West Virginia State Parks
Sent: Thursday, July 26, 2007 8:54 AM
To: Ken Caplinger
Subject: FW: drilling in state forest

From: Sen Jon Hunter [mailto:senhunter@mountain.net]
Sent: Wed 7/25/2007 4:46 PM
To: West Virginia State Parks
Subject: drilling in state forest

I am in agreement with the proposed rules but would like to see a more complete inventory of plants and animals.
Senator Jon Blair Hunter

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 4:43 PM
To: Ken Caplinger
Subject: FW: Gas Roads in State Forests

From: Midridge@aol.com [mailto:Midridge@aol.com]
Sent: Wed 7/25/2007 4:28 PM
To: West Virginia State Parks
Subject: Gas Roads in State Forests

Dear Sir or Madam,

I am writing in support of the new rules concerning the development of gas production in State forests. While I think there needs to be a careful balance between mineral right owners ability to realize the value of their property and the protection of natural assets for the use and enjoyment of the public, I am concerned about the abuses of oil and gas drillers in State Forests and support the new rules as proposed. In addition, I hope that all replanting can be done with native plants, as this is in keeping with current thinking on how to have a balanced sustainable environment.

Thank you for your consideration,

Nelle Chilton
Rt. 2 Box 329
Charleston WV
25314

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7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 4:43 PM
To: Ken Caplinger
Subject: FW: concerns ksf

From: rboyd@mail.wvstateu.edu [mailto:rboyd@mail.wvstateu.edu]
Sent: Wed 7/25/2007 3:21 PM
To: West Virginia State Parks
Subject: concerns ksf

I'm very concerned about oil/gas well drilling at Kanawha State Forest. It is so wonderful to have this state forest so close to our capital city. It's one of the greatest things about living here! My children and I ride bikes, trail run and hike the KSF trails on a regular basis. I was saddened to see the destruction of the Wildcat Ridge Trail due to an error by the gas well companies. Please protect our forest. Thanks, Robin
Boyd

Visit West Virginia State University online at
<http://www.wvstateu.edu>

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:52 PM
To: Ken Caplinger
Subject: FW: oil and gas

From: Sandy Fisher [mailto:andasay@gmail.com]
Sent: Wed 7/25/2007 9:07 AM
To: West Virginia State Parks
Subject: oil and gas

I want the rule to stop oil and gas drilling in the forests. Sandy Fisher tel 345-5383.

--

new email address:
andasay@gmail.com

7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:52 PM
To: Ken Caplinger
Subject: FW: Kanawha State Forest Propossal

From: E. C. Armbrecht, Jr. [mailto:ecajr@suddenlink.net]
Sent: Wed 7/25/2007 9:15 AM
To: West Virginia State Parks
Cc: WVEC - Don Alexander
Subject: Kanawha State Forest Propossal

Dear Mr Caplinger,

As you see, I am supporting the position stated by the WVEC. I do so for all the reasons mentioned. I also would like to add that I am a frequent serious hiker in this wonderful local asset. For industry to uncaringly screw it up is unfortunately typical, in my opinion, of the attitude of some of our extractors. If I could add a requirement it would be that the company be directed to provide volunteer trail maintenance hours of their employees including the top management. It would be penance but it would also create converts to future protection because all who hike in this forest come away awed. Have you been there?

"I am concerned about the abuses of oil and gas drillers in State Forests. The rule greatly improves the protections that Kanawha State Forest and all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road."

Sincerely,

Ted Armbrecht

Edward C. Armbrecht, Jr.
Box 1933
Charleston, WV 25327
304-344-0797; fax: 4927
ecajr@suddenlink.net

7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:52 PM
To: Ken Caplinger
Subject: FW: drilling in state forest

From: JSteven001@aol.com [mailto:JSteven001@aol.com]
Sent: Wed 7/25/2007 9:58 AM
To: West Virginia State Parks
Subject: drilling in state forest

Dear Chief Caplinger,

I am a frequent user of Kanawha State Forest (I was there 4 days last week to walk, bike ride, and look for orchids) and was upset when I learned a good size area was spoiled by a gas company building a road in the wrong place. I know DNR was also concerned because you came up with an excellent set of standards for the drillers to follow. I support all of the new requirements that DNR has in the rule, but would like to add, that native plants should be used in the revegetation. I am working with the Carriage Trail Committee in Charleston and know those 11 acres are going to be difficult to restore because invasive plants have taking over.

Joan Steven
6 Fern Road
Charleston WV 25314

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Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:49 PM
To: Ken Caplinger
Subject: FW: State Forest Rules

From: Norm Steenstra [mailto:norm@wvcag.org]
Sent: Wed 7/25/2007 12:05 PM
To: West Virginia State Parks
Cc: Martinjul@aol.com; 'Gary Zuckett'; 'David McMahon'
Subject: State Forest Rules

Dear Chief Caplinger,

On at least 3 occasions the West Virginia State Legislature enacted laws that in essence declared that the Kanawha State Forest was to be considered and treated as a special place. The foresight and wisdom displayed by our legislature in mandating a total ban on commercial logging underscores this point. The ban enabled the largest example of a potential old growth forest located within a hundred miles of our capital city. Regulation of other disruptive activities such as oil and gas drilling merit that same respect.

The legislated "specialness" of the Kanawha State Forest more than suggests that stringent and unique rules and regulations be adopted to protect and preserve this public land. Therefore I urge you to propose legislative rules and regulations that mandate the use of native plants and that a complete baseline of plants and animals is established prior to the commencement of drilling operations. The issuance of such measures will greatly enhance the integrity and authenticity of the evolution of this potential old growth forest.

Sincerely yours,

Norman R Steenstra
Legislative Director
West Virginia Citizen Action group

7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:49 PM
To: Ken Caplinger
Subject: FW: Proposed DNR State Forest Drilling Rules

From: Bill Douglas [mailto:Bill.Douglas@mail.wvu.edu]
Sent: Wed 7/25/2007 11:58 AM
To: West Virginia State Parks
Subject: Proposed DNR State Forest Drilling Rules

I write in general support of the proposed rules to be applied to all oil and gas drilling on State forest land. However, I am quite concerned with the rule that drillers are required to use seed mixtures that "are more beneficial to wildlife and less invasive" than has previously been required. What does this wording mean? What is the meaning of "less invasive"? I lived in Mississippi for many years. Long before my birth, the kudzu vine was introduced into the state as a means of erosion control. Now, the vine covers entire acres of land, including fences, trees and anything that stands still long enough. It is a major problem in certain parts of that state. "Less invasive" has no real meaning. I ask why in the proposed new rule that the drillers are not required to re-plant only native vegetation?

Sincerely,

Willard Douglas, Ph.D.
Associate Professor
West Virginia University at Parkersburg
300 Campus Drive
Parkersburg, WV

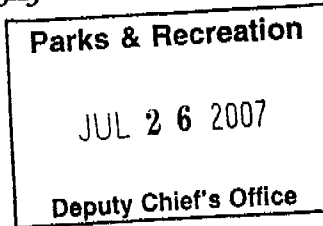
Phone: 304.424.8342
FAX: 304.424.8366

To: Bob
FBI
Kuc
7/26/07

KANAWHA VALLEY NATIVE PLANT SOCIETY

Route 3, Box 130 B
Leon, WV 25123

July 25, 2007



Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714
Capitol Complex
1900 Kanawha Boulevard, East
Charleston, WV 25305 0662

Dear Mr. Caplinger:

The members of the Kanawha Valley Native Plant Society support the your actions to protect the Kanawha State Forest and the other state forests of West Virginia. This opportunity to present our recommendations for the proposed DNR rules is appreciated.

We recommend the seeding and planting of disturbed areas, road building, and well sites be carried out with species native to West Virginia. Nonnative plantings place the long term biodiversity of the Forests at risk, and are unnecessary. Erosion control along with wildlife food and habitat enhancement is effective using native species and without the risks. Because the protection of native biodiversity is so crucial, we urge a full inventory of flora and fauna in areas of proposed drilling projects and maintenance.

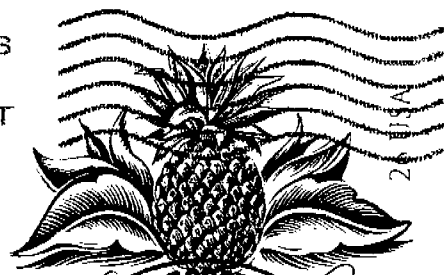
The proposed DNR rules represent a major step forward for West Virginia forest protection. However, we believe planting native species and an inventory of flora and fauna will promote the sustainability of the Forest ecosystem. Thank you for your consideration.

Respectfully yours,

A handwritten signature in cursive script that reads "Chris Gatens".

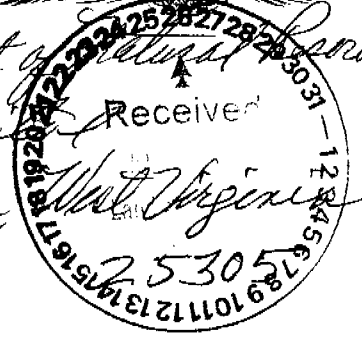
Chris Gatens, President
Kanawha Valley Native Plant Society

Marion Harless
P.O. Box 1 BARKSBURG WV 263
Berens, West Virginia
25 JUL 2007 PM 3 T
26276-9708

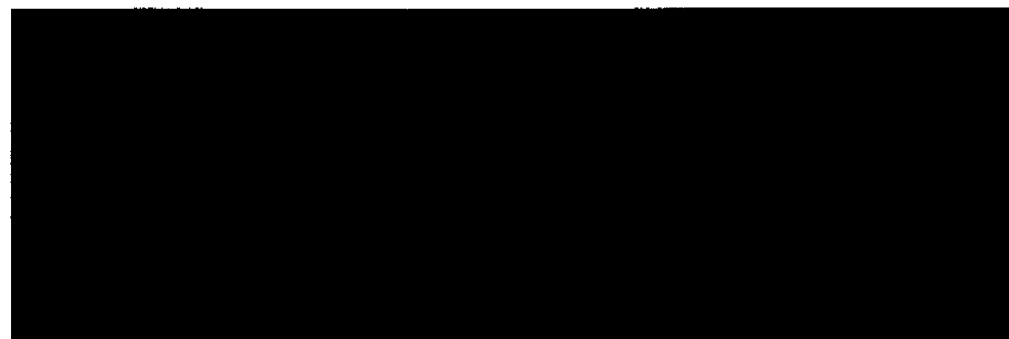


oil and
gas drilling
regulations,
deadline
7-27-07

Department of Natural Resources
State Capital
Charleston, West Virginia



Parks & Recreation
JUL 26 2007
Deputy Chief's Office

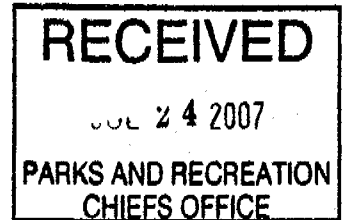


On all state and federal lands, oil
and gas drillers need to make the
smallest least obtrusive, most
topographically, geologically, and
ecologically sound roads possible.
They need to be planted with native
plants endemic to the area, not
exotic grasses. They ^(the roads) should never
be 30 feet wide with extra trees
cut! Private landowners should
aim for the same degree of concern
for the land, plants, animals and, especially,
songbirds.
Marion Harless



2: P203 B / the
7-24-07

July 24, 2007



Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714, Capitol Complex
1900 Kanawha Blvd. E.
Charleston, WV 25305-0662

Re: Proposed rules for conditions upon which oil and gas operators may access state forests.

Dear Mr. Caplinger,

I am so glad to hear that you have come out in support of the forests of West Virginia. As a weekly, sometimes more often, user of them I am encouraged by the recent legislation and proposed rules to protect them.

Last Labor Day, 2006, while hiking in Kanawha State Forest at 4 mile I discovered the damage done by Equitable and was appalled by the devastation to the land and vegetation. There was no reasonable excuse for this to happen. I believe that both the DEP and Superintendent Henley were at fault for the lack of oversight. Hopefully by enacting new legislation this will never happen again.

I love our forests and am in awe of the diversity found in them. What worries me is that the revegetation of the forests with non-native plants will ruin the efficacy among plants animals and insects, both macroscopic and microscopic. Non-native grasses and plants will also have an adverse effect both on the land and the animals that forage for food, i.e. driving some species out of the area. The mere activity of the well drilling operation itself is enough to upset the life cycles' of flora and fauna let alone adding non-native flora.

I do support your efforts to protect the forests of West Virginia and appreciate the time and effort you are spending to enact these rules. Please make the use of native vegetation a reality in the rules.

Thank you for the opportunity to comment on the proposed rules and for the work you are doing to make the oil and gas companies **do the right thing.**

Sincerely,

A handwritten signature in cursive script that reads "Yvonne Khourie".

Yvonne Khourie, avid hiker and forest user

Y. Khowrie
1931 Oakridge Dr
Chas 10Y 25311-1325

Kenneth H. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Rm 714, Capitol Complex
1900 Kana'owha Blvd.
Charleston, 10Y 25305-0662

Bob
FYI
W
7/24/07

July 20, 2007

Mae Ellen Wilson
1525 Hampton Road
Charleston, WV 25314

Parks & Recreation

JUL 24 2007

Deputy Chief's Office

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714
Capitol Complex
1900 Kanawha Boulevard, East
Charleston, WV 25305 0662

Dear Mr. Caplinger:

West Virginia's Forests with their wild flora and fauna are wondrous and a precious resource. Your actions to prevent needless wrecking of this land by oil and gas activity will help protect these exceptional places. You are to be commended. The DNR proposed Rules set forth needed practices and the opportunity to comment is appreciated.

Wild grasses, wild flowers and songbirds may have no explicit economic value; yet these wild things are members of the biotic community and disturbances disrupt its stability. The steps to their dance for survival are intricate and the interrelationships among the members that live above, on, and in the forest floor are complex. Our lives are enriched as a result of their existence. This precious natural legacy cannot be taken for granted. Because our State Forests are not only special but remarkable, please inventory the species of flora and fauna prior to road building and drilling to provide for their conservation.

Although no scientific names were provided for grasses to be used for reclamation in the proposed rules, it appears DNR is introducing non native species. In doing so, the potential exists for the non native seed to scatter and establish new colonies. Risks of fostering introduction of invasive species must be thwarted. Generally the purpose of the seeding is to control erosion. Feeding wildlife is secondary in the gas well activity reclamation. In either case the use of native seeds is beneficial. No better argument exists than the statement on the DNR web site: "Native plants also provide the greatest benefits to wildlife because our native wildlife evolved with native plants. Often the food provided by native plants is the most nutritious to our native wildlife." Please specify native seeds and native plants for the reclamation.

Advances in ecological knowledge and the devastating impact of invasive plants are changing both national and state policies and procedures in reclamation and habitat restoration. Market demand increased the native seed availability. Within

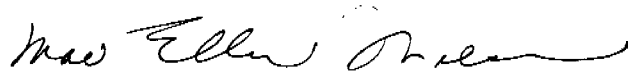
Mr. Caplinger
Page 2

a few hundred miles of WV Forests are located the fields of Ernst Seed, Meadville, Pa., and Roundstone seeds, Upton, Kentucky. Consequently, regional ecotype seeds are available. Excerpts from web sites of these companies are enclosed. A seed mixture specific to the forest site could even be formulated using the *Checklist and Atlas of the Vascular Flora of West Virginia*.

To summarize the DNR is be commended for their good work on the legislation and the Rules. Because the Forests of West Virginia are a precious resource and so special, please inventory the flora and fauna prior to gas well activity to provide for their conservation. Secondly, please specify native seeds and native plants for the reclamation.

Thank you for this opportunity to comment.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Mae Ellen Wilson".

Mae Ellen Wilson

Enclosures - 2



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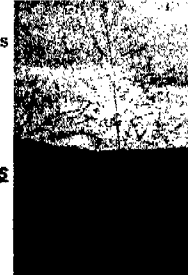
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Ernst Conservation Seeds specializes in native and naturalized seeds and plant material of eastern North American ecotypes, cleaned and tested to U.S. standards. Ernst supplies the highest quality seeds, mixes, and bioengineering products for restoration, reclamation, and conservation applications.

Wildflowers, native grasses, trees, and shrubs can naturalize your landscape, conserve water, reduce chemical requirements, and offer cover and food for birds and other wildlife. Ernst Conservation Seeds has built a history of establishing seed production of new species never before available.

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Ernst Conservation Seeds, LLP, 9006 Mercer Pike, Meadville, PA 16335

Call **800-873-3321** or 814-336-2404; Fax 814-336-5191

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Native Seeds Seed Mixes Trees & Shrubs Bioengineering Biomass

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Ernst Conservation Seeds Price List:

Native Reclamation Species

Please note: This portion of our site is under construction. We apologize for any inconvenience and strongly encourage you to check pricing prior to placing an order by fax 814-336-5191, or call 800-873-3321, or email us. Thank you.

Effective: Spring 2007

Prices subject to change without notice. See Terms & Conditions. Prices expressed in bulk pounds unless otherwise noted. Call Ernst 800-873-3321 for species not listed.

Botanical Name	Common Name	Price per LB
<u>Andropogon gerardii</u>	Bison Big Bluestem	18.00 PLS
<u>Andropogon gerardii</u>	Kear Big Bluestem	18.00 PLS
<u>Andropogon gerardii</u>	Niagara Big Bluestem	18.00 PLS
<u>Andropogon gerardii</u>	Pawnee Big Bluestem	18.00 PLS
<u>Andropogon gerardii</u>	Rountree Big Bluestem	18.00 PLS
<u>Bouteloua curtipendula</u>	Butte Side Oats Grama	12.00 PLS
<u>Bouteloua curtipendula</u>	Side Oats Grama, Eastern Ecotype	28.00 PLS
<u>Bouteloua curtipendula</u>	Side Oats Grama, PA Ecotype	26.00 PLS
<u>Bouteloua gracilis</u>	Blue Grama	12.00 PLS
<u>Elymus canadensis</u>	Canada Wild Rye, Eastern Ecotype	8.00 PLS
<u>Elymus hystrix</u>	Bottlebrush Grass, Eastern Ecotype	38.00 PLS
<u>Elymus riparius</u>	Riverbank Wild Rye, Eastern Ecotype	6.40 PLS
<u>Elymus villosus</u>	Silky Wild Rye, Eastern Ecotype	Available Spring '08
<u>Elymus virginicus</u>	Virginia Wild Rye, Eastern Ecotype	4.50 PLS
<u>Eragrostis trichodes</u>	Sand Lovegrass	11.00PLS
<u>Panicum amarum, VA Ecotype</u>	Atlantic Coastal Panic Grass	8.00 PLS
<u>Panicum anceps</u>	Beaked panic Grass	38.00 Bulk
<u>Panicum anceps, FL Ecotype</u>	Beaked panic Grass	38.00 Bulk
<u>Panicum clandestinum</u>	Toga Deer Tongue	16.00 PLS
<u>Panicum virgatum</u>	Blackwell Switch Grass	10.00 PLS
<u>Panicum virgatum</u>	Carthage Switch Grass	11.00 PLS
<u>Panicum virgatum</u>	Cave-in-Rock Switch Grass	10.00 PLS
<u>Panicum virgatum</u>	Dacotah Switch Grass	10.00 PLS
<u>Panicum virgatum</u>	Forestburg Switch Grass	10.00 PLS
<u>Panicum virgatum</u>	NE 28 Switch Grass	10.00 PLS
<u>Panicum virgatum</u>	Shawnee Switch Grass	10.00 PLS
<u>Panicum virgatum</u>	Shelter Switch Grass	10.00 PLS
<u>Panicum virgatum</u>	Sunburst Switch Grass	10.00 PLS
<u>Panicum virgatum</u>	Switch Grass, VNS	10.00 PLS
<u>Schizachyrium scoparium</u>	Aldous Little Bluestem	12.00 PLS
<u>Schizachyrium scoparium</u>	Blaze Little Bluestem	12.00 PLS
<u>Schizachyrium scoparium</u>	Camper Little Bluestem	12.00 PLS
<u>Schizachyrium scoparium</u>	Little Bluestem, PA Ecotype	14.00 PLS
<u>Schizachyrium scoparium</u>	Little Bluestem, CT Ecotype	16.00 PLS
<u>Schizachyrium scoparium</u>	Little Bluestem, Albany Pine Bush Ecotype	16.00 PLS
<u>Sorghastrum nutans</u>	Nebraska 54 Indian Grass	11.00 PLS
<u>Sorghastrum nutans</u>	Tomahawk Indian Grass	11.00 PLS
<u>Sorghastrum nutans</u>	Rumsey Indian Grass	11.00 PLS
<u>Sorghastrum nutans</u>	Osage Indian Grass	11.00 PLS
<u>Sorghastrum nutans</u>	Indian Grass, WI Ecotype	11.00 PLS
<u>Tridens flavus</u>	Purple Top	16.00 BULK
<u>Tridens flavus</u>	Purple Top, "Suther", NC Ecotype	32.00 BULK
<u>Tridens flavus</u>	Purple Top, VA Ecotype	32.00 BULK
<u>Trinacrum dactyloides</u>	Eastern Gamma Grass	10.00 PLS

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Ernst Conservation Seeds, LLP, 9008 Mercer Pike, Meadville, PA 16335

Call 800-873-3321 or 814-336-2404; Fax 814-336-5191

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Contact Us

Got questions? You don't have to place an order at Roundstone Native Seed LLC to get someone to talk to you. We are more than happy to share our experience.

Roundstone Native Seed LLC
9764 Raider Hollow Road
Upton, Kentucky 42784

270.531.2353 Office/Randy Seymour
270.537.5186 Cell
270.531.3034 John Seymour
270.268.6619 Cell
270.531.2885 Fax

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Randy@roundstoneseed.com
John@roundstoneseed.com

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Native Warm Season Grasses

Wildflowers & Legumes

Custom Mixes

If you find prices lower than ours,
ask yourself --

- How much chaff is in the other product?
- Does the other product contain weed seed?
- Will you be getting what is on the tag?
- How much of the weight is awns & beards?
- Is the other product debarbed for easier planting?

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Native Grass Seed

Common Name	Botanical Name	0-5 lbs.	6-25 lbs.	25+ lbs.
Big Bluestem	<i>Andropogon gerardii</i>	\$16.00	\$14.00	\$12.90
Canada Wild Rye	<i>Elymus canadensis</i>	\$11.20	\$9.75	\$8.90
Eastern Gamma Grass	<i>Tripsacum dactyloides</i>	\$15.00	\$13.20	\$11.50
Fall Panicum	<i>Panicum anceps</i>	\$39.60	\$34.50	30.00
Indian Grass	<i>Sorghastrum nutans</i>	\$11.80	\$10.25	\$8.90
Little Bluestem	<i>Schizachyrium scoparium</i>	\$14.80	\$12.90	\$11.25
Purple Top	<i>Tridens flavus</i>	\$17.50	\$15.50	\$13.50
River Oats	<i>Uniola latifolia</i>	\$210.00	\$185.00	\$160.00
Side Oats Gramma	<i>Bouteloua curtipendula</i>	\$13.50	\$12.50	\$10.90
Switchgrass	<i>Panicum virgatum</i>	\$11.70	\$10.60	\$9.90
Tall Dropseed	<i>Sporobolus compositus</i>	\$22.00	\$19.50	\$17.00
Thin Paspalum	<i>Paspalum setaceum</i>	\$210.00	\$185.00	\$160.00
Virginia Wild Rye	<i>Elymus virginicus</i>	\$9.00	\$8.50	\$7.90

Prices are per PLS pound

Native Wildflower Seed

Common Name	Botanical Name	0-5 lbs.	6-25 lbs.	25+ lbs.
Bergamot	<i>Monarda fistulosa</i>	\$215.00	\$190.00	\$165.00
Blackeyed Susan	<i>Rudbeckia hirta</i>	\$31.70	\$27.60	\$24.00
Browneyed Susan	<i>Rudbeckia triloba</i>	\$56.00	\$52.00	\$48.00
Butterfly Milkweed	<i>Asclepias tuberosa</i>	\$295.00	\$265.00	\$250.00
Canada Tick Trefoil	<i>Desmodium canadensis</i>	\$56.00	\$52.00	\$48.00
False Sunflower	<i>Helopsis helianthoides</i>	\$45.00	\$39.00	\$34.00
Greyheaded Coneflower	<i>Ratibida pinnata</i>	\$64.00	\$56.00	\$49.00
Illinois Bundleflower	<i>Desmanthus illinoensis</i>	\$17.50	\$15.40	\$13.90
Iron Weed	<i>Veronica altissima</i>	\$130.00	\$114.00	\$99.00
Joe Pye Weed	<i>Eupatorium fistulosum</i>	\$390.00	\$340.00	\$299.00
Lance Leaved Coreopsis	<i>Coreopsis lanceolata</i>	\$46.00	\$40.00	\$35.00
Maximilian Sunflower	<i>Helianthus maximiliani</i>	\$53.00	\$46.00	\$40.00
New England Aster	<i>Aster novae-angliae</i>	\$125.00	\$115.00	\$105.00
Partridge Pea	<i>Cassia fasciculata</i>	\$16.40	\$14.30	\$12.50
Purple Coneflower	<i>Echinacea purpurea</i>	\$49.00	\$43.70	\$38.00
Purple Prairie Clover	<i>Dalea purpureum</i>	\$32.50	\$29.00	\$24.00
Rattlesnake Master	<i>Eryngium yuccifolium</i>	\$145.00	\$127.00	\$110.00
Rigid Goldenrod	<i>Solidago rigida</i>	\$163.00	\$145.00	\$125.00
Rough Blazing Star	<i>Liatris aspera</i>	\$137.50	\$125.00	\$110.00
Roundheaded Lespedeza	<i>Lespedeza capitata</i>	\$169.00	\$150.00	\$130.00
Showy Tickseed	<i>Bidens aristosa</i>	\$38.00	\$33.00	\$29.00
Smooth Aster	<i>Aster laevis</i>	\$290.00	\$255.00	\$225.00
Spiked Blazing Star	<i>Liatris spicata</i>	\$145.00	\$127.00	\$110.00
Tall Coneflower	<i>Rudbeckia laciniata</i>	\$320.00	\$280.00	\$245.00
Tall Coreopsis	<i>Coreopsis tripteris</i>	\$390.00	\$340.00	\$295.00
White Prairie Clover	<i>Dalea candidum</i>	\$32.50	\$29.00	\$25.00
White Wingstem	<i>Verbesina virginica</i>	\$290.00	\$260.00	\$225.00
Wild Senna	<i>Cassia marilandica</i>	\$95.00	\$85.00	\$75.00

*Other species are available but may not be Ecotype –
call for availability and pricing. Quantity discounts available.

Prices subject to change without notice.

***Call us for special pricing on CRP, WHIP, CREP, and other Farm
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Custom Mixes

We can help find the right mix of grasses, forbs, and legumes for you!

We do not offer pre-selected mixes due to the wide range of variables that determine the best mix for your purposes, such as soil type and drainage, prior land use, specie composition of competition, seeding equipment and methods, herbicide selection, primary wildlife specie, and many more. You will be better satisfied with a mix designed specifically for your purposes.

Call us with your mix or we will be pleased to help you design a mix that best suits your circumstances and goals. We will mix your seed at no extra cost.

- Volume and dealer discounts available.
- Prices are FOB our warehouse.

TO: Bob B
KAC
1/24/07

Parks & Recreation

JUL 24 2007

Deputy Chief's Office

July 23, '07

DEAR Sir:

RE: Kanawha State Forest
AND gas drilling rules.

I am very glad to know that
you folks are helping us take good
care of Kanawha State Forest.

Our forest is a blessing to folks in
Charleston.

I certainly hope that the gas companies
will abide by your new rules & regulations
so that the future of our Forest is
protected.

Thank you—
Carolyn Welcker

Carolyn Welcker
Apt. 607
1 Morris St.
Charleston, WV 25301-2921



July 19, 2007

Kenneth K. Caplinger
Acting Chief, Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714, Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Parks & Recreation

JUL 24 2007

Deputy Chief's Office

Dear Mr. Caplinger,

I would like to comment on the new DNR rules for drilling in our state forests.

I am pleased that these excellent rules are going into effect. I would urge you to add two additional important items:

1. Specify that native plants be used in reclamation, and
2. Require that an inventory of animals and plants, with an emphasis on rare species and high-quality natural habitats, be done prior to the construction of any well site or well road.

I am concerned about the development of oil and gas drill sites in state forests for several reasons. In my work as an ecologist, I have observed that most of the biodiversity of West Virginia occurs on our public lands, and I would like to see these natural treasures retained for our enjoyment and use on into the future. I also hike and camp on our state forests with my family and friends. This important quality of life benefit is the main reason that I choose to stay in West Virginia, despite more lucrative opportunities elsewhere.

Thank you for the opportunity to comment, and thank you for promulgating these excellent new rules to safeguard our state forests.

Regards,

Elizabeth A. Byers

Douglas Atkins
346-0318 - W
768-2025 - H
Jeff Blount
558-9750 - W
343-3569 - H
Rita Dale
755-4650 - H
Bill Hall
341-0511 x 1704 - W
342-2660 - R
Dennis Hamrick
767-6865 - W
344-8342 - R
Martha Hopper
343-7296
Chuck Jones
346-2391 - W
345-8995 - H



Julian Martin
342-8989
James Waggy
925-6124 - H
Robert Ward
926-6410 - H
Mae Ellen Wilson
342-8989

Shirley Schweizer
925-2771
Events Coordinator

John Hendley, Supt.
558-3500
Kevin Dials, Asst. Supt.
558-3500

Judge not man or his forests until you have walked in his shoes and camped in their hollows.

July 20, 2007

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714
Capitol Complex
1900 Kanawha Boulevard, East
Charleston, WV 25305-0662

Subject: Proposed Rules for Conditions upon which Oil and Gas Operators May Access
State Forests

Dear Mr. Caplinger:

We support and applaud your actions to help protect the Forests of West Virginia. The Kanawha State Forest Foundation was founded by men and women who loved that Forest. The present members are grateful that, by the recent legislation and your proposed rules, all West Virginia Forests will benefit from these defenses against the havoc wreaked by some oil and gas drilling activities. This opportunity to respond to the proposed Legislative Rules is appreciated.

Our Forests grace the landscape of our hills and valleys with awe-inspiring beauty. Our eyes feast on a spectacular array of native plants, and our spirits are cheered by birdsong. We rejoice in the seen and unseen forest dwellers. Many, many essential, unseen organisms reside in the soil. Our native plants form communities and ecosystems that support all living things, and it is impossible to know all the implications from the loss of one or more species. Biodiversity must be preserved.

Because our Forests are replete with beauty and biodiversity, we believe an inventory of flora and fauna in areas to be affected by oil and gas operators' access to State Forests is critical to maintaining the Forests' integrity and should be included in the Rules. To further safeguard that integrity, only native species should be used in reclamation. The State of West Virginia should not allow non-native species to be introduced or used for any purpose.

Our research and our considerations steered us to conclude that native grasses are

Mr. Caplinger
July 20, 2007
Page 2

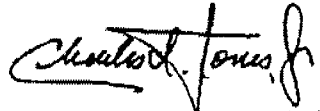
effective in controlling erosion, are available, and should be used for reclamation. Although one purpose of the reclamation is to check erosion, our research shows that native grasses provide better quality forage and habitat to wildlife while maintaining native forest biodiversity.

The disturbances from the oil and gas activities upset the delicate balance of the natural community. This upset can be a blatant invitation to the invasive species that are endangering our Forests. Native species provide keystone elements in the ecosystem recovery. We appeal to you to specify native vegetation for reclamation in the Rules.

In summary, we support and applaud your actions to protect our forests. We earnestly request that you to specify solely the use of native vegetation in the Rules.

Thank you for your work and this opportunity to comment on the proposed Legislative Rules.

Very truly yours,

A handwritten signature in black ink, appearing to read "Charles I. Jones, Jr.", with a stylized flourish at the end.

Charles I. Jones, Jr., Chairman
Kanawha State Forest Foundation

Bob Beanblossom

From: Ken Caplinger
Sent: Friday, July 20, 2007 9:37 AM
To: Bob Beanblossom
Subject: FW: Comments on the proposed rules

Another comment

-----Original Message-----

From: West Virginia State Parks
Sent: Friday, July 20, 2007 9:31 AM
To: Ken Caplinger
Subject: FW: Comments on the proposed rules

From: L DADISMAN [mailto:ldadisman@yahoo.com]
Sent: Thu 7/19/2007 9:26 PM
To: West Virginia State Parks
Subject: Comments on the proposed rules

Kenneth K. Caplinger
Chief, Parks and Recreation Section
Division of Natural Resources,
Building 3, Room 714, Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Re: Comments on the proposed rules giving more protections to West Virginia's State Forests

sp;

July, 17, 2007

Dear Chief,

I am concerned about the abuses of oil and gas drillers in the State Forests, Kanawha State Forest in particular. Our state forest being abused shows the need for special protections from those who do not have the same respect for public lands and forest. I praise the new rules added and they must be strictly enforced. We have only a few of these individual beautiful settings and treasures preserved for all time by our forefathers that are not to be found again if they are destroyed. These areas are used for our society to enjoy and use for recreation. Their destruction or damage would amount to a loss that is incalculable. Protect them with all duty.

Some other rules that might be added or strengthened.

1. Companies generally pay surface owners for access

7/23/2007

2. There needs to be an abandonment bond to cover clean-up after the site is left. Reclamation rules that require impacted lands to be restored to their original condition. These rules expanded and strengthened
3. All revegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road.
4. Prevent or mitigate environmental impacts by requiring companies use of special equipment and technology such as directional drilling or pitless drilling systems to protect public health, safety and welfare, taking into consideration cost-effectiveness and technical feasibility also the costs of any condition imposed for environmental purposes.
5. A full 'due regard' concept requiring mineral rights holders to accommodate surface owners to the fullest extent possible consistent with their right to develop the mineral estate.
6. Rules of noise and pollution specific to oil and gas operations such as flaring gas wells
7. Safeguard, rules aimed at preventing unpermitted discharges to surface waters.
8. Colorado Division of Wildlife, CDOW biologists have confirmed that gas wells developed at one well per 40 acres typically have less impact on wildlife than 35 acre ranchette development does.
9. Facilities have a long-lasting impact. "Cumulative impacts" analysis for projects proposed on private or state-owned lands. Ensure facilities , do not impact the areas of greatest importance for biodiversity, ecological value and minimize impacts on all other areas. Protecting sensitive areas from oil and gas development and minimize impacts on all other area
10. Field inspectors equipped with sound level meters and frequently take field measurements in response to complaints. If sound levels measured from oil and gas operations exceed those specified under state sound rules , enforcement action is initiated to bring them into compliance. Levels of sound that the courts use to determine the extent to which the noise constitutes a public nuisance.
11. Report all Discharges and be limited and monitored by the permittee to meet scientific guidelines.

Sincerely,

Larry Brent Dadisman
912 Greendale Dr.
Charleston, WV 25302-3224
ldadisman@yahoo.com

CONFIDENTIALITY NOTE: This email message is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply email and destroy all copies of the original message. --

LBD

Fussy? Opinionated? Impossible to please? Perfect. Join Yahoo!'s user panel and lay it on us.

7/23/2007

To: Bobb FYI Kuc
July 23, 2007 7/27/07

Kenneth K. Caplinger
Acting Chief, Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714, Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Dear Mr. Caplinger,

I am concerned about the abuses of oil and gas drillers in West Virginia's State Forests and I wish to express my support for the new requirements that the Department of Natural Resources has included in the rule for drilling in the State Forest.

As we are all aware the establishing of the State Forests, in conjunction to the setting aside of public lands in the form of National Forests and Parks, was to reclaim the land that was destroyed by the timber industry during the boom. Over the years those forests have provided valuable "insurance" to the citizens of West Virginia – preservation of the water, the soil and wildlife – and places for hunting, fishing and recreation, all of which contribute substantially to the economy of West Virginians.

I have reviewed the proposed DNR rule and am pleased to see that it greatly improve the protections that Kanawha and all other State Forests will receive. Personally, being a great fan and the biographer of Calvin W. Price, for which our Pocahontas County forest was named, I am opposed to well sites and roads built on the public land for access to oil and gas drillers. It is my opinion that the original intent of the public forest designation was to insure timber conservation and wildlife management. Well drilling and well access is outside of that scope.

I do feel that 2 additional requirements should be given consideration for inclusion in the rule in order to protect the public interest and ownership of the forests. 1) All re-vegetation should be done with native plants as opposed to non-native seeds/plantings. 2) A full inventory of the animals and plants should be done before the construction of any well site or well road.

These two additions would help to protect our tourist and hunting revenues AND would reaffirm to the citizens that their interests remain in good hands.

Sincerely,

B. J. Sharp-Gudmundsson

Ms. B. J. Sharp-Gudmundsson
106 Lamplighter Drive
Lewisburg, WV 24954
304-645-4998

Parks & Recreation

JUL 25 2007

Deputy Chief's Office



SIERRA
CLUB
FOUNDED 1892

West Virginia Chapter

July 23, 2007

Kenneth K. Caplinger
Acting Chief, Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714, Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Parks & Recreation

JUL 25 2007

Deputy Chief's Office

Dear Mr. Caplinger:

WV Chapter of Sierra Club supports the Department of Natural Resources' (DNR) proposed rules for the protection of WV state forests. The unauthorized and unnecessary mile-long, 60-foot wide access road cut by Equitable Resources to reach a drill site at the head of Dunlap Hollow in Kanawha State Forest is a wake-up call to the need for added protections. This destruction could have been avoided had these rules had been in effect in June 2006.

This unfortunate and unnecessary destruction points to the need for increased protections. Sierra Club members commend the Department of Natural Resources for these proposed rules and the Kanawha State Forest Coalition for seeking legislation to protect the forest from future damage from oil and gas development. The WV Chapter would suggest that the new rules require drillers to re-vegetate roads and drill sites with native species of grasses and other plants and to do a complete inventory of affected plants and animals when planning roads or well sites. We would urge you to incorporate these provisions into the proposed rule changes.

Because of the extensive mining damage and wholesale destruction of natural resources which has taken place immediately outside the park, and indeed throughout Southern WV, the Kanawha State Forest is one of our few remaining precious assets which contributes to the quality of life in the Kanawha Valley. I urge you to promulgate and enforce these proposed rules.

Sincerely,

Vice Chair and Political Chair
SIERRA CLUB, WV CHAPTER

Regina M. Hendrix

Regina M. Hendrix
1637 Quarrier St. E., Apt. 3
Charleston, WV 25311
(304) 343-5211

TO: Bob B
Fyt/Kuc
7/26/07
July 24, 2007

Kenneth K. Caplinger, Acting Chief
Parks and Recreation
Division of Natural Resources
Building 3, Room 714
1900 Kanawha Boulevard, East
Charleston, WV 25305 0662

Parks & Recreation

JUL 26 2007

Deputy Chief's Office

Dear Mr Caplinger,

I have watched, with interest, the process that is taking place regarding the promulgation of rules for practices related to the non-recreational use of West Virginia's forests, particularly drilling and foresting. I must commend you on your willingness to hear, without prejudice, the views of stakeholders in this matter. I would like offer my thoughts.

I understand that on occasion activities take place in these areas that bring the possibility of damage; and without proper oversight, irreparable harm. In my view, it is critical that your office take every opportunity to minimize problems caused by these activities while maintaining the natural, original vegetation that existed prior to any adverse activity. The steps that are important to those who care deeply about our forests include:

- Inventorying plant species to assure reparations are made with suitable vegetation
- Careful monitoring of any work to assure agreed upon regulations and activities are not expanded nor ignored causing even more harm
- The use of native seeds and seedlings to assure the ecological balance needed for both plants and animals remains intact.

Please accept my gratitude for your work in this matter. I look forward to seeing your response in the form of continued concern for our woodlands. I remain,

Sincerely,


Jay Wildt
4405 Noyes Ave.
Charleston, WV 25304

Bob

Parks & Recreation

JUL 27 2007

Deputy Chief's Office

FACSIMILE TRANSMITTAL

To: Kenneth K. Caplinger

Fax Number: 304-558-0077

Email: parks@wvdnr.gov

Date: 07/26/2007

Pages (including cover): 7

Regarding: Comments on New DNR Rules for Drilling in State Forests

From:

Joseph J. Gagnier
4504 45th Street, N.W.
Washington, DC 20016-4425
Phone: (202) 364-5051
Fax: (202) 364-3116

Gagnier, Joseph (ACF)

From: Gagnier, Joseph (ACF)
Sent: Thursday, July 26, 2007 4:05 PM
To: 'parks@wvdnr.gov'
Cc: Global (boni@highstream.net); Mike Edelman
Subject: Comments On New DNR Rules for Drilling In State Forests

Importance: High

Kenneth K. Caplinger
Acting Chief, Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714
Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Dear Mr. Caplinger:

I am concerned about the abuses of oil and gas drillers in State Forests. My concerns are based on a recent and ongoing personal experience with a gas well being placed on my personal property by PetroEdge Resources with the permission (rubber stamp) of the West Virginia Department of Environmental Protection (WVDEP). Below, I have reproduced my most recent letter addressed to the WVDEP describing my current situation followed by two earlier letters.

I believe this proposed rule greatly improves the protections that Kanawha State Forest and all State Forests will receive. I support all of the good new requirements that the Department of natural Resources has in this rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road.

Finally, although I support this rule, I don't think it goes nearly far enough. Given my experience, I believe that the average citizen has no rights in the face of large companies such as PetroEdge. I understand my limitations as a surface right owner that does not own the mineral rights to my property. As a State Park user, I can only imagine how much more limited my rights may be. It defies comprehension how a drilling company can trespass on to my land or State Parks with the blessing of the WVDEP and permanently remove the use of that land, i.e., the acreage around the drill site as well as the acreage under which the supply line is buried, for as long as the well is productive...while I continue to pay taxes.

Sincerely,

Joseph J. Gagnier
4504 45th Street, N.W.
Washington, DC 20016-4425

Letter 1

July 24th, 2007

Allen Blankenship
Regulatory Compliance Manager
WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, WV 25304

Dear Mr. Blankenship,

I called your office earlier this morning and left a voice-mail message expressing my concerns about PetroEdge Resources (WV) LLC who are drilling for gas on my property.

The first letter that I sent to you (dated April 12th, 2007) expressed my concerns regarding how PetroEdge had cleared more land than what the WV Department of Environmental Protection authorized. The WVDEP took no action.

This letter concerns how PetroEdge is polluting the creek that runs through my property and beyond. Upstream, away from the pit being used to collect water from the "fracking" process, the water running through my creek is crystal clear. Next to the pit and moving downstream, the water has turned a brackish brown.

I believe that PetroEdge (with the complicity of the WVDEP) is polluting my property and all properties and wildlife downstream from my property (including ground water). I believe that the drilling operation should be suspended indefinitely until an abatement program is put into place followed by a complete environmental clean-up.

As evidence of my complaint, I have taken several digital pictures and videos that document the ongoing destruction and pollution. If required, I will make this material available to you and any/all other interested parties. If required, I will contact other agencies/organizations to provide an independent assessment.

In an effort to protect my interests, those of my neighbors living downstream, as well as any/all wildlife and the environment, I am requesting a formal inspection and the application of any/all applicable citations and fines. Furthermore, I am requesting a written response to this complaint as well as any copies of citations and fines.

To ensure that my concerns are being heard, I am providing courtesy copies of this letter to several other persons inside and outside of your organization. I look forward to your prompt reply to ensure that the WV Department of Environmental Protection continues "promoting a healthy environment" for all of WV.

Respectfully,

Joseph J. Gagnier
4504 45th Street, N.W.

Washington, DC 20016-4425

Letter 2

May 14th, 2007

Randy Huffman
Deputy Cabinet Secretary
WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, WV 25304

Dear Mr. Huffman,

I have received your response to my letter of April 30, 2007, to Governor Manchin.

I am deeply disappointed. I must conclude that Governor Manchin and the West Virginia (WV) Department of Environmental Protection (DEP) have little interest in protecting the environment. Furthermore, I must conclude that Governor Manchin and the WV DEP have little interest in protecting WV landowners from the predatory practices of oil and gas companies. Finally, I must conclude that Governor Manchin and the WV DEP do not see any contradiction between levying property taxes against surface owners while simultaneously trampling on the rights of surface owners to control their property.

I am sure you are aware that the first phase of destruction to the surface of my property is complete. Approximately two acres of my property has been cleared and leveled. Mature birch, poplar, and wild cherry trees have been cut down and replaced with a lifeless drill site littered with very large gravel sunken into the mud resembling a parking lot. The area is further blighted by two very large pits. Erosion has begun. The trees that were cut down have eliminated the privacy between the county road and the home that I am building. And WV will continue to impose and collect property taxes from me for land completely destroyed by PetroEdge Resources and the WV DEP.

The second phase of destruction is on the horizon. Now that the drilling is complete and a viable well has been established, PetroEdge Resources and the WV DEP need to move the gas to a private or public transmission line. Rather than lay pipe from the drill site to the nearest county/municipal road (**within a few hundred feet**), they have marked a path thousands and thousands of feet long, that will be twenty feet wide, and cut across several more wooded acres of my property and others. All of this in order to lay pipe to move the gas to a private or public transmission line located on or near a distant county road. Why? Is this a business decision or environmental decision?

Let me restate what I wrote to Governor Manchin. Money and power need not be used to disenfranchise the average citizen and damage the environment. Corruption and greed need not be the subtext for business and legislative practices. Indeed, there may not be an easy solution to the competing interests or rights of mineral estate owners and surface estate owners.

But the WV DEP has a clear mandate and should stop hiding behind the WV Code Chapter 22, Article 7. Please stop paying lip service to ensuring the protection of the environment, e.g., "properly administer(ing) the laws of this state" and "assess(ing) the need for future legislation".

Speak the truth. Characterize this activity for what it is, i.e., eminent domain. Why not simply admit that Governor Manchin and the WV DEP will exercise eminent domain for the benefit of developers and commercial interests and that the environmental value of land and trees is of little concern? Why not admit that tax-paying surface owners will not be protected by Governor Manchin or the WV DEP from the predatory practices of oil and gas companies? Why not admit that in WV, concepts such as "constitutional protections" and "democratic principles" are not equally applied to different persons of different means?

In closing, I want to reiterate how deeply disappointed I am with your response. It mystifies me how a government agency that is tasked with protecting the environment seems either unable or unwilling to carry out its mission. I can only hope that other persons and organizations will find this sad state of affairs to be sufficiently troubling that adequate pressure can be brought to bear on Governor Manchin and the WV DEP to fairly interpret the existing law and/or modify the existing law to guarantee the responsible stewardship of our environment. Can we agree that we should strive to leave our environment in a better condition than we found it? Or, is that asking too much!

Respectfully,

Joseph J. Gagnier
4504 45th Street, N.W.
Washington, DC 20016-4425

Attachment:

Randy Huffman letter dated May 2, 2007

Letter 3

April 30th, 2007

Open Letter to Joe Manchin III, Governor of West Virginia

What is the difference between a stand of living, mature trees and the same trees cut down? The answer seems self-evident. Living, mature trees support the health of the environment by removing carbon dioxide from the air while adding valuable oxygen to the atmosphere, provide precious habitat for a myriad of animals and insects, offer privacy, shade, and serenity, help control erosion, etc. The same stand of trees cut down, laying in the mud and left to rot, or sold for a few dollars to a logging company, offer next to no environmental benefit. But in fact, according to oil and gas companies, as well as the West Virginia (WV) Department of Environmental Protection (DEP), there is no difference.

As a landowner who does not own the mineral rights to my property, the surface of my land does not belong to me either. The painful reality of

this contradiction takes the form of taxes. I am required to pay property taxes for land that can be completely transformed by a party or parties that do not share any of my property tax burden. More specifically, an oil and gas company (with the blessing or complicity of the WV DEP) can trespass and savage the surface of my land. Working together, these two parties can destroy several acres of property in exchange for a "Revegetation Treatment" program comprised of some grass seed, some clover, some lime, some fertilizer, and some bales of mulch. To preserve some semblance of neutrality, the WV DEP has provided me with a copy of Article 7, Chapter 22 of the WV Code regarding damage compensation.

So, what does the WV Code say? On the one hand it states: "Exploration for and development of oil and gas reserves in this state must coexist with the use, agricultural and otherwise, of the surface of certain land and that each constitutes a right equal to the other." On the other hand, it states: "It is the purpose of this article to provide constitutionally permissible protection and compensation to surface owners of lands on which oil and gas wells are drilled from the burden resulting from drilling operations..." coupled with "This article shall be interpreted to benefit surface owners, regardless of whether the oil and gas mineral estate was separated from the surface estate". The question remains: Who is being protected and who benefits? Not the surface owner.

With respect to compensation of surface owners for drilling operations, the WV Code is both specific and general. The WV Code speaks specifically about lost income from land being taken out of service, crops destroyed, water supply damage, and personal property damage. However, the WV Code also speaks generally about "the diminution in value, if any, of the surface lands and other property after completion of the surface disturbance". On this last point, it can be argued that the WV Code is making a half-hearted attempt to account for and capture something more than the quantifiable market value for land taken out of service, crops destroyed, etc. Clearly, there is a difference between a pasture and woodland. Indeed, there is a substantial difference between the value of a barren and lifeless drill site and that of a well-established and pristine ecosystem. There is a cost associated with the degradation and destruction of a pristine ecosystem. What value are we willing to place on a well-established ecosystem that requires the span of a human lifetime to develop and evolve? Looking to buy property in WV? Buyers beware!

Adding insult to injury is the clear intention of the WV DEP to side-step any involvement in the legal process. Although the WV DEP reviews and approves applications for oil and gas permits with respect to compliance, they seem to have no interest in protecting WV's natural resources or concern for the rights of WV surface owners (who are left "twisting in the wind" while trying to protect themselves as well as protect WV's natural resources). Sadly, the WV code seems to be more reactive than proactive providing the WV DEP with a means by which they can easily capitulate to oil and gas companies and rubber stamp permit applications. This state of affairs is not merely unfair but can be characterized as predatory. It pits the average WV land owner against oil and gas companies who, more often than not, have substantially greater resources to overwhelm and suppress all attempts to interrupt their work, provide adequate compensation, or a true and fair negotiated settlement.

In closing, it should be mentioned that proposed legislation includes some new language that would prohibit oil and gas drillers from 'daylighting' the roads and sites they build by cutting down timber in wide swaths of both sides of the road site and would increase the compensation that a surface owner receives. This additional language is a modest start. However, it simply does not go far enough. In the absence of a concerted effort by conscientious lawmakers, government representatives, and other interested parties, the current state of affairs will continue indefinitely. I hope this letter will provide additional impetus for the responsible stewardship of our environment. I hope that this letter will help replace our complacency and neglect with a collective legacy that benefits everyone. Money and power need not be used to disenfranchise the average citizen and damage the environment. Corruption and greed need not be the subtext for business and legislative practices. Otherwise, maybe it is time for the WV DEP to remove the phrase "Promoting a healthy environment" from its stationary and replace it with something more appropriate such as **"Promoting big business at the expense of a healthy environment"**.

Respectfully,

Joseph J. Gagnier
4504 45th Street, N.W.
Washington, DC 20016-4425
Phone (202) 364-5051
Fax (202) 364-3116

Bob Beanblossom

From: Ken Caplinger
Sent: Thursday, July 26, 2007 3:53 PM
To: Bob Beanblossom
Subject: FW: State Forests Oil & Gas Rules

fyi

-----Original Message-----

From: West Virginia State Parks
Sent: Thursday, July 26, 2007 3:50 PM
To: Ken Caplinger
Subject: FW: State Forests Oil & Gas Rules

From: Doug Atkins [mailto:doug@atkinsandatkins.com]
Sent: Thu 7/26/2007 12:44 PM
To: West Virginia State Parks
Subject: State Forests Oil & Gas Rules

My name is Doug Atkins, a resident of Kanawha County, and I give the following comment on the Oil and Gas Rules proposed by the Department of Natural Resources:

Most people know what happened to Wildcat Trail when Equitable Resources drilled one of its new wells in Kanawha State Forest. Prior to the road being constructed I, personally, requested a meeting with Equitable Gas representatives about the problems I foresaw about the proposed road (namely, marring a popular recreational corridor to Wildcat Trail and a potential disturbance of Wildcat Trail itself). The purpose of this meeting was my proposal for an alternate, less damaging, route to the well site. A meeting was held at the Superintendent's office soon thereafter. Chuck Jones, David McMahon, Dennis Hamrick, John Hendley (Superintendent), Chris Ballard of Equitable, another man from Equitable whose name I have forgotten, and myself were present. At this meeting I was told by Chris Ballard that my recommendation of an alternate route would be considered; and that no matter what "Wildcat Trail [would] not be disturbed." I was also told by the other gentleman from Equitable that if my route was not chosen that reclamation would take place, including the planting of pine trees. Subsequent to this meeting, Mr. Ballard rejected the alternate route I proposed. Consequently, the mile of day-lighted road was built off permit and Wildcat Trail was bisected. All that happened to Equitable for this offense was a \$25,000 charge for the destroyed timber (A mere slap on the wrist for a multi-million dollar company). And to this day, there has been little reclamation and no trees planted.

Other problems have persisted as well. A new well was drilled on a road to Pine Ridge Trail and the grass used for reclamation is more like insidious weeds. Also, being on the Board of the Kanawha State Forest Foundation I have heard of companies habitually not locking gates, commencing excavation work without notice, and contractors defecating around well site areas (portable latrines were then requested and the companies unnecessarily placed these latrines on or near the trailheads). There also have been times when the strong smell of sulfur was around the swimming pool area, Porter Camp, Pine Ridge etc. . . .

The reason I mention these past problems is to emphasize the need for stronger rules for these companies follow. Kanawha State Forest, and ALL state forests for that matter, are legitimate environmental and recreational destinations spots for the public. I understand and somewhat sympathize with the oil and gas industry's arguments regarding their mineral rights; however, the public also has a legitimate and compelling interest for its Forests to be protected from unnecessary, erosive, and neglectful practices.

Generally, I support these rules and they are a good start. I think the following should be included in these rules:

7/26/2007

- Minimum use of gravel
- Drillers must publish the locations of proposed gas wells and access roads in State Forests in a local newspaper more than 60 days in advance.
- State Forests must take comments from the public on how the State Forests should comment as the surface owner on the Driller's applications for well permits from the DEP's Office of Oil and Gas.
- State Forests can require proposed well and road locations to be moved to accommodate recreational use, natural resources and other values.
- State Forests can order the Drillers' operations suspended during inclement weather

If the oil and gas industry would heed these requirements and keep open communication with superintendents and user groups, these rules could work with only intermittent inconveniences to drillers, Forest staff and user groups.

Thank-you

Signed

Doug Atkins
112 Mallory Lane
South Charleston, WV 25309

West Virginia Highlands Conservancy
P.O. Box 306 Charleston, WV 25321

July 25, 2007

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Bldg. 3, Rm. 714, Capitol Complex
1900 Kanawha Blvd. East
Charleston, WV 25305-0662 BY email: parks@wvdnr.gov

RE: Oil & Gas Drilling in State Forests: Proposed Rule 58CSR35

Dear Mr. Caplinger,

Please accept these comments on behalf of the 1,700 members of the West Virginia Highlands Conservancy who live, work and/or play in the natural areas of West Virginia – especially those who routinely enjoy the beauty and serenity our state forests provide.

Our concerns about the impact of timbering in Kumbrabow State Forest in the late 1980's are well documented, as is our involvement in the early 1990's revision of the state forest plans for our public forests throughout the state. The recent desecration of the Kanawha State Forest caused by the irresponsible actions of oil and gas producers has rekindled our concerns for the wellbeing of all these forests.

We are grateful for the 2007 legislation that should prevent similar degradation during the drilling and maintenance of oil and or gas wells in our public forests. And we fully support the proposed Legislative Rule 58CSR35 as filed with the Secretary of State's Office on June 28, 2007.

The public notice and opportunity to comment to the Division (DNR) about proposed drilling sites within the forests are welcome provisions. So too are the notice requirement prior to road maintenance and the requirement that drillers must meet with the State Forest personnel before filing for the Department of Environmental Protection (DEP) permit. Staffing limitations of all our state agencies almost demand outreach to users of the forests for assistance in protecting these valuable public resources. Those users and forest personnel are the best sources of information about trails and other features of the forest that should be protected to accommodate the multiple uses and unique features of the public lands.

We appreciate the inclusion of specific requirements for construction and maintenance of access roads since we have seen that the voluntary soil and erosion control measures set out in the Field Manual of the DEP Office of Oil & Gas have been inadequate.

It is no secret that the West Virginia Highlands Conservancy would prefer that sediment control measures were required at all drilling sites whether on public or private lands.

However, in lieu of those sweeping improvements, we are pleased to see, and fully support the requirements in §58-35-7 through 11 that set forth conditions that are additions to and supplement the Field Manual for planning, construction, reclamation, revegetation and maintenance. These measures are essential for maintaining the needed balance of the rights of both drillers and other users of the forests.

We have one additional recommendation: the revegetation section (§58-35-10) should be rewritten to require the use of only native seeds and grasses.

Thank you for the opportunity to comment.

Sincerely,

Hugh Rogers
President

Bob Beanblossom

From: West Virginia State Parks
Sent: Thursday, July 26, 2007 3:51 PM
To: Ken Caplinger
Subject: FW: oil and gas comments -

From: Sally Snyder [mailto:priusowner01@gmail.com]
Sent: Thu 7/26/2007 8:57 AM
To: West Virginia State Parks
Subject: oil and gas comments -

TO WHOM IT MAY CONCERN:

I am concerned about the abuses of oil and gas drillers in State Forests because altered terrain as a result of a drilling operation is not visually appealing to the individuals who use this land. Also as a result of these drilling programs the environment overall suffers from degradation.

The rule changes as proposed are very good, however, there needs to be a rule change which pertains to how close (some oil and gas developers are lobbying for changes for so called deep wells) well locations can be permitted.

Also, there needs to be provisions which mandate that areas where drilling/roads occur be replanted with native plants not less beneficial grasses, which are cheap, and often contain invasive species of no benefit to the land and a detriment to the forest.

Another factor which requires consideration should be the animals and plants which inhabit property before any construction of any well access road or location can be made.

I would appreciate knowing how you intend to approach these changes to the existing rules and would appreciate being kept up to date on the progress.

Sincerely,

Sally R. Snyder
priusowner01@gmail.com
304 565 3065

7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Thursday, July 26, 2007 3:50 PM
To: Ken Caplinger
Subject: FW: Proposed Rules for State Forest Drilling

From: John Snyder [mailto:snyder.je@gmail.com]
Sent: Thu 7/26/2007 9:04 AM
To: West Virginia State Parks
Subject: Proposed Rules for State Forest Drilling

I commend the DNR for the extensive ness of the proposed rule and have many positive thouhgts about hoew it will preserve the State Forests as we now see them.

I would like to see the well sites revegitated with native plants since after the well is drilled and put in production, the well structure itself occupies only a small part of the area cleared forthe actual drilling and completion of the well.

Also I think that WVDNR should address well spacing, as their are proposals before The West Virginia Oil and Gas Conservation Commission that would reduce well spacing from 3000 feet to 1000 feet to allow drilling and production in the Marcellus Shale, and I believe that there are parts if not all of several State Forests within the boundaries of the proposed Special Field Rules.

Sincerely Yours,

John Snyder
921 Little Pigeon Road
Pigeon, WV 25164-9443
304-565-3065

Bob Beanblossom

From: West Virginia State Parks
Sent: Thursday, July 26, 2007 3:50 PM
To: Ken Caplinger
Subject: FW: DNR rules for drilling

From: martha hopper [mailto:marthachopper@yahoo.com]
Sent: Thu 7/26/2007 10:13 AM
To: West Virginia State Parks
Subject: DNR rules for drilling

My husband and I are very happy with the new law that allows the state to protect our state forests from drilling. Our three children grew up frequently visiting WV's state parks and forests and all have a true appreciation for nature's beauty. I plan to share this valuable resource with my grandchildren, especially in Kanawha State Forest.

It sickened us to see the devastation created by the gas drillers in KSF and we applaud the new ruling to restrict future impact. However, we also hope that the re-vegetation will be done with native plants and not with non-natives which can be devastating to the natural plants. We are already spending much time and energy trying to eradicate invasives, so why create more problems in that area.

We also feel a full inventory of the animals and plants should be done before the construction of any well site or well road. Again, this will help to maintain the balanced diversity that is present in our beautiful forests. We have set these lands aside to protect them so future generations can enjoy them. Let's continue working to keep the forests so that children one hundred years from now will see them exactly as we see them today.

Thank you for your time.
Martha and Tom Hopper

Sick sense of humor? Visit Yahoo! TV's [Comedy with an Edge](#) to see what's on, when.

Bob Beanblossom

From: Ken Caplinger
Sent: Thursday, July 26, 2007 3:49 PM
To: Bob Beanblossom
Subject: FW: Proposed Rule State Forest

Another comment for your collection

-----Original Message-----

From: West Virginia State Parks
Sent: Thursday, July 26, 2007 3:48 PM
To: Ken Caplinger
Subject: FW: Proposed Rule State Forest

From: Barbara Bayes [mailto:barbhelen_bayes@yahoo.com]
Sent: Thu 7/26/2007 3:04 PM
To: West Virginia State Parks
Subject: Proposed Rule State Forest

I live on a farm in Lincoln County. Every water well on my road is ruined because of gas wells. In the 21 years I've been there, two new wells have been dug within 200-300 yards from my pond. The pond stays muddy for three or four years afterward. Always the gas companies say it has nothing to do with our deep wells(including one 1/2 mile deep) . That is the epitome of gas companies honesty. They will abuse our State Forests. They will compromise our water tables and do everything on the cheap because money is there bottom line.

I agree with this statement: The proposed rule greatly improves the protections that all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road."

Thank you for your attention to this matter;

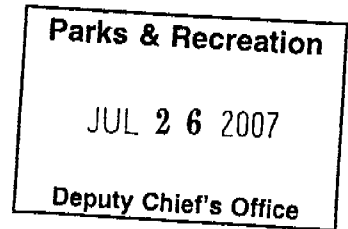
Barbara Bayes
Rt 1 Box 105c
Alum Creek, WV 25003

Barbara Bayes
552-2350

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7/26/2007

July 26, 2007



Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714
Capitol Complex
1900 Kanawha Boulevard, East
Charleston, WV 25305-0662

Subject: Proposed Rules for Drilling in State Forests

Dear Mr. Caplinger,

Thank you for the opportunity to comment on the proposed rules regarding oil and gas drilling in state forests. I strongly support the new rules, which will help to minimize the environmental damage from drilling activities, and I greatly appreciate the efforts of your agency to address this significant issue. I also have a few suggestions that I believe would improve the rules in important ways.

As human activities continue to relentlessly destroy and degrade natural habitats, the value of our public lands grows ever larger. Kanawha State Forest (KSF), which I use frequently, is an excellent example. Its 9,300 acres of forested land, located close to the urban areas of the Kanawha Valley, is a tremendous asset for recreation, water quality, conservation of diverse flora and fauna, nature education, and spiritual enrichment.

I've been involved in several activities that have helped me to clearly understand the ecological importance of KSF. Our Handlan Chapter of the Brooks Bird Club has found 18 species of neotropical warblers nesting at KSF, which is an impressive total. We find far more birding activity at KSF – both in terms of species diversity and numbers of individual birds – than we do in other areas of the Kanawha Valley, where the forest has been more fragmented and degraded by human activity. When Rob Tallman, DNR's ornithologist, did his master's research at KSF, he found an exceptionally high number of nesting Cerulean Warblers, a species whose declining population in other parts of its breeding range continues to be a cause of concern. For another example, when our Kanawha Valley Master Naturalists group did our Aquatic Habitats fieldwork at KSF, led by DNR biologist Dan Cincotta, we found 17 species of fish while sampling a short stretch of Davis Creek, as well as a collection of macroinvertebrate species that are strongly correlated with good water quality. I could give other examples using salamanders, wildflowers, etc., but my point is that this large, relatively continuous tract of mature Appalachian forest is vitally important for preserving both species diversity and ecological integrity. And with timbering no longer permitted within KSF, it has the potential to become an even more special place, as it slowly returns to being that rarest of habitats--a primeval, climax, old-growth forest.

Yet even though I'm praising the ecological qualities of KSF, it's obvious that gas drilling, along with the road building associated with it, is having a significant negative impact on the forest. And with the demand for energy and the prices paid for it both running high, the pace and impact of drilling activity seems to be growing. That's why this is definitely the right time to promulgate these rules and do all we can to minimize the environmental damage to the forest.

One very important component that needs to be added to these rules is a requirement that native plants be used for reclamation. Gas well roads provide corridors for the introduction and establishment of invasive species, and we should not be aiding and abetting this process by allowing non-native plants to be used for reclamation. The use of native seed mixes will strengthen the forest's resistance against invasive species and help protect its ecological integrity.

Native plants are being utilized for reclamation with increasing frequency on National Forest and National Park lands, as well as on surface mining sites. This is the direction that responsible, sustainable land management is headed, and now is the time to establish this important precedent by requiring the use of native plants and seed mixes within State Forests.

If the hangup is that the DNR doesn't believe we have enough scientific studies demonstrating which plants and seeds will produce the best results in various conditions, or if there is concern that there isn't a sufficient supply of native plants and seeds to meet the demand, then these concerns need to be addressed directly, instead of being used as excuses to continue clinging to outdated management practices.

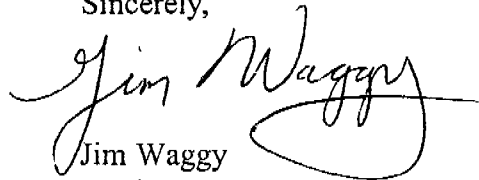
If you believe more studies are needed, then why not have the oil and gas companies do the studies? They are doing the labor of reclamation anyway, so you could offer some type of incentive to them, or work in conjunction with them, to turn these standard reclamation projects into experimental research projects.

Another possibility would be to collect a flat fee from the companies for operating on public lands, or perhaps collect a small, ongoing royalty payment, and dedicate this money to research projects that would produce the hard data that would be useful to DNR, the companies, and the general public. These corporations are causing the disturbances, so it's entirely reasonable for them to underwrite the search for solutions. This money could also be used to generate comprehensive biological surveys of the State Forests. Such surveys would be invaluable tools to help shape wise management decisions. The money could also be used to purchase native seeds, which could help establish a consistent demand and encourage more entrepreneurs to become native seed suppliers. All sides would benefit from these actions.

So, in summary, I appreciate your efforts to strengthen protections for our State Forests. I support the rules you've proposed, but I believe this opportunity to mandate the use of native plants for reclamation should not be missed. I believe there is already adequate information and sufficient seed supplies available to proceed with this requirement. If your judgement is different, then I ask you to be a proactive force for generating additional information and for encouraging the development of additional native seed sources.

Thank you for reading and considering my comments, and I will continue following this process with great interest.

Sincerely,

A handwritten signature in cursive script that reads "Jim Waggy". The signature is fluid and stylized, with a large loop at the end of the last name.

Jim Waggy

President, Handlan Chapter of the Brooks Bird Club
Coordinator, Kanawha Valley Master Naturalists
President, Friends of Coonskin
Board Member, Kanawha State Forest Coalition

4304 Virginia Avenue SE
Charleston, WV 25304
truthseeker23@hotmail.com
304-925-6379

Bob Beanblossom

From: West Virginia State Parks

Sent: Wednesday, July 25, 2007 8:52 AM

To: Ken Caplinger

Subject: FW: Proposed Rules for conditions upon which oil and gas operators may access forest

From: Ron Cockeram [mailto:rsaturn97@hotmail.com]

Sent: Tue 7/24/2007 7:46 PM

To: West Virginia State Parks

Subject: Proposed Rules for conditions upon which oil and gas operators may access forest

Dear Mr. Caplinger:

I enjoy hiking and biking in Kanawha State Forest. In the last few months, I have noticed that oil and gas companies have been damaging our forest unnecessarily. There should be a fair balance between industry and public use of land. Please support legislative to protect our forest. Let's look at the future generation of people who will enjoy our forest long after we are gone.

7/25/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 8:53 AM
To: Ken Caplinger
Subject: FW: New Oil and Gas Proposed Rules and Regulations

From: Matthew Burns [mailto:kwahaddi@yahoo.com]
Sent: Tue 7/24/2007 6:37 PM
To: West Virginia State Parks
Subject: New Oil and Gas Proposed Rules and Regulations

Dear Mr. Caplinger,

I am concerned about the abuses in State Forests by unregulated or minimally regulated oil and gas drilling operations. The proposed Oil and Gas Drilling rule that you are currently accepting public comment greatly improves the protections that Kanawha State Forest and all State Forests will receive. I support all of the new requirements that the Department of Natural Resources has in the proposed regulations. However, I would like to add that all re-vegetation should be done with native plants, and not with non-native plant species. Also, it would be a good management practice to conduct a full inventory of all wildlife and plant species in any proposed permit area prior to any new road or operating site being approved.

As a wildlife management professional, I urge you to fully support the newly proposed rules and regulations for Oil and Gas drilling operations that are operating in all State Forests of West Virginia.

Thank you,

Matthew Burns, B.S. Wildlife and Fisheries Resources Management
700 Pearl Drive, Unit D
Charleston, WV 25311
kwahaddi@yahoo.com

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Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 8:53 AM
To: Ken Caplinger
Subject: FW: comments on proposed rule for drilling in state forests

From: Gary Zuckett [mailto:garyz@wvcag.org]
Sent: Tue 7/24/2007 4:31 PM
To: West Virginia State Parks
Subject: comments on proposed rule for drilling in state forests

To: Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section, WV Division of Natural Resources

Dear Mr. Caplinger,

Thank you for the opportunity for public comment on the new rules for oil and gas drilling in Kanawha State Forest and all other state forests. I generally agree with the proposed rules but would suggest that re-seeding always be done with native seed and a proper inventory of existing vegetation and wildlife be done prior to any disturbance of the original surface estate.

Regards,

Gary Zuckett, Executive Director
WV Citizen Action Group
304-346-5891
www.wvcag.org

7/25/2007

Bob Beanblossom

From: Ken Caplinger
Sent: Tuesday, July 24, 2007 2:31 PM
To: Bob Beanblossom
Subject: FW: Comments

-----Original Message-----

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 2:06 PM
To: Ken Caplinger
Subject: FW: Comments

From: Margaret Janes [mailto:mjanes@hardynet.com]
Sent: Tue 7/24/2007 9:47 AM
To: West Virginia State Parks
Cc: Julian Martin
Subject: Comments

July 24, 2007

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section, Division of Natural Resources
Building 3, Room 714, Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662
parks@wvdnr.gov

Dear Mr. Caplinger:

I am concerned about the abuses of oil and gas drillers in State Forests because West Virginia's special places are being threatened at an alarming rate. I frequently hike in the state forests and want to make sure they are protected in every way possible. The rule greatly improves the protections that Kanawha State Forest and all other state forests will receive. I support and appreciate all of the new requirements that the Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. I also think a full inventory of the animals and plants should be done before the construction of any well site or well road so there is a baseline on which to judge the environmental performance of the activity.

Sincerely,

Margaret Janes
Appalachian Center for the Economy and the Environment
5640 Howards Lick Rd

7/25/2007

Mathias, WV 26812
mjanes@hardynet.com

7/25/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 24, 2007 9:15 AM
To: Ken Caplinger
Subject: FW: Drilling in State Forests

From: Hedda Haning [mailto:haning2@verizon.net]
Sent: Mon 7/23/2007 4:11 PM
To: West Virginia State Parks
Subject: Drilling in State Forests

I am writing to you because I have seen a copy of the proposed rules regarding oil and gas drilling in State Forests. I am particularly concerned that rules do not require mitigation and recovery using native plants. I am extremely aware of how invasive and destructive exotic foreign plants can be. Please insist that only native species be used.

Thank you,
Hedda Haning
1031 Forest Rd
Charleston, WV 25314
304-344-0472

26 July '07

from: Russ Young
5533 Washington Avenue, S.E.
Charleston, West Virginia
25304 925-5668

to: Kenneth K. Caplinger
Acting Chief, Parks & Recreation Section
Division of Natural Resources

Parks & Recreation

JUL 26 2007

Deputy Chief's Office

re: commentary on 58CSR35
Rules for Conditions Upon Which Oil and Gas Operators May Access State Forests

I greatly appreciate the opportunity to submit this commentary.

I was a member of the committee that initiated this process, which then grew into a grassroots movement. I'm grateful for the efforts of EVERYONE. I particularly commend Mr. David McMahon for his invaluable expertise and dedication to this worthy cause.

In the very beginning, there was discussion of pursuing an outright ban on future drilling in Kanawha State Forest, as was previously achieved with timbering. Ultimately, it was decided that would likely be a very difficult, if not hopeless, battle and a more cooperative approach was sought. When the legislation was expanded to include all State Forests, I was apprehensive that it was a move designed to "kill the bill". Others convinced me that the issue was progressing satisfactorily.

I now compliment the DNR for proposing rules which, for the most part, address our concerns. Please don't allow these conditions to be further weakened or diluted by industry interests. In particular, the "daylighting" of roads is totally inappropriate and must be prohibited. Please keep in mind that we are dealing with State FORESTS! There are precious few of them, and they comprise a miniscule fraction of land available for resource extraction. It is entirely reasonable to expect that they deserve a higher order of protection and the most responsible land use practices.

I have suggestions for two additional requirements, both of which are based on the concept of ECOLOGY. Firstly, surveys should be conducted of the Forests in order to fully understand their general ECOLOGY. These should be conducted by ECOLOGISTS, as opposed to "biologists" which -- in our state -- too often serve more as "game wardens". Similar surveys should be conducted specific to sites being disturbed. Secondly, only native seed mixes should be used for reclamation. So-called "wildlife" mixes are not acceptable. There are already over 70 Wildlife Management Areas in West Virginia that employ such non-native mixes to promote "game" creatures that can be legally slaughtered by humans. That is not the purpose of our FORESTS. Arguments against native mixes -- that they are comparatively costly, unavailable, and slower developing -- are not convincing.

It could be said by those who don't have a full appreciation of the big picture, that the current-day lushness of the Forests is a prime example of the Earth's resilience. In fact, the Forests are only in the very early stages of regenerating from devastation by mining, clear-cutting, and other extractions, and many decades of vigilant caretaking will be required before they even begin to resemble their former selves -- the majestic Appalachian forests that existed prior to human exploitation.

Thanks for your time and consideration.

Sincerely,


Russ Young

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 17, 2007 9:21 AM
To: Ken Caplinger
Subject: FW: new rules

From: crockettms@netscape.net [mailto:crockettms@netscape.net]
Sent: Sat 7/14/2007 3:01 PM
To: West Virginia State Parks
Subject: new rules

Dear Ken,

Julian Martin sent me a copy of the rules you proposed for those who mess around for their own profit in our state forests. After what they did in Kanawha State Forest, my home ground - and yours - those people need to be watched.

The rules you propose are fine. Please add these ideas: use native West Virginia plants when doing any reclamation in the forests. And have them inventory the flora and fauna before they start chopping up the land.

I remember the WV DOH plantings by our state highways, and how our Saint Albans Garden Club paid for several acres that looked nice for one year, had non-native plants, and got mowed down by DOH employees before the next year's seeds were set. What a waste.

But I digress, as usual. Anyway, people who mess with public land have to be closely guarded. With DOH it was just stupidity. With people using our public land for profit, it's stupidity and chicanery in lock step.

Thank you for establishing those rules. I hope it works.

Best wishes,
Bunny

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Parks & Recreation

JUL 25 2007

Deputy Chief's Office

west virginia department of environmental protection

Office of Oil and Gas
601 57th Street
Charleston, WV 25304
(304) 926-0450
fax (304) 926-0452

Joe Manchin III, Governor
Stephanie R. Timmermeyer, Cabinet Secretary
www.wvdep.org

July 25, 2007

Mr. Kenneth K. Caplinger
Acting Chief
Parks and Recreation Section
Division of Natural Resources
Capitol Complex, Bldg. 3, Room 714
Charleston, WV 25305-0662

Re: DNR Rule 58CSR35

Dear Mr. Caplinger:

The Office of Oil and Gas (OOG) has reviewed the proposed subject rule and submits the following comments for your consideration:

1) As you may know, the OOG's Erosion and Sediment Control Field Manual (manual) was developed several years ago as a collaborative effort by various groups including the DNR and has served us well over that period of time. When the BMP's are properly followed, erosion can be minimized and consequently the likelihood of detrimental environmental impacts can be significantly reduced. To this end, we believe that these BMP's are more than just a starting point for environmental protection associated with surface disturbance. However, we also recognize that for reasons beyond environmental protection, the DNR has identified the need to establish additional requirements for oil and gas well activity in West Virginia's state forests.

The OOG believes that an MOU or other appropriate agreement should be developed and executed between the DNR and the WVDEP, Office of Oil and Gas that provides an explanation as to the authority and responsibilities of each of these agencies in regard to oil and gas well activity in the state forests. We believe that such an agreement would be beneficial in assisting both agencies and the regulated community in meeting the obligations we each possess.

2) As we have reviewed the proposed rule we have identified two provisions that could lead to a negative environmental result. Under the requirements in section 8.9, broad based dips may be required to be spaced so close together that it could affect their installation and result in less water and sediment control. We believe that the reduction in spacing to 60% of the manual's requirement is too severe.

Promoting a healthy environment.

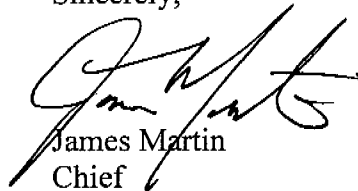
Section 9.2 prohibits bulldozer tracking on slopes for seed bed preparation. Our experience has shown that such tracking can be beneficial for seed bed preparation, particularly on cut slopes, and should not be prohibited.

3) We have identified three references in the rule to sections of the manual which appear to be incorrect. In section 10.2, the manual reference should be IV.A.1. instead of IV.1. The reference in section 11.1 should refer to section V. of the manual instead of section I. In section 11.3 the manual reference should be V.B.2. instead of V.A.2.

4) Section 11.7. may need re-worded for clarification. We believe the intent of the section is to require fiber matting and rock if rock alone does not prevent puddling in road surfaces.

Thank you in advance for your consideration of these comments. At the appropriate time, if you would like to discuss further, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "James Martin", is written over the printed name and title.

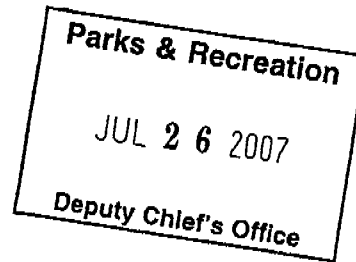
James Martin
Chief

To: Bob B
FYE/KAC
7/26/07

WEST VIRGINIA NATIVE PLANT SOCIETY
6128 Gideon Rd.
Huntington, WV 25705
304-736-3287
gibbins@verizon.net

July 25, 2007

Kenneth Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714, Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662



Dear Mr. Caplinger:

I am writing on behalf of the West Virginia Native Plant Society membership to support the proposed regulations for oil and gas well drilling and road construction/maintenance in West Virginia's state forests. We believe the new rules represent a major step forward in protecting the special ecological and recreational environments of our state forests. We commend you and the DNR for this effort and welcome the opportunity to provide input into the development of the final document.

We recommend adding requirements to ensure the seeding of plant species native to West Virginia in the reclamation of areas disturbed or damaged by well sites or access roads. This is vital to prevent the introduction and spread of invasive species which are destructive to West Virginia's long term biodiversity and health of wildlife populations. There are several sources in adjacent states of native seed mixes that would be effective in erosion control as well as promoting the sustainability of the forest ecosystem.

We also urge a requirement for an inventory of plant species and wildlife habitats, especially with respect to rare species that might be found in proposed well sites. While consulting a list of previously identified threatened or endangered species is also highly recommended, a current survey further assures no adverse impacts to rare plant and animal species would occur.

A thorough survey conducted by field botanists and/or biologists would allow environmentally sound decisions regarding location of new drilling projects and potential mitigation by the developer for damages to the natural forest community.

Once again we are grateful for the advances in preserving the integrity of our state forests delineated in the proposed rules. Please consider our comments in formulating the final draft and advise us if further consultation would be helpful in this process.

Sincerely,

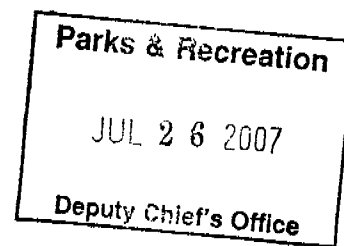
A handwritten signature in cursive script that reads "Helen Gibbins".

Helen Gibbins, Recording Secretary
West Virginia Native Plant Society

To: Bob
Fut
Kuc
7/26/07

NORTHSTAR VENTURES
DIVERSIFIED APPALACHIAN INVESTMENTS

July 25, 2007



Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Capitol Complex, Bldg. 3, Room 714
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Dear Chief Caplinger,

I am writing these comments in opposition to the Series 35, Rules for Notice Regarding Oil and Gas Well Work, New Road Construction, and Road Maintenance in State Forest as proposed by the Division of Natural Resources. Northstar Ventures is a West Virginia partnership that owns a portion of the oil and gas property beneath Kanawha State Forest. We purchased this property in 2001 and have dutifully paid property taxes on it since that time.

Trying to comply with these rules will greatly increase the cost of normal drilling and production operations. Because these additional burdens will make it so much more costly and difficult to operate on my property, my lessees will avoid development in favor of nearby lands that are not subject to these rules. It is obvious that the author of these rules intends to eliminate drilling and production operations within state forests. These restrictions and limits on access are the same thing as taking my property.

As detailed in the proposed rules, a significant additional burden is being placed on those who drill and operate oil and gas wells within all state forests. For most of the year, these regulations deny the access needed to drill for, and even to properly produce, my oil and gas. The proposed rules limit development activities to a three-month window. This means that my lessees and I are being denied access to my own property for 75% of the year. This is an outrage.

I urge you to please reject these rules. My lessees need to be able to continue to produce my minerals without the threat of burdensome rules that will force them to look elsewhere for opportunities.

Sincerely,

A handwritten signature in cursive script, appearing to read "Douglas C. Malcolm".

Douglas C. Malcolm
Partner



KANAWHA VALLEY HISTORICAL & PRESERVATION SOCIETY,

Inc.

507 Peoples Building, Charleston, WV 25301

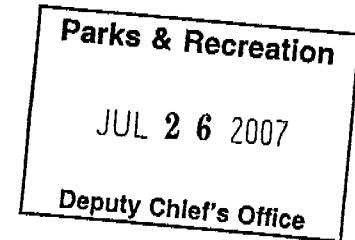
POB 2283

Charleston, WV 25328

(304) 342-7676

hbattle1@verizon.net

*TO: BOB
Bj/kc 7/26/07
FHI*
Kenneth Caplinger, Acting Chief
Parks & Recreation Section
Division of Natural Resources.
Room 714, Bldg 3, Capitol Complex
1900 Kanawha Blvd, E
Charleston, WV 25305-0662



Mr. Caplinger –

This is in response to the request for public comment on proposed changes in the rules governing oil and natural gas production in West Virginia's State Forests.

Additional requirements must be added in regard to the protection of historic resources as well as environmental. We suggest the following requirements, couched in the style used in Rick Steelhammer's Gazette article of July 24, 2007:

"Change well site, access roads and collection line locations if readily apparent historic structures or artifacts will be adversely impacted."

"Professionally document historic structures or artifacts uncovered in the construction process if adverse impact is unavoidable."

On the basis of impracticality, we do not recommend the Federal "Section 106" Cultural Resource Survey requirements which apply to certain other construction activities such as coal mining.

Thank you for the opportunity to comment on this important matter. The Kanawha Valley Historical & Preservation Society, Inc. is a 36-year-old organization of around 420 members who have an active and passionate interest in historic preservation and education.

Sincerely,

Henry W Battle

Henry W. Battle, President

Bob Beanblossom

From: Ken Caplinger
Sent: Thursday, July 26, 2007 9:32 AM
To: Bob Beanblossom
Subject: FW: Drilling

Did you get this one earlier? I may have missed sending it.

-----Original Message-----

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 8:51 AM
To: Ken Caplinger
Subject: FW: Drilling

From: wess harris [mailto:flatridge@wirefire.com]
Sent: Wed 7/25/2007 7:31 AM
To: West Virginia State Parks
Subject: Drilling

Staffperson/deciders:

We use gas for cooking and have both trucks and tractors here on our farm. The past year has seen a surge in drilling for gas in our area. Since we use the product, seems reasonable to put up with the hassle involved to get it to us. That said, to permit drilling in state or national forests is simply NUTS. We must risk life and limb just to get to town as hundreds of trucks travel our not quite one lane road each week. The noise is 24/7 and travels for many miles. Roads are hacked through woods and across streams without regard for environmental or aesthetic consequences. It may be naive but the REASON to have state controlled lands is at the very least so we can have a way to know what some semblance of a natural environment entails for future generations. The greed of some is beyond belief. As a taxpayer, I pay you to protect what we commonly own. Do your job.

Sincerely,
Wess Harris
229 Birtrice Rd.
Gay,
WV 25244

7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:51 PM
To: Ken Caplinger
Subject: FW: Drilling Rules

From: Michael & Carrie Kline [mailto:kline@folktalk.org]
Sent: Wed 7/25/2007 11:56 AM
To: West Virginia State Parks
Subject: Drilling Rules

Dear Mr. **Caplinger**,

I am concerned about the abuses of oil and gas drillers in State Forests. The rule greatly improves the protections that all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road.

Thank you from the bottom of my heart for tending The Commons.

Sincerely,
Carrie N. Kline
Michael and Carrie Nobel Kline
Talking Across the Lines, LLC
www.folktalk.org
kline@folktalk.org
114 Boundary Ave.
Elkins, WV 26241
(304) 636-5444

7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:51 PM
To: Ken Caplinger
Subject: FW: Mineral Use in State Forests

From: Margaret Chapman [mailto:margaret.chapman7@verizon.net]
Sent: Wed 7/25/2007 11:19 AM
To: West Virginia State Parks
Subject: Mineral Use in State Forests

To Whom It May Concern:

I have seen the devastation inflicted upon Kanawha State Forest in recent months and am therefore concerned about the abuses of oil and gas drillers in all of our great state forests. The new DNR rule greatly improves the protections that all state forests need and deserve and I support all of the new proposed requirements. However, I think that all re-vegetation should be done with *native* plants, and *not* with non-native seeds. A full inventory of the animals and plants should be conducted before the construction of any well site or well road to maintain the dignity, beauty and health of our state forests.

Thank you for your consideration.

Sincerely,

Margaret Chapman

1525 Bridge Rd
Chas, WV 25314

7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:51 PM
To: Ken Caplinger
Subject: FW: I support new DEP forest rules

From: eleanor [mailto:ehspohr@mountain.net]
Sent: Wed 7/25/2007 11:33 AM
To: West Virginia State Parks
Subject: I support new DEP forest rules

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Charleston, West Virginia

Dear Mr. Caplinger,

I am a frequent visitor to the hiking trails in Kanawha State forest and my family enjoys other forests in the state. I was greatly distressed by the excessive destruction I saw in Kanawha State Forest during the process of constructing gas wells and their access roads. I am interested in protecting our wonderful state forests from such abuses in the future.

I strongly support the requirements set out in the new DNR rules and I think they provide much needed protections. I am happy to see that there are provisions for notification and public comments, and for drillers to meet with state forest personnel before the filing for DEP permits. Also having drillers be aware of forest trails and the other features when proposing road and drilling sites, and allowing for forests to require changes to accommodate recreational use, natural resources, etc, protects the public's interest. The provisions covering the actual road construction seem to me to be common sense after the mess I saw following the construction of the well site roads last fall.

I would like to see the rules expanded to add further provision protecting the diverse animal and native plant species found in our forests, such as provisions that a full inventory of animals and plants species be considered before road and drilling site construction begins and that, after construction, reseedling be done with native plants.

But, once again, I strongly support the new rules and the protections they provide.

Sincerely,

Eleanor Spohr
1624 Kenwood Rd.
Charleston, WV
(304) 344-3620

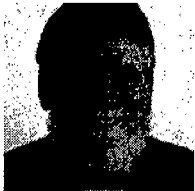
7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:50 PM
To: Ken Caplinger
Subject: FW: Letter re: re-vegetation and the needed inventory of West Virginia's animals and plants

From: Richard Cobb Sr. [mailto:richardcobbsr@comcast.net]
Sent: Wed 7/25/2007 11:42 AM
To: West Virginia State Parks
Subject: Letter re: re-vegetation and the needed inventory of West Virginia's animals and plants

I am concerned about the abuses inflicted by oil and gas drillers in State Forests, because I am interested in the long-term future of our forests and the protection of the natural beauty of our state. Please protect our states environment and its forest animals, birds and creatures. The rule greatly improves the protections that all State Forests should receive. I support all of the positive new requirements that the WV Department of Natural Resources has in the rule. However, I think that all re-vegetation should be with native plants, and with seeds that are not native to West Virginia. Finally, a full inventory of the state's animals and plants should be undertaken prior to the construction of any well site, or well road. Thank you for all that you do for our citizens.



C. Richard Cobb, Sr.
Neighborhood Advocate
304-523-7902 (Home)
304-638-6882 (Cell)

"The welfare of the people is the highest law" – Cicero

<http://media.herald-dispatch.com/blog/cobb/>
richardcobbsr@comcast.net
www.adoptYOURblock.com

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:50 PM
To: Ken Caplinger
Subject: FW:

From: Bren Pomponio [mailto:Bren@msjlaw.org]
Sent: Wed 7/25/2007 11:47 AM
To: West Virginia State Parks
Subject:

I am concerned about the abuses of oil and gas drillers in State Forests because I like to take my children to the forest on a regular basis. The kids enjoy playing in the streams, hunting crawdads. The rule greatly improves the protections that all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule. However, I think that all re-vegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road.

Thank you.

Bren J. Pomponio
Mountain State Justice, Inc.
1031 Quarrier Street, Suite 200
Charleston, WV 25301
304.344.5565
bren@msjlaw.org

7/26/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:50 PM
To: Ken Caplinger
Subject: FW: Gas & Oil production in State Forests

From: henry battle [mailto:hbattle1@verizon.net]
Sent: Wed 7/25/2007 11:48 AM
To: West Virginia State Parks
Cc: Henry Battle; Karen Carper; Billy Joe Peyton; Richard Conway; Mary Alice Hodgson; John Wehrle; John Jarrett; John Blair; Joe Wollenberger; David Marshall
Subject: Gas & Oil production in State Forests

Mr. Caplinger - Attached is a letter form the Kanawha Valley Historical & Preservation Society in regard to the proposed changes in requirements governing oil & gas production in State Forests. A 'hard copy' will follow. Thank you for attending to this matter.

Henry Battle, President
KVH&PS

7/26/2007

KANAWHA VALLEY HISTORICAL & PRESERVATION SOCIETY,

Inc. 507 Peoples Building, Charleston, WV 25301
POB 2283 * Charleston, WV 25328 * (304) 342-7676 * hbattle1@verizon.net

Kenneth Caplinger, Acting Chief
Parks & Recreation Section
Division of Natural Resources.
Room 714, Bldg 3, Capitol Complex
1900 Kanawha Blvd, E
Charleston, WV 25305-0662

Mr. Caplinger –

This is in response to the request for public comment on proposed changes in the rules governing oil and natural gas production in West Virginia's State Forests.

Additional requirements must be added in regard to the protection of historic resources as well as environmental. We suggest the following requirements, couched in the style used in Rick Steelhammer's Gazette article of July 24, 2007:

"Change well site, access roads and collection line locations if readily apparent historic structures or artifacts will be adversely impacted."

"Professionally document historic structures or artifacts uncovered in the construction process if adverse impact is unavoidable."

On the basis of impracticality, we do not recommend the Federal "Section 106" Cultural Resource Survey requirements which apply to certain other construction activities such as coal mining.

Thank you for the opportunity to comment on this important matter. The Kanawha Valley Historical & Preservation Society, Inc. is a 36-year-old organization of around 420 members who have an active and passionate interest in historic preservation and education.

Sincerely,

Henry W Battle

Henry W. Battle, President

Bob Beanblossom

From: West Virginia State Parks
Sent: Wednesday, July 25, 2007 2:50 PM
To: Ken Caplinger
Subject: FW: proposed forest rule

From: GinaDCG@att.net [mailto:GinaDCG@att.net]
Sent: Wed 7/25/2007 11:55 AM
To: West Virginia State Parks
Cc: Julian Martin
Subject: proposed forest rule

I miss Wildcat Trail -- and I can never have it back. Equitable Energy took it away from me when they built their "wildcat" road. Without permission. Without notification. In gross violation of agreements.

And their consequences? A little mitigation money (which went, by the way, to pave a portion of Kanawha State Forest drive up 4 Mile Mountain. I USED to bike up and down 4 Mile Mountain on this road -- but not any more. Ever since it was paved the NASCAR fans from Boone County zoom by too quickly for me, the middle aged mom, to feel safe as I slowly pedal up the mountain. So -- I lost one the end of one of my favorite hiking trails, and to make it up to me, I then lost the end of one of my favorite bike rides.)

Equitable Energy paid scant attention to the obvious erosion problems engendered by their "swath of devastation." They planted invasive grasses in a place that is supposed to allow citizens access to natural, native places.

Gas companies have a well established history of treating OUR Kanawha State Forest as if it were their private gas reserve. The original Boundary Road in the Forest has become a veritable maze of crisscrossing dead end roads and loops. Forest management cut Boundary Road years ago as an aid to future fire fighting. A sensible precaution that. And, AS a sensible fire cut, Boundary Road was placed on the ridge line to slow the ability of forest fires to spread. But the gas companies did not like having to drive up this or that knob on the ridge only to come down on the other side, so, over the decades, they have cut these "detours" around Boundary Road, which has resulted in the bewildering maze that now confronts hikers and bikers.

If one intends to follow Boundary Road from, say the top of Beech Glen Trail to Polly Hollow one must make sure that one stays on the "real" Boundary Road, as only the "real" road has a signed intersection with Polly Hollow. It is very easy, even for seasoned hikers, to make a wrong turn along one of the gas company's "bypass" roads or wander onto yet another unmarked gas well access road, and waste a lot of time and steps -- a waste of time which can be ill-advised in the late afternoon or if a hiker or biker has health or mechanical problems and is seeking the fastest way off the mountain.

Last winter I had been hiking with my daughter. We came down Polly Hollow to meet a gas company worker who earnestly asked us if we had been "up there," (here he pointed to a gas access road that circled up the hill just east of Polly Hollow.) When we told him we had not, he said, "Good. We haven't sealed that well yet and we don't want anyone to breathe any of that poisoned gas."

My daughter, who had been attending school in Massachusetts, was appalled. "Mother! You used to tell me that companies and businesses got away with anything and everything including murder in Appalachia -- particularly West Virginia -- but I never really believed you until right now. After living up north for these years I can say without a doubt that companies would never behave so irresponsibly up there! Look! If it is dangerous to hike up there they should at least post a sign! There is no sign! If this were any other state, and a company suspected a gas well was a bit leaky, they would have crews out here round the clock until they had it fixed!"

"Yes, well, daughter, remember this is West Virginia. We're just dumb hillbillies and if we had hiked up there and succumbed to the toxic fumes it would have been our fault for being someplace we shouldn't have been."

I want this crap to stop! When are we West Virginians going to stop letting businesses and companies walk all over us in the

7/26/2007

name of improving our economy?

Quality of life issues are more important to the salability of our economy then giving gas companies permission to abuse our public lands and then only suffer a moderate hand slap as consequence!

I support these rules! And I'm sure Equitable and other gas companies do not. Well, if they don't want to live under regulations they don't like then maybe they will learn to behave more responsibly next time.

I want the top of Wildcat Tail back -- and I can't have it. Enactment of these rules will at least make it more likely that the ridge along Wildcat Trail will eventually look similar to the way it once did -- not in my lifetime, but someday. Use of non-native replacement plants would, as it always has, turn out to be a wretched idea. (Other wretched importations that seemed a good idea at the time: kudzu, multiflora rose, gypsy moth. Our environment can't take too many more of these one-time 'good ideas'.)

Let's not lose any more beloved trails. Enact these common sense responses to gas companies repeated, outrageous excesses! If they need to build a road, let them go through a process to make sure their plans are necessary and do not constitute a "taking" from the public. Places in Kanawha State Forest that I once regularly enjoyed have been unfairly and illegally "taken" from me. And if future construction in state forests is approved, after appropriate direction from state agencies and the public, then let us enact rules to ensure a sensible and complete repair and mitigation process.

Thank you for attending to this matter,

Gina Griffith
GinaDCG@att.net
2718 Lakeview Dr.
St. Albans, WV 25177

July 24, 2007



Mrs. Debra Harper
228 Cochran Circle
Nitro, WV 25143

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714
Capitol Complex
1900 Kanawha Boulevard, East
Charleston, WV 25305 0662

Dear Mr. Caplinger:

My family has lived in West Virginia for many generations. When I was a little girl and my grandparents from Parkersburg came to visit, we regularly went to Kanawha State Forest. My children and I played, hiked, and biked there. It will be one of the first places my granddaughter learns about nature. My husband and I visit and camp in the State Parks and near the forests. The forests of West Virginia have a special place in my heart and life. Please keep them from harm.

I think the new Rules will help, but make sure the wild plants and animals that depend on the Forests are protected too. Please inventory those plants and animals before roads are built and the wells are drilled. Also please sow native seeds and native plants to fix the damage and feed the animals.

Thank you.

Sincerely yours,

A handwritten signature in cursive script that reads "Debra Harper".

Debra Harper

Bob

DAVID B. McMAHON • ATTORNEY AT LAW

1624 Kenwood Road, Charleston, West Virginia 25314

Phone 304-344-3620 • Day 304-415-4288 • Fax 810-958-6143

e-mail wvdavid@access.mountain.net

July 26, 2007

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714
Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662.

Parks & Recreation

JUL 27 2007

Deputy Chief's Office

Re: Public Comment on Rule on Conditions upon Which Oil and Gas Operators May
Access State Forests.

Dear Sir:

I am writing to comment on the above Rule. Although I am a registered lobbyist for a public interest law firm, I am filing these comments on my own as an individual member of the public. I am a member of the Kanawha State Forest Coalition that got the bill passed by the Legislature that requires these rules. I am also a member of the new West Virginia Surface Owners Rights Organization. While most of the members of both organizations will agree with most of what I have to say, I am, strictly speaking, speaking only for myself. Some of my comment may add documentation of their concerns expressed in separate comments.

General Comments

I want to first generally offer high praise for the proposed rule. Under the common law court cases, drillers are allowed to do what is "fairly necessary" to the surface to explore for and produce their minerals. That is supposed to be a balancing of the rights and interests of the surface and the mineral owner. In fact the drillers have experience, money, lawyers, and most importantly, surprise, on their side. The result is that the scales are not balanced and drillers often do what they want to. Even when the State is the surface owner, this is true. The individual employees of the State have less experience in this, less money and fewer lawyers on their side. And the only existing legal requirement for notice provides only 15 days and results in surprise, and insufficient time to become educated and react appropriately. It is important that the Rule be passed so that the

State's position on what is "fairly necessary" is known and constant for its employees and for the drillers to see.

In addition to the common law "fairly necessary" balancing of interests tests, there is also the State's police power interest in the general well being of the public relating to erosion and sediment control. Since the dust bowl days the states power to regulate agriculture and other surface activities to preserve the soils has been accepted. In West Virginia this is important not just to save the soils, but to keep the rivers and streams from being silted up, as has often happened to the pond and streams of Kanawha State Forest.

West Virginia's expression of this power in the area of oil and gas drilling is a "Field Manual" for the planning, construction and maintenance of oil and gas sites and access roads. However, this is not the same as the surfaced owners right to only have the driller do what is fairly necessary. Particularly in the case of a State Forest, more and different protection is needed. So it is wise that this Rule started with, but built upon, the Department of Environmental Protection, Office of Oil and Gas's "Erosion and Sediment Control Field Manual." Clearly that is a good thing to have, but clearly from what has happened to at least Kanawha State Forest, it is not enough.

The Rule builds upon the Field Manual wisely in many areas.

In addition theses general comments, below I offer specific comments on particular provision of the proposed Rule.

Specific Comments

I am making my specific comments in the order they appear in the proposed rule and will reference the Rule sections to which the comments apply.

2.1.7; 3.1; 4.1 – The fact that proposed locations of future well sites and access roads are part of the public notice requirement is much very appreciated. In particular, the topographic map with approximate proposed locations will be most useful. It is understood that the locations indicated on the topo maps etc. will not be as accurate as a survey at this preliminary stage of planning. However, having an indication of the potential well sites and roads enables the public, many of whom are intimately familiar with the forests, to provide information to the driller and to the State on the impact of the proposed well work.

2.4 – The use of Internet distribution of these notices to those members who have expressed particular interest is much appreciated, cheap and effective.

4.1 – It is regrettable that the statute does not give more lead time notice to the public of maintenance.

4.1.6 – One of the biggest problems in the Forest is the inappropriate road maintenance techniques. This provision that requires revealing to the Forest Supervisor the instructions given to the dozer operator by the oil and gas driller is very beneficial. It will require some actual attention and planning to maintenance by driller supervisors, and reduce uneducated damage by bull dozer operators not schooled in appropriate maintenance techniques. It allows Forest personnel to make sure the bull dozer operator is properly instructed. More will be said about particular techniques later.

5.2.4 – The driller should also reimburse the State for time spent by its employees dealing with problems created by the driller.

7.3; 7.4 – It would be preferable to require the driller to do an entire biological inventory of the area to be disturbed. However, with these provisions at least the driller has to look at known sources of information. And the public comment on the published locations can add to what is known by the Forest and the driller before making final site and road location decisions.

7.3.7 – This is a good practical application of the “fairly necessary” legal doctrine of the State’s rights as a surface owner.

7.7 – The appropriate drainage control for roads with a 7% grade or less should be based on outsloping and not insloping. Insloping roads requires a drainage ditch on the highwall side of the road. The space needed for the drainage ditch increases the total width of the disturbed area for the road. Increased width and disturbance is not good. The drainage ditch must itself drain somewhere, so culverts from the drainage ditch under the road must be installed. This adds expense for the driller, and problems with how to prevent erosion at the culvert outfall. More than that, at least in Kanawha State Forest the culverts rarely work long before they clog up, and then they are only rarely cleared or otherwise maintained. Outsloped roads do not cut such a wide swath through the Forest. They drain directly off to the side, as long as the bulldozer operator doing maintenance treats the shoulder properly.

Some fear is sure to arise that an outsloped road is more dangerous for the heavy equipment drivers. However, one study by the United States Department of Agriculture Forest Service has shown that it is only outsloped road templates with grades that greater than 7 percent that can appear overly steep to a driver and give the impression the vehicle might slide off the road. See “Traveled Way Surface Shape”, USDA Forest Service, Technology & Development Program, October 1997, 9777 1808–SDTDC, page 6, also at

<http://www.stream.fs.fed.us/water-road/w-r-pdf/surfaceshape.pdf>. In addition, the other requirements of this rule should keep the roads in better shape.

The only way to counter this point as supported by this study, should be contrary studies, or statistics of trucks etc. sliding into ditches on properly maintained insloped or outsloped roads less than 7%. This determination should be based on science. See the footnote for more support for this position.¹

7.8 – The State Erosion and Sediment Control Manual sets out minimum widths for single and double land roads, but not maximum widths. Double lane roads should be prohibited. They take up much more room and cause much more disturbance and timber and brush cutting. On longer access roads there should be occasional double lane sections long enough to allow equipment to pass each other. Sufficient planning and modern walkie talkies will make this very practicable for the driller.

8.2; 8.5.3 – The slope limitations here are very important. Even a casual observer of the various roads in Kanawha State Forest can see that steeper roads are eroding. They are harder to maintain, and maintenance does not happen. The author of these comments purchased a hand-held device to measure slopes. Roads in Kanawha State Forest with slopes greater than 10% do not maintain vegetation and are eroding.

The provisions of 8.5.3 are confusing. Is the intent to say that slopes up to 14% are allowed if they are necessary to do broad based dips? That would be a compromise to get in broad based dips that work better than water bars and culverts, and do not need maintenance. If so that should be clarified.

8.4 – “Daylighting” is to be “considered” in the DEP Office of Oil and Gas Erosion and Sediment control Field Manual. However, no amount of daylighting can cause a road to dry and be stable when it is being used during the drilling phase and it rains. Attached as DOC “Appendix to comment on 8.4” are pictures of Middle Ridge Road in Kanawha State Forest which has been daylighted in the past, while it is being reused by heavy equipment in the spring. There are no scientific studies that this

¹ “In areas of cut slope instability, frost heave slough, and erodible ditches, properly located and constructed surface cross drainage can result in less erosion and disturbance to the surrounding watershed than relying completely on insloped roadways with ditches and culverts. In these locations, the surface cross drains can also reduce the need for maintaining the roadway surface accompanied by its associated sediment pulse – by reducing ponding and erosion caused by concentrated surface flow. In summer, surface cross drains can provide effective cross drainage, while reducing the risk associated with plugged ditch relief culvert inlets, which can divert water over the road in unplanned or undesirable locations.” See “Water/RoadInteraction: Introduction to Surface Cross Drains, USDA Forest Service, Technology & Development Program,” Page 1, September 1998 9877 1806–SDTDC; <http://www.stream.fs.fed.us/water-road/w-r-pdf/crossdrains.pdf>.”

commenter can find that show the benefit of daylighting during other phases of road use. One hydrogeologist consulted by this commenter say that it only might make a difference on a south facing slope in the summer during light traffic. What really counts are proper road design, construction and maintenance. No amount of daylighting can remedy failures of those stages of road development and use.

8.5.4 – There are areas in Kanawha State Forest, as one example, where there are constant wet puddles on roads that ride ridges. It is good that a solution to this problem is proposed.

8.5.5.d – The preference of most Forest users is construction of a road that makes minimum changes. This generally means no graveling. In particular, limestone gravel changes the pH of surrounding soil. We are willing to tolerate muddy roads cared for with proper construction and with maintenance techniques such as sediment barriers etc. during the drilling phase in order to avoid graveling. See the photograph attached as “Appendix to comment on 8.5.5.d” as a way to use straw bales and silt fencing instead of gravel during the heavy use drilling phase. This should be done for roads that will thereafter be gated and not be used frequently enough after initial drilling to require gravel. So we are glad to see that the least permanent disruption will be required.

8.7 – This section of the rule requiring minimum clearing is important. Attached are two pictures of roads used recently for oil and gas drilling in Kanawha State Forest. See “Appendix to comment on 8.7” attached. The first was an older existing road that was reused. The second is a newly cut well site access road. The difference is striking. One appears to have minimized clearing and the other seems to have emphasized it.

8.8 – Broad based dips are always better than other Erosion and Sediment control structures on roads. They are particularly preferred because the maintenance of ditches and culverts is so poor in Kanawha State Forest.

10.5 – One of the huge disappointments for the Kanawha State Forest Coalition is that the Rule allows the planting of non-native seeds. The provisions of 10.5.2 are satisfactory. However, the provisions of 10.5.1 use non-native seeds. A study generally called “the Upper Elk Study”² done by the West Virginia University Division of Forestry and Natural Resources for the West Virginia state government Division of Forestry demonstrated that a native wildlife mix was only 10% less effective in sediment reduction

²FINAL REPORT to West Virginia Division of Forestry, State Headquarters, 1900 Kanawha Blvd., East, Charleston, WV 25305-0180, VIGOROUS ESTABLISHMENT OF NATIVE VEGETATION ON LANDINGS AND SKID ROADS IN THE UPPER ELK RIVER WATERSHED, October 26, 2006.

than a traditional mix. See Upper Elk Study attached as the Final Appendix, at Table 2 on Page 11.

Another commentator is submitting price lists that show that the native seed that is required is not that much more expensive, if at all, than other good quality seed mixtures. And since Mountain Top Removal mines are now required to use native seeds (though not the same seeds since they want to encourage tree growth), the general availability and price of these seeds will come down.

11.2 – The increased use of outsloping, broad based dips, reduced slopes etc. that are set out in the Rule will seriously reduce the need for maintenance.

11.4 – A huge complaint of this individual commenter is road maintenance. From observation of this commenter in Kanawha State Forest, when ruts develop in roads, or for reasons not apparent to the observer, the drillers will send a bulldozer out to do their form of maintenance – maintenance which is more destructive than helpful. One of the principal goals of reclaiming the road after the drilling phase is to have vegetation on the road during the remaining life of the well access road. Yet maintenance is done by taking a bulldozer scraping the road flat – including scraping off all of the vegetation! Attached as “Appendix to comment on 11.4” is an example of this form of maintenance. This is a repeated problem that must be stopped. When it is done, this commenter can observe siltation in the streams that run down from the road in Kanawha State Forest into Davis Creek – and into the pond.

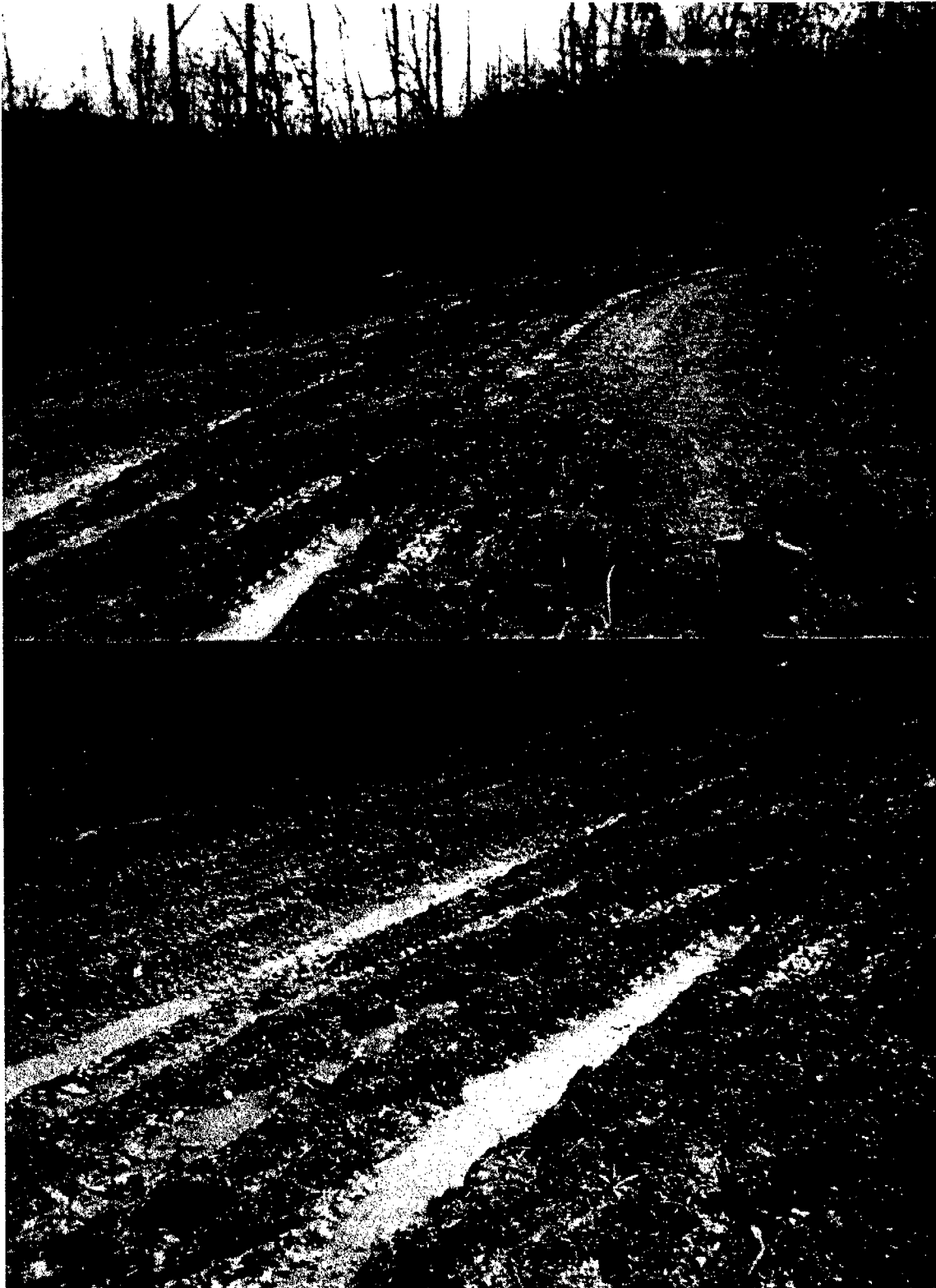
Appendices to these comments appear on the pages following this signature.

Sincerely,

David B. McMahon

DBM/dbm

Appendix to comment on 8.4



Appendix to comment on 8.5.5.d

Example of straw bales and siltfencing as an alternative to graveling of roads during well drilling phase of access road use.



Appendix to comment on 8.7

Page 1 of 2.

An older existing road that was refused
for a new gas well and reclaimed (but not with native vegetation).



Appendix to comment on 8.7
Page 2 of 2.

New road cut to new well on Wildcat Ridge.

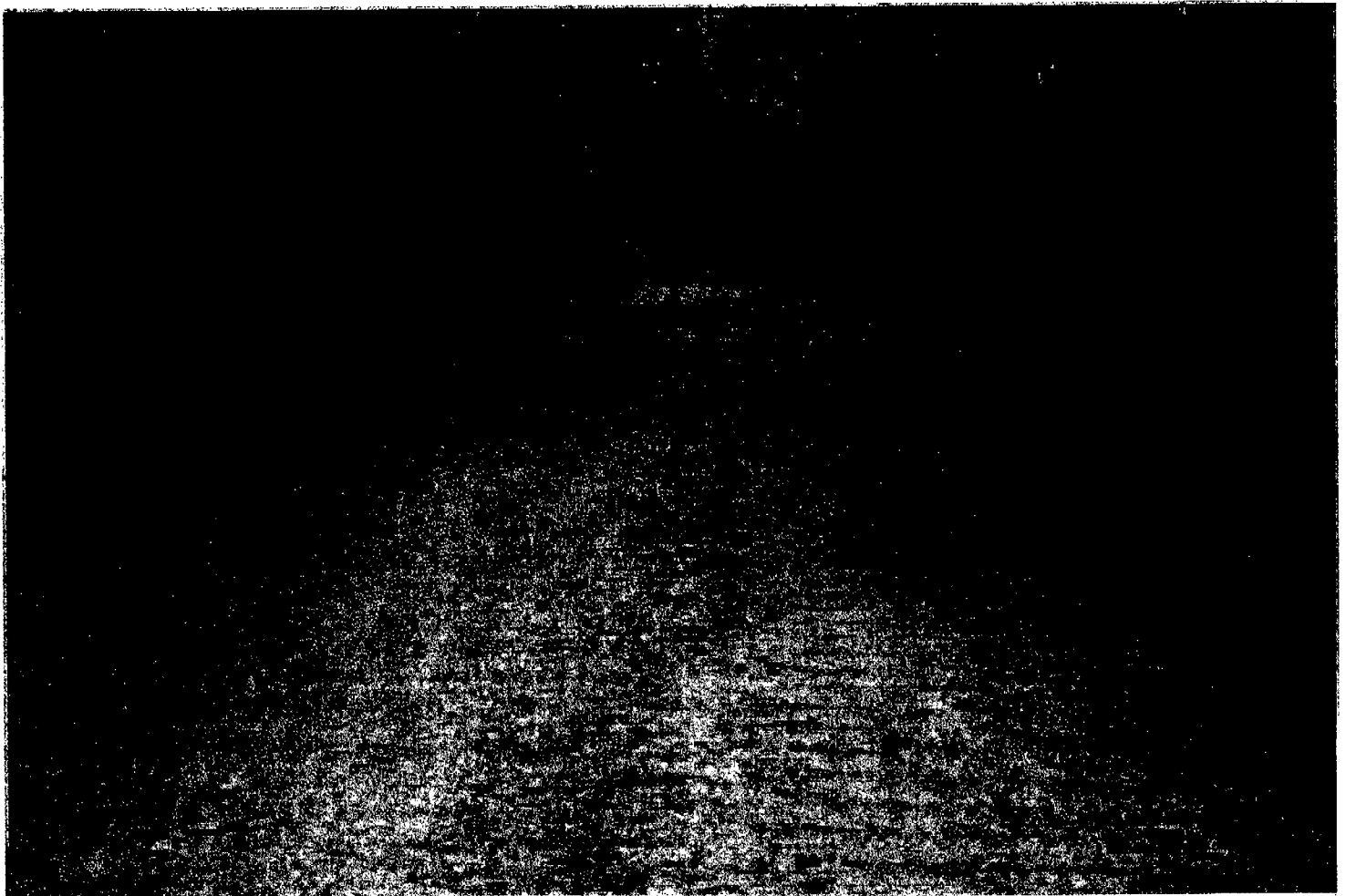


Appendix to comment on 11.4

“Maintenance” of a road in Kanawha State Forest by scraping flat with a bulldozer.

Note on the road in the distance the vegetation that has not yet been scraped off.

Note in the foreground on the right.



Final Appendix

[The “Upper Elk River” study of the use of native vegetation to reclaim roads
may be transmitted as a separate document or file.]

Final Appendix to McMahon's Comments
On Rule for Oil and Gas Access to State Forests

FINAL REPORT
to

**West Virginia Division of Forestry
State Headquarters
1900 Kanawha Blvd., East
Charleston, WV 25305-0180**

**VIGOROUS ESTABLISHMENT OF NATIVE VEGETATION ON LANDINGS AND
SKID ROADS IN THE UPPER ELK RIVER WATERSHED**

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Introduction and Background

The West Virginia forestry community has long known that controlling non-point source pollution from forest management activities is important. The West Virginia Division of Forestry published a set of Forest Practice Standards in 1972, which were the first of their kind in the eastern United States. After the Federal Water Pollution Control Act Amendments of 1972 (PL92-500), specifically section 208 of this law, the West Virginia forestry community was mandated to develop a Silvicultural Water Management Plan for West Virginia. An advisory committee, made up of individuals from the public and private sector, developed a Best Management Practice (BMP) manual in the late 1970's that was intended to reduce soil erosion due to forestry (Sherman 1985). In 1992, the West Virginia Legislature passed the Logging Sediment Control Act (LSCA). The LSCA mandated that loggers become licensed and certified, notify the West Virginia Division of Forestry of logging operations, and required that logging sites be reclaimed within seven days of the completion of operations.

Thus regulations, both mandatory and voluntary, have been enacted in West Virginia. Have they, however, reduced non-point source pollution due to forest management practices in West Virginia? Evaluations of BMP use in West Virginia were conducted in 1981, 1986, and 1990 when a more voluntary approach was used to address this issue. Although compliance with BMPs increased annually (from 59% to 75%), each evaluation found some weaknesses in loggers harvesting and reclamation procedures. These weaknesses were used to rewrite the BMP manuals so that the deficiencies could be addressed and to further direct education efforts in subsequent harvesting operations (Whipkey 1991). In 1995-1996 Egan and Rowe (1997) evaluated BMP use after the LSCA and found slight increases in compliance levels since Whipkey's study in 1991. Among the deficiencies reported by Egan and Rowe (1997) was the need for improvements in haul and skid road drainage practices (Egan and Rowe 1997). In 2004 Wang and Goff (2004) found similar BMP compliance in West Virginia.

Forest roads, skid trails, and landings are the primary source of non-point source pollution, or sedimentation, after logging operations in West Virginia (Egan et al. 1996, Kochenderfer et al. 1997). These sediments make their way to streams and can have a negative effect on vertebrate and non-vertebrate wildlife populations. Natural characteristics, such as depth, temperature and stream width, can also be affected by sedimentation. Because landings and forest roads are the largest potential source for sedimentation, it is natural for the forestry community to concentrate their research, education and outreach efforts in this area.

Erosion from skid trails and landings is often intensified by the compacted nature of the soils following timber harvest (Figure 1). Compacted soils in areas frequented by logging equipment results in a poor seedbed for the establishment of vegetation following harvest; Severe compaction may even persist for decades (Corns 1988). Usually, these areas are reclaimed by sowing seed in the divots created by dozer tracks. Although this process may lead to seedling establishment, germination is often delayed, and vegetation may develop in a "spotty" fashion (Figure 1). Further, seed mixtures used for reclamation are composed of non-native seeds dominated mainly by fescues. The establishment of native vegetation on skid roads and landings not only controls sedimentation, but it also provides nesting, feeding, and escape habitat for wildlife and promotes healthy, native plant diversity in watershed forests.



Figure 1. Soil compaction and spotty germination in dozer tracks.

Our research was conducted in the Upper Elk Watershed of the Elk River Watershed in West Virginia (Figure 2). The watershed is a high-quality coldwater system with 16 streams (23 kilometers) listed under the draft 303(d) list. The entire Elk watershed extends half the length of the state, originating in the Allegheny Mountains to the east and flowing west to meet the Kanawha River at Charleston, West Virginia. Private individuals own most of the land in the watershed; however, 26% is public land in the Monongahela National Forest. The Upper Elk watershed is 95% forested and supports some of the highest quality hardwoods in the United States.



Figure 2. Location of the Upper Elk Watershed in West Virginia.

Methods

Program Development and Wood Product Industry Involvement

We developed a program to recruit landowners in the Upper Elk Watershed for participation in this research project. Brochures were developed to describe the project and its objectives, and mailed out to landowners in the Upper Elk Watershed (Appendix A). Additionally, representatives from the Appalachian Hardwood Center visited several timber companies in the watershed to discuss the project and recruit them for participation. These were the first steps to identifying possible study areas within the watershed and to educate landowners on the project.

Development of Seed Mixtures

Our objective was to develop seed mixtures that in addition to meeting BMP requirements for sediment control, were also native and offered wildlife and aesthetic benefits. We developed 3 native seed mixtures for this project based on 3 specific enhancement criteria, and compared them to a fourth non-native mixture used currently by timber companies for reclamation (Table 1). First, we developed a stabilization mixture for use by timber companies. Its main purpose was to prevent erosion on landings, embankments, and skid trails. The second seed mixture was developed as a forage source for wildlife. Several private landowners have expressed an interest in converting landings and roads into forest openings that benefit wildlife on their property. The third mixture focused on wildflowers, and was developed for private landowners or for industry that may have a landing where they are looking for a nice esthetic. Both the wildlife and wildflower mixtures also contained the stabilization mix because the main purpose of this project was to prevent erosion from reclaimed areas. A fourth, non-native mix was also tested. This mix is the traditional mix used currently by timber companies in the watershed for reclamation.

Table 1 . Seed mixture composition and seeding rates. Mixtures were spread at a rate of 5.1 kg/hectare (25 lb/acre).

Mix	Common Name	Scientific Name	Rate	
			(kg/hectare)	Percent
Stabilization	Annual Winter Wheat	<i>Triticum aestivum</i> L.	2.0	40
	Deer Tongue Grass	<i>Panicum clandestinum</i> , Tioga	0.3	6
	Silky Wild Rye	<i>Elymus villosus</i>	1.2	24
	Creeping Red Fescue	<i>Festuca rubra</i>	1.5	30
Wildlife	Annual Winter Wheat	<i>Triticum aestivum</i> L.	0.5	10
	Deer Tongue Grass	<i>Panicum clandestinum</i> , Tioga	0.1	2
	Creeping Red Fescue	<i>Festuca rubra</i>	0.7	14
	Partridge Pea	<i>Chamaecrista fasciculata</i>	1.3	25
	White Clover	<i>Trifolium repens</i> , Ladino	2.5	49
	Rubus	<i>Rubus allegheniensis</i>	0.02	1
Wildflower	Annual Winter Wheat	<i>Triticum aestivum</i> L.	1.0	20
	Deer Tongue Grass	<i>Panicum clandestinum</i> , Tioga	0.2	3
	Silky Wild Rye	<i>Elymus villosus</i>	0.6	12
	Creeping Red Fescue	<i>Festuca rubra</i>	0.8	15
	Ox Eye Sunflower	<i>Helianthus helianthoides</i>	0.3	5
	Wild Blue Lupine	<i>Lupinus perennis</i>	0.5	10
	Black-eyed Susan	<i>Rudbeckia hirta</i>	1.1	21
	New England Aster	<i>Aster novae-angliae</i>	0.2	4
	Showy Tick Trefoil	<i>Desmodium canadense</i>	0.5	10
Traditional	Orchard Grass	<i>Dactylis glomerata</i> L.	*	*
	Rye Grain	<i>Secale cereale</i>		
	Birdsfoot Trefoil	<i>Lotus corniculatus</i> L.		
	Timothy Grass	<i>Phleum pratense</i>		
	Red Clover	<i>Trifolium pratense</i>		
	Perennial Ryegrass	<i>Lolium perenne</i> L.		
	Unknown Seed			

*Seeding rates and percentages are unknown for the traditional mixture.

Study Site Identification

Satellite imagery of the Upper Elk Watershed taken in 2003 was used to identify candidate landings and skid trails for this project (Figure 3). Foresters from the West Virginia Division of Forestry and local timber companies also provided assistance in locating possible sites and in making contacts with landowners. Extensive site visits were required to select study sites in both 2005 and 2006.

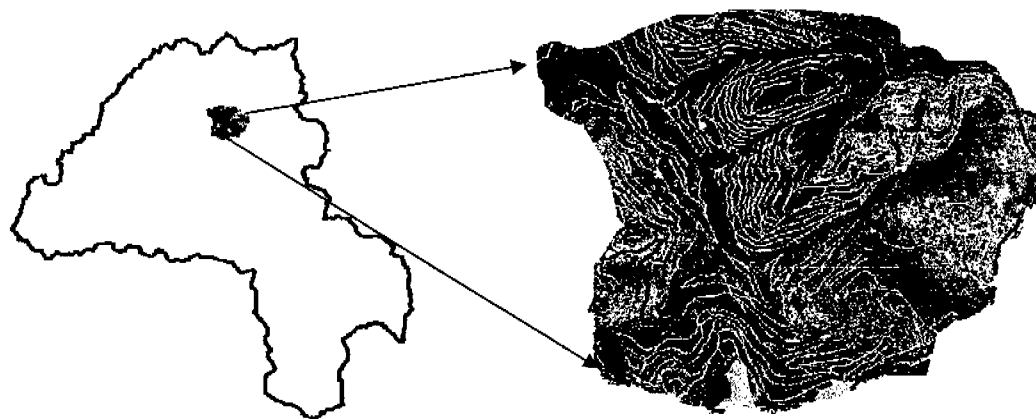


Figure 3. Digital imagery of the Upper Elk Watershed with skid trails and landings.

Landing Reclamation

Twelve landings were reclaimed during the spring of 2005 and twelve landings during the spring of 2006 for this project (Figure 4); two of the landings reclaimed in 2006 were sites that were unsuccessfully planted in 2005. Soil samples were taken from landings in 2005 and sent in for analysis to determine lime and fertilizer requirements for the watershed. Landing preparations included soil scarification using a modified ripper-tooth dozer-blade assembly (Figure 5) and plantings of native seed mixtures. The modified ripper-tooth dozer-blade assembly (Figure 5) was developed to turn up the soil on landings and create better seed to soil contact than is created by traditional dozer blade dragging of landings before planting. The assembly can be hydraulically fitted onto any dozer and requires no extra modifications to the dozer blade for use. Two ripper-assemblies are available for companies and landowners in the watershed. Landings were seeded and mulched by hand in 2005 using no additional fertilizer or lime. The scarified soil on landings was dragged using a harrow drag and ATV, and then rolled flat after planting using a lawn roller and ATV, for optimum seed to soil contact. All areas were reclaimed using a 4.5 kg/ha (25lb/acre) seeding rate and were mulched with straw to prevent non-native seed contamination. Silt fence was installed around landings to decrease potential erosion during scarification and reclamation (Appendix B).

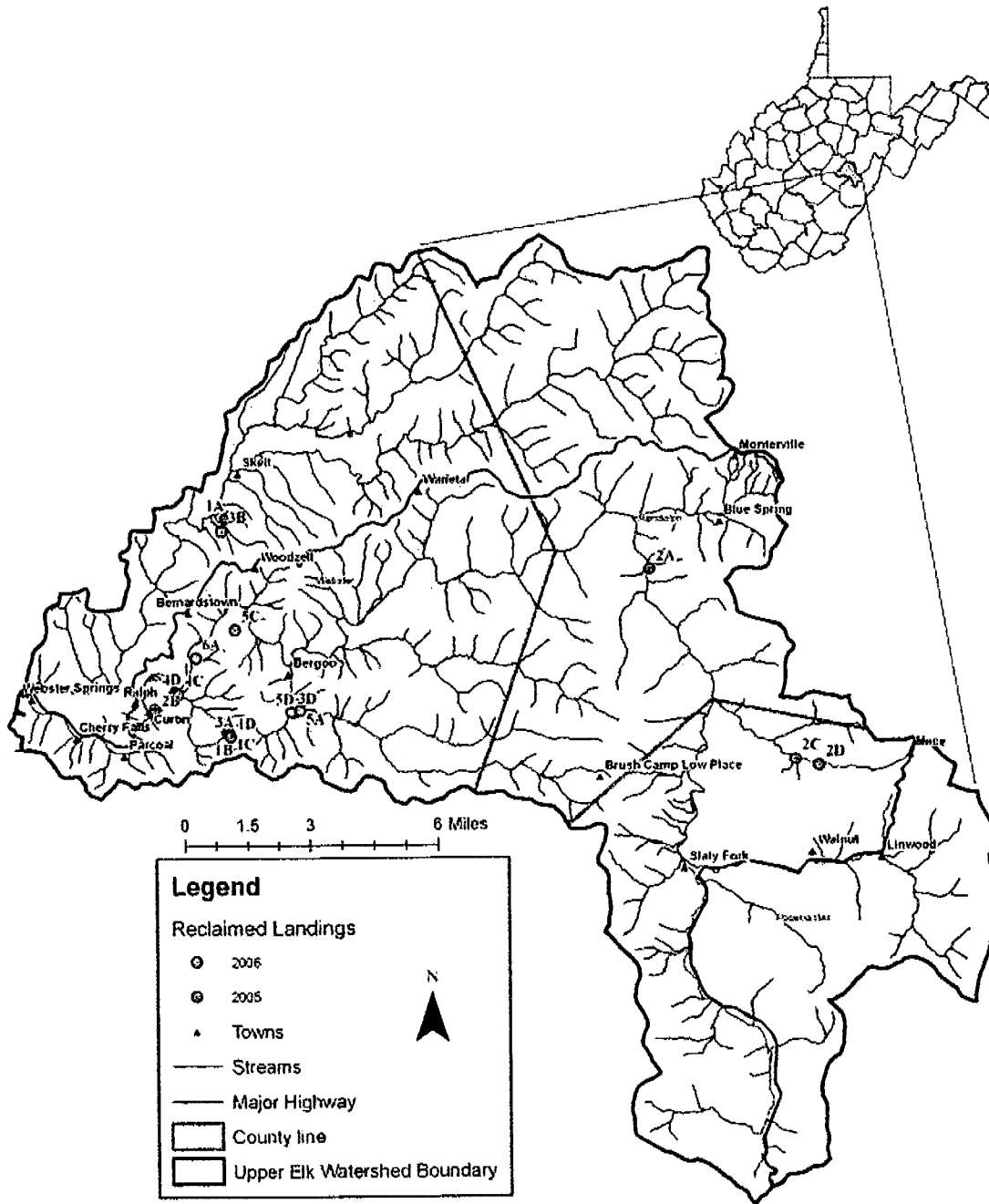


Figure 4. Reclaimed landings in 2005 and 2006 in the Upper Elk Watershed.



Figure 5. Modified ripper-tooth dozer-blaze assembly

In 2006, a hydroseeder was used to plant landings. Both fertilizer and lime were added to the seeding mixture to maximize planting success. Hydroseeding became the main method of planting in 2006 and resulted in the development of an affordable, easy to use 500-gallon hydroseeder (Figure 6) made possible through supplemental grant money provided by the Upper Elk Soil Conservation District. The hydroseeder was mounted onto a trailer that can be pulled behind a vehicle.

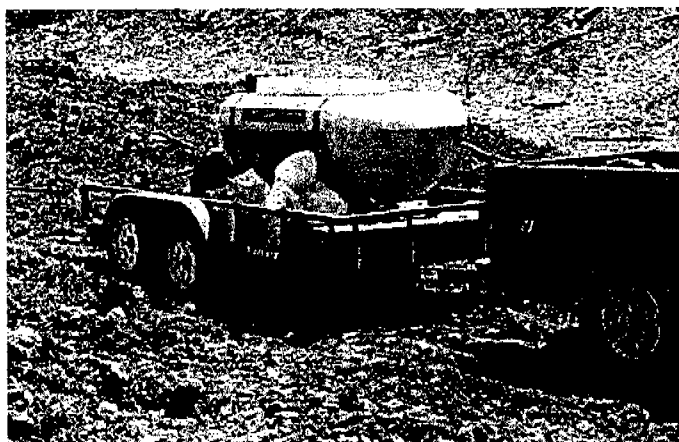


Figure 6. 500-gallon log landing hydroseeder mounted on a trailer to be pulled behind a truck.

To measure sediment eroding from log landings, a modified silt-fence method of collection was used (Robichaud and Brown 2002). This technique is simple, efficient once fences are installed, and inexpensive relative to other sediment collection techniques (Robichaud and Brown 2002). Sediment “wells” were constructed of silt fencing (Amoco geo-textile #2016, Austell, Georgia) on the greatest slope of each log landing. Fencing was installed in a 3.2M x 3.2M square to prevent outside sediment from running into the calculated area of the well (Appendix B). Once secured with wooden stakes, excess fencing at the bottom of the slope was folded towards the upslope (Appendix B). The edge of the fencing was secured using turf staples placed every 6 cm. This upturned area created a collection well from which to collect sediment. The collection well material area could be precisely calculated and represented a definitive boundary between the soil and collected sediment.

Soil movement was assessed by collecting sediment samples from landings during the summer of 2005 and 2006 on a bimonthly (every two weeks) basis using shovels, brooms, and hand brushes. Sediments were placed into an already weighed, plastic bucket and weighed on site. A small sub-sample was obtained from the homogenized sample and brought back to the laboratory for drying. Sub-samples were dried at 105 °C to a constant temperature (Robichaud and Brown 2002). Dry weight of the sediment was calculated for each sub-sample, which was then used to calculate the dry weight of each sample.

Seed Mixture Success

Vegetation was clipped in July and September 2005 and 2006 from 3, 1/3-m² plots on each landing. Samples were brought back to the lab and dried in a forced-air oven to a constant mass to test for biomass. During clipping, percent cover and height were measured in each 1/3-m² plot and an average was calculated for each landing.

Skid Trail Reclamation

All skid trails chosen for reclamation work were monitored during the summers of 2005 and 2006. Twelve, untreated skid trail sections (~ 10 meters in length) of equal grade were randomly selected and paired with a skid trail section of equal length and grade that received a fiber mat and native grass seed. Sediment traps were constructed with silt fence at the downslope ends of each skid trail section (Appendix C). Sediments were collected from silt traps three times during summer 2005 and bimonthly during summer 2006 following the same methods used to collect sediment on landings.

Hydroseeding skid trails was a logistic problem because commercially available hydroseeders were too large to use on most skid trails. As a result, a smaller 200-gallon hydroseeder (Figure 7) mounted on an ATV trailer was developed to be pulled behind a dozer using the supplemental funds provide by the Upper Elk Soil Conservation District. The skid trail and landing hydroseeders are now available to companies and landowners for use in the watershed.



Figure 7. Skid trail hydroseeder mounted on an ATV trailer to be pulled behind a dozer.

Road Embankment Reclamation

A combination of the stabilization mixture and wildlife mixture was given to a local logging operator to use in hydroseeding haul road embankments in 2006. Haul road embankments were monitored bimonthly (every two weeks) during the summer of 2006 for vegetation establishment and sediment movement. Ten sections of the same log road were monitored using the same methods as skid trail sediment collection (Figure 8). Four silt traps were randomly placed below embankments seeded with our wildlife mixture, 4 silt traps were randomly placed on embankments seeded with the traditional mixture, and 2 silt traps were randomly placed on embankments that were not seeded. All slopes on the log road were similar at well locations.



Figure 8. Silt fence trap on log road embankment planted with native seed mixture.

Wildlife Surveys and Forage Quality

Landings were monitored for small mammal use in June, August, and October 2005 and 2006 to determine how well seed mixtures created habitat for wildlife. Small animal use is a good indicator of overall habitat and forage quality of each mixture. Fourteen trapping stations were set on each landing with 1 ventilated Sherman live trap (Trap-LFAHD-P, H. B. Sherman Traps, Tallahassee, Florida) and 1 medium-sized Tomahawk live trap (#202, Tomahawk, Tomahawk Live Trap Company, Wisconsin). Traps were monitored for 4 nights on each landing during each month.

Samples from vegetation clippings were sent to the West Virginia University rumen analysis lab for forage quality testing. The samples were tested for % NDF, % ADF, and % Crude Protein. %NDF and %ADF are measures of indigestible a forage is to wildlife. Therefore, lower %ADF and %NDF values suggest higher quality forage for wildlife. Additionally, biomass measurements indicate the amount of forage being provided by each mixture.

Results

Seed Mixture Success

Biomass is an important measure of sediment stabilization and habitat structure. Biomass was highest (36.43 g/m²) on landings planted with the traditional mixture, followed by closely by the wildlife mixture (20.86 g/m²), wildflower mixture (9.50 g/m²), and stabilization mixture (8.00 g/m²) (Table 2). Percent cover is a measure of unexposed soil on the landings. Average percent cover was highest on landings planted with the traditional mixture (87.85 %), followed by the wildlife mixture (69.60 %), wildflower mixture (41.00 %), and stabilization mixture (33.57 %) (Table 2). Vegetation height is a measure of structure and growth. Average height was highest on the landings planted with the wildlife mixture (25.4 cm), followed by the traditional mixture (21.1 cm), stabilization mixture (18.1 cm), and wildflower mixture (11.5 cm) (Table 2).

Each mixture reduced different amounts of sediments. Soil was collected from 2 non-vegetated landings in 2005. Non-vegetated landings yielded 488.9 kg/ha of sediment. Sediment reductions were 85.74 % for the traditional mixture, 75.73 % for the wildlife mixture, 43.71 % for the stabilization mixture, and 27.59 % for the wildflower mixture (Table 2).

Table 2. Average biomass, % cover, height, and sediment collected for each mixture over the course of the study.

Mixture	Average Biomass(g/m ²)	Average % Cover	Average Height (cm)	Average Sediment Dry Weight (kg/m ²)	Average Total Sediment Dry Weight (kg/ha)	% Sediment Reduction
Non-vegetated	-	-	-	1.98	488.99	-
Traditional	36.4	87.9	21.1	0.28	28.23	85.74
Stabilization	8.0	33.6	18.1	0.87	86.53	43.71
Wildlife	20.9	69.6	25.4	0.48	48.05	75.73
Wildflower	9.5	41.0	11.5	1.43	143.35	27.59

Landing Sediments

Due to the destruction of sediment monitoring stations by vandals during the summer of 2006, only sediment data from landings collected during 2005 was used for sediment expansion calculations. An average of 197.97 kg/ha of sediments were collected from landings without vegetative growth (Table 3). On average, 62.4 kg/ha were collected from landings with vegetation (Table 4). These data suggest that a 68 % reduction in the amount of sediments moving on landings that were vegetated versus those without vegetation establishment.

Table 3. Sediments collected on landings without vegetation growth during summer 2005 in the Upper Elk River Watershed.

Site	Sediment Dry Weight (Grams/10 m ²)	Total Sediment (kg/ha)
1A	30.2	324.9
2D	6.6	71.0
Mean	18.4	197.9
StDev	16.7	237.2

Table 4. Sediments collected on landings with native vegetation establishment during the summer of 2005 in the Upper Elk River Watershed.

Site	Sediment Dry Weight (Grams/10 m ²)	Total Sediment (kg/ha)
1B	0	0
1C	0	0
2A	15.6	167.8
2C	6.4	67.8
3C	7.1	76.4
Mean	5.8	62.4
StDev	6.4	69.2

Skid Trail Sediments

Road sections with no fiber mulch or seeding averaged 1722.7 kg/ha in 2005 and 6557.2 kg/ha in 2006 compared to those with fiber mulch and seeding averaged 344.0 kg/ha in 2005 and 603.5 kg/ha in 2006. Vegetation averaged 17.5 cm in height in 2005 and 24.25 cm in 2006 on fiber mulch treated road sections; no vegetation was observed on sections without fiber mulch during the study period (Table 5). The planting of native vegetation and use of fiber mats accounted for an 80% reduction in the amount of sediments moving from skid trails in 2005 and 92% in 2006 in the Upper Elk River watershed.

Table 5. Sediments collected on skid trails planted with native vegetation and covered with fiber mats and skid trails without reclamation during the summer of 2005 in the Upper Elk River Watershed.

Skid Trail Section	Treatment	Area (m ²)	Area (acres)	Sediment Collected (Grams/ m ²)	Sediment Collected (kg/ha)
2005					
	1 Ref	23.6	.015	2633	1103.8
	3 Ref	25.7	.015	140	53.8
	5 Ref	19.5	.012	2338	1186.4
	7 Ref	9.9	.005	2590	2591.5
	9 Ref	26.1	.017	6155	2332.6
	11 Ref	52.7	.032	16356	3068.3
	Average	26.2		5035.3	1722.7
	StDev	14.3		5872	1130.8
	2 Planted	50.1	.032	696	137.2
	4 Planted	29.8	.017	148	49.1
	6 Planted	18.5	.012	531	283.6
	8 Planted	15.4	.009	961	615.0
	10 Planted	35.2	.022	1135	318.8
	12 Planted	24.1	.015	1614	660.3
	Average	28.9		847.5	344.0
	StDev	12.7		509	248.0
2006					
	1 Ref			1017.00	418.7
	3 Ref			0.00	0
	5 Ref			3284.00	1622.3
	7 Ref			13761.00	16994.8
	9 Ref			20661.00	7290.4
	11 Ref			68511.00	13017.1
	Average			17872.33	65572.1
	StDev			26097.11	715.9
	2 Planted			250.00	47.5
	4 Planted			25.00	8.8
	6 Planted			244.00	120.5
	8 Planted			1945.00	1201.0
	10 Planted			3381.00	927.9
	12 Planted			3196.00	1315.7
	Average			1506.83	603.6
	StDev			1544.54	610.9

Road Embankment Sediments

Embankments with no vegetation averaged 4687.8 kg/ha, those with traditional vegetation averaged 1914.4 kg/ha, and those with native vegetation averaged 1976.9 kg/ha (Table 6). Vegetation averaged 24.75 cm in height on embankment sections seeded with the traditional mixture and 17.5 cm in height on embankment sections seeded with the native mixture. The use

of the traditional mixture accounted for a 59% reduction in sediments and the native mixture accounted for 58% reduction in sediments moving from log road embankments in the Upper Elk Watershed.

Table 6. Sediments collected on log road embankments planted with a native seed mixture, planted with the traditional mixture, and left with no vegetation during the summer of 2006 in the Upper Elk River Watershed.

Embankment Section	Treatment	Area (m²)	Area (acres)	Sediment Collected (kg/m²)	Sediment Collected (kg/ha)
1N	None	8.65	.025	2.79	3455.5
2N	None	17.42	.012	11.99	5924.0
	Average	13.03		7.39	4689.8
	StDev	6.20		6.50	1745.5
1B	Traditional	13.45	.007	0.17	143.3
2B	Traditional	12.37	.007	0.23	195.9
3B	Traditional	10.09	.005	2.89	3580.3
4B	Traditional	11.29	.007	4.54	3737.9
	Average	11.80		1.96	1914.4
	StDev	1.44		2.13	2015.8
1C	Native	14.41	.009	1.76	1091.7
2C	Native	8.17	.005	4.39	5425.4
3C	Native	12.13	.007	0.48	397.7
4C	Native	10.69	.005	0.80	992.9
	Average	11.35		1.86	1976.9
	StDev	2.62		1.77	2319.3

Watershed Level Sediment Reductions

To estimate the effect of seeding all landings and skid trails in the study area using the described methods, the approximate areas of recent skid trails and landings in the Upper Elk River watershed were calculated. Methods described in Petty et al. (2005) were used to approximate these areas (Table 7). Harvested acreage in the watershed has increased since the watershed harvest area was approximated, most likely making our sedimentation calculations lower than what is most current.

Table 7. Forestry related land-use statistics estimated from digitizing all visible timber harvests using the WV Statewide Addressing and Mapping Board imagery set. The imagery was captured during "leaf-off" at a negative scale of 1 inch = 240 feet' in the spring of 2003, which produced natural color digital orthophotos at a 2 foot pixel resolution. The ortho-rectification process has achieved < 9.8 feet. horizontal error at a 95% confidence level. The TIFF files used are 10,000 feet X 10,000 feet uncompressed 24-bit natural color at a pixel resolution of 2.0 feet.

Total Hectares	Harvested Hectares	Landing Hectares	Skid Trail Hectares
380773.5	157310.0	482.6	13190.3

If all recent landings (<5 years of age) were vegetated using native seed mixtures, an estimated 11.8 ton reduction in sediments from landings during the growing season could be expected (0.1 tons/day reduction) (Table 8).

Table 8. Sediment reductions from landings estimated for the Upper Elk River watershed.

	<u>Tons</u>	<u>Tons/Day</u>
Total		
Sediments	17.26	0.14
Reduction	11.82	0.10
Remaining	5.44	0.04

If all recent skid trails (<5 years of age) were vegetated using native seed mixtures and fiber mats, a total of 3285.8 tons of sediments, based on 2005 data (Table 9), would not move from skid trails during the growing season (26.7 tons/day reduction), and 14188.9 tons (107.5 tons/day reduction) of sediments based on 2006 data (Table 10). This is assuming that all skid trails averaged at least 15% grade – thus these estimates are likely inflated.

Table 9. Sediment reductions from skid trails estimated for the Upper Elk River watershed in 2005.

2005	<u>Tons</u>	<u>Tons/Day</u>
Total		
Sediments	4105.65	33.38
Reduction	3285.75	26.71
Remaining	819.90	6.67

Table 10. Sediment reductions from skid trails estimate for the Upper Elk River watershed in 2006.

2006	<u>Tons</u>	<u>Tons/Day</u>
Total		
Sediments	15627.32	118.39
Reduction	14188.86	107.49
Remaining	1438.47	10.90

Wildlife Surveys and Forage Quality

Species caught most often in traps included the white-footed deermouse (*Peromyscus leucopus*), North American deermouse (*Peromyscus maniculatus*), Eastern chipmunk (*Tamias striatus*), Virginia opossum (*Didelphis virginia*), Allegheny woodrat (*Neotoma magister*), Southern red-backed vole (*Clethrionomys gapperi*), woodland vole (*Microtus pinetorum*), and Northern short-tailed shrew (*Blarina brevicauda*). Animal abundances were highest on landings planted with the stabilization mixture and wildlife mixture, and lowest on landings planted with the wildflower and traditional mixture. Animal diversity was highest on landings planted with the wildlife mixture, followed by the stabilization mixture, traditional mixture, and then the wildflower mixture (Table 11). These numbers relate closely to the amount of biomass grown by each seed mixture (Table 12). In general, mixtures that grew higher amounts of biomass had relatively higher animal abundances and diversity.

Table 11. Small mammal relative abundance and diversity (richness) found on landings with each of the mixtures.

	Small Animal Relative Abundance	Small Animal Species Diversity
Stabilization	6.0	3.5
Wildlife	4.5	4.0
Traditional	3.0	3.0
Wildflower	3.0	2.0

% NDF and % ADF should be low, whereas % Crude Protein and Biomass should be high. Crude protein was highest for the traditional mixture (13.50 %), and lowest in the stabilization mixture (7.22 %). % NDF was lowest in the wildlife mixture (41.78 %), and highest in the stabilization mixture (53.71 %). % ADF was lowest in the wildlife mixture (29.23 %), and highest in the wildflower mixture (37.27 %) (Table 12). Looking at the combined data for trapping and forage quality, the wildlife mixture is the best mixture for wildlife habitat and forage.

Table 12. Forage quality of mixtures.

	% NDF	% ADF	% Crude Protein	Biomass (g/m²)
Stabilization	53.71	35.99	7.22	36.43
Traditional	46.57	32.53	13.50	8.00
Wildlife	41.78	29.23	11.02	20.86
Wildflower	47.95	37.27	9.22	9.50

Management Implications

Exposed soils following harvesting operations represent the main potential for erosion. If vegetation is not established quickly, erosion of these exposed surfaces is likely until natural herbaceous and woody vegetation becomes established. Creating a proper seedbed for quick vegetation establishment is important, and current methods can be revised to work more efficiently. The establishment of vegetation on skid roads appears to be the most critical when it comes to sediment movements. After harvesting in West Virginia, skid roads and trails represent approximately 10 percent of the total harvest area. Therefore, vigorous establishment of vegetation on skid roads should be of top priority when timber harvesting sites are reclaimed.

Using native seed mixtures for reclamation is an important consideration for the future. Forest openings created by timber harvesting can be transformed into a valuable resource for native wildlife. Thus, minimizing sediments by using planted native mixtures can provide broad benefits to overall forest ecosystem. Sediment control using native vegetation is equal, and sometimes less than, that of traditional seeding mixtures. However, native vegetation provides better quality forage and habitat to wildlife while also maintaining native, forest biodiversity. Further experimentation with native seed mixtures may yield an option that provides equal, if not better, sediment control than the traditional mixture, while also improving for forest wildlife and biodiversity.

Most research has shown that sediment levels return to pre-harvest levels within three years of harvest. Reductions of the magnitude found indicate that the use of fiber mats and proper re-vegetation of skid roads after harvest has good potential for limiting sediment movement after timber harvest. It has been found that forest litter and vegetation strips reduce the amount of sediments that actually make it into a stream system. Therefore, one cannot assume that the reductions documented would mirror those found at streamside. However, keeping sediment from moving from the road systems limits the amount buffered by litter and vegetation surrounding the stream corridor, thus adding to their protective qualities.

Outreach

A major objective of this project was to educate landowners in the watershed on the project, as well as provide them with resources and tools to perform many of the same practices that were researched. This was done in several ways. First, seed mixes were distributed to local landowners. Approximately 20 hectares (48 acres) worth of seed was distributed to be used in log landing, skid trail, and road embankment reclamation. A ripper-tooth assembly for plowing landings was developed, as was a log landing and skid trail hydroseeder. All of these tools are now available to landowners for use in the watershed.

To educate and demonstrate the use of the tools and inform stakeholders of their availability, a workshop was hosted on September 26, 2006. Forty-eight people (Figure 9) participated in the workshop including WVU researchers, Forest Industry representatives, WV Division of Forestry personnel, consulting foresters, and landowners. Tours were given of several landings and a demonstration of our log-landing vegetation method which included ripping the landing with the ripper-tooth assembly, smoothing the ripped area with the dozer blade, and hydroseeding the newly exposed soil was given.



Figure 9. Photos from the landing and skid trail reclamation demonstration held on September 26, 2006 near Webster Springs, WV.

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Appendix A: Brochure developed by the Appalachian Hardwood Center to recruit landowners for the project.

**WVU
Appalachian
Hardwood Center**

The AHC plays a significant role in fostering sustainable natural resource-based economic and community development by promoting and securing communication and partnerships among appropriate stakeholders, by conducting basic and applied research, and by providing unbiased and scientifically-based technical knowledge, information, and educational programs.



Picture of forest landscape in a watershed watershed in the AHC in the WVU Hardwood Center



Map of the Upper Elk River Watershed in Harrison, Raleigh, and Putnam Counties, WV




**West Virginia University,
Appalachian Hardwood Center**

PO Box 4125
Martinsburg, WV 25904-4125
http://www.ahc.wvu.edu
Phone: 800-253-2141
Fax: 304-253-2141
E-mail: apahc@wvu.edu

**West Virginia
University,
Appalachian
Hardwood Center**



**Upper Elk
Watershed Log
Landing
Vegetation
Project**



Appalachian Hardwood Center

**Wanted: log landings
and skid trails with
little vegetation!**

The Appalachian Hardwood Center at West Virginia University has initiated a cooperative project with the West Virginia State Division of Forestry and the West Virginia Department of State.



Log landing with little vegetation in a watershed in the Upper Elk River watershed.

Our goal is to develop new landing and skid trail infrastructure systems in the Upper Elk River watershed. We plan to create optimal wildlife in landing and skid trails in the Upper Elk River area. These areas will then be treated with native species and native forest trees and tree species. This provides an excellent habitat as well as benefit to sustainable water quality and wildlife.

The main goal of this project is to reduce sedimentation into the Elk River through vegetation establishment.

Landowners and the state will work together to establish vegetation growth. We are looking for you.

What are the requirements?

If you agree to participate, the Appalachian Hardwood Center will provide log landing and skid trails on your property. There will be no need for a road or any other infrastructure. We will then be treated with native species, grasses, and tree species. All of our work will be done in a way that you can see our staff to monitor vegetation growth, water quality and quantity, and wildlife use. The majority of the restoration will occur during the early spring through early summer of 2006. Monitoring will last through the summer of 2006.

How do I become involved?

If you are a landowner in the Upper Elk River watershed, please contact Shawn Griffith, WVU Hardwood Center, 1000 Harrison Ave., Ste. 1000, WV University, Putnam County, WV 25904-4125.

Who do I contact?

If you would like to become involved in this effort, please contact Shawn Griffith, WVU Hardwood Center, 1000 Harrison Ave., Ste. 1000, WV University, Putnam County, WV 25904-4125.

Shawn Griffith
(304) 253-2141 x1411

Dave McCall
(304) 253-2141 x1411

Shawn Griffith, WVU Hardwood Center
(304) 253-2141 x1411

Dave Lilly, WVU Hardwood Center
(304) 253-2141

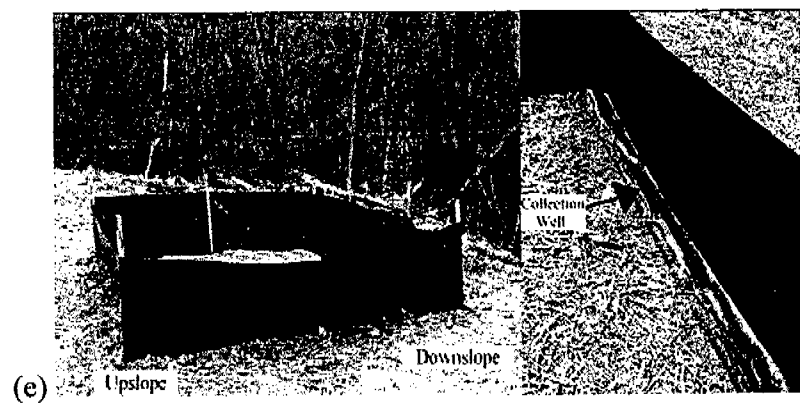
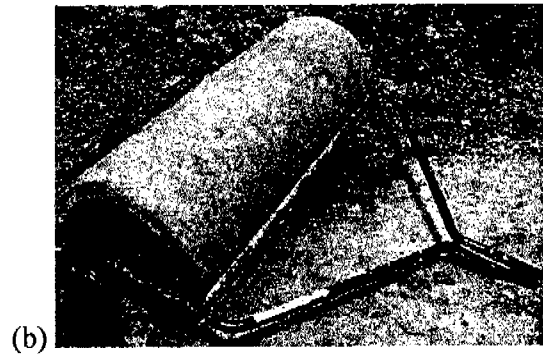


Appalachian Hardwood Center

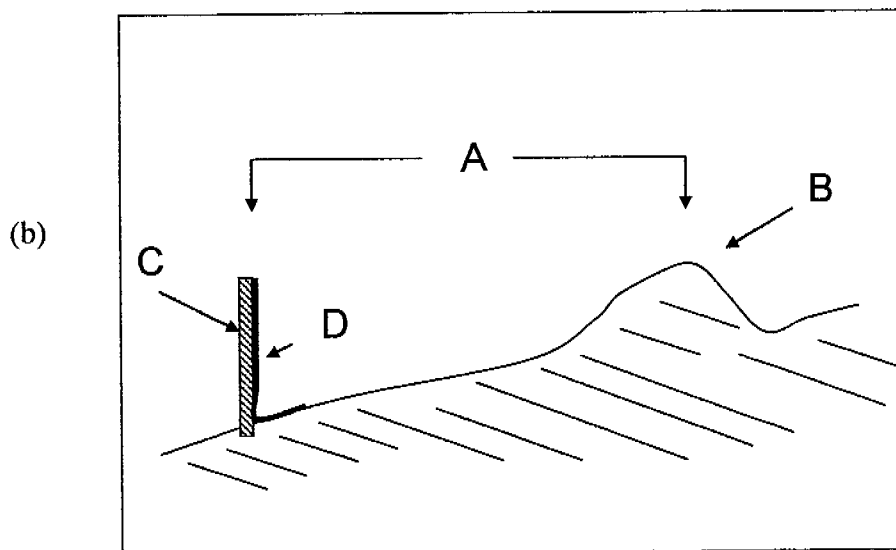
West Virginia University,
Appalachian Hardwood Center

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Appendix B: Log landing reclamation methods: (a) harrow drag, (b) lawn roller, (c) silt fence installation, (d) finished landing, (e) silt fence collection well setup.



Appendix C: Skid trail reclamation and sediment collection: (a) silt fence well on skid trail and (b) silt fence well set-up. Drawing includes catchment area (A), water bar (B), silt fence stake (C), and silt fence (D) with silt trap at base.





WEST VIRGINIA OIL AND NATURAL GAS ASSOCIATION



July 27, 2007

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Capitol Complex, Bldg. 3, Room 714
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Parks & Recreation

JUL 27 2007

Deputy Chief's Office

Re: Comments on Proposed Rules for Conditions Upon Which Oil and Gas Operators May Access State Forests

The Independent Oil and Gas Association of West Virginia, Inc. ("IOGA") and the West Virginia Oil and Natural Gas Association ("WVONGA") respectfully submit these comments with respect to the "Proposed Rules for Conditions Upon Which Oil and Gas Operators May Access State Forests" filed June 28, 2007, (the "proposed rules"). IOGA is a trade association composed of approximately 400 members with approximately 8,500 employees and focuses on the production and marketing of oil and gas. WVONGA is a trade association established in 1916, representing oil and gas pipeline transportation, service, distribution and production companies. IOGA and WVONGA are collectively referred to herein as the "WV Gas Industry."

The WV Gas Industry has several legal and policy concerns regarding the proposed rules. First, the proposed rules exceed the scope and legislative authority granted to the Division of Natural Resources ("Natural Resources") by Senate Bill 460. Senate Bill deals simply with notification requirements before accessing private property in state forests. However, the proposed rules go far beyond this simple mandate and even seek to alter well established common law doctrines, displace an established regulatory program governing oil and gas exploration and production activities, and create an unnecessarily complex and duplicative regulatory program.

Additionally, the proposed rules do not fully consider and disclose the impact of the rules on West Virginia or its residents and therefore do not comply with the requirements of the West Virginia Administrative Procedures Act. By failing to consider the fiscal impacts to our State and its residents, the legislature can not fully assess the scope of the regulatory program that the proposed rules establish.

Lastly, from a technical standpoint, many of the road building standards and requirements established by the proposed rule are not technically feasible or prudent, and will have the unintended consequences of exacerbating the conditions that the Legislature sought to address in SB 460.

The WV Gas Industry is deeply concerned about many provisions of the proposed rules. For example, if implemented as drafted, the proposed rules deny access to private property seventy five percent of the year, require excess road construction in state forests, and impose excessive costs on private property owners. As an alternative for consideration and an integral part of these comments, the WV Gas Industry submits rules, which we believe, accomplish the objectives of the legislation authorizing these rules. As we understand Senate Bill 460, the authorizing legislation contemplated rules regarding notice prior to accessing private property in state forests and did not contemplate the proposed rules. The following paragraphs present the WV Gas Industry's comments on the proposed rules as well as our Alternative Rule for consideration by Natural Resources.

I. COMMENTS REGARDING THE PROPOSED RULES

1. The Proposed Rules Could Create A Cause of Action Against The State of West Virginia for Taking Private Property Without Just Compensation.

When state forests were created, not all the property in the state forest was purchased by the State of West Virginia. Oil and gas owners were not paid for their property. State forests were established subject to the legal right of oil and gas owners to drill, produce, use and enjoy their oil and gas property.

However, the proposed rules create unbearable conditions as to whether, how and when tax paying private property owners may access their oil and gas property. For example, proposed rule 5.2.5 of § 58-35-5 provides that: "[except for emergencies]...construction and maintenance of all wells and roads will be restricted to the period beginning August 1 and ending October 31." As we read this proposed rule, oil and gas owners can only drill wells three months during the year. Drilling costs and rig availability differ throughout the year. Oil and gas owners need to drill in state forests throughout the year when drilling rigs are available, and the inability to do so means drilling costs will be increased and income lost. There are several additional provisions in the rule, which materially devalue the oil and gas estate. However, because the proposed rules greatly vary from the authorizing legislation, present cost prohibitive requirements, and are so restrictive that they cannot be considered for adoption, each objection and instance of devaluation is not reviewed in these comments.

As only one example of the damage the proposed rules would cause, please consider that fluid frequently enters a well and impedes gas production. As part of normal maintenance, equipment is used to bail, pump or swab fluid from the well throughout the year to permit normal production. Use of well maintenance equipment often requires road repair. If adopted as proposed, only three months would be available to use well service equipment, which would require road maintenance. The inability to perform this maintenance throughout the year will reduce revenue and could result in total loss of some wells. The access restrictions and conditions of the proposed rules impermissibly deny oil and gas owners the only economically viable use of their land, the right to produce oil and gas. Regulation of coal mining methods was a taking in *Georgia-Pacific Corp. v. United States*, 1980 U.S.Ct.Cl. LEXIS 1216 (1980). That case states "while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking." The regulation of the proposed rules is greater than the regulation in that case. Denial of access can be a taking. *Foster v. United States*, 1978 U.S.Ct.Cl. LEXIS 833 (1978).

The proposed rules restrict production, and as a result, they will also decrease severance tax to the State of West Virginia and property tax revenue for its schools.

2. The Proposed Rules Alter Common Law Doctrines Without Statutory Authority

The proposed rules alter well-established common law doctrines concerning mineral rights by declaring that mineral rights are subservient to the rights of the surface estate. Specifically, section 1.1 states that the uniqueness of state forests “results in a different result [than expected under well established common law doctrines] when balancing the operator’s and surface owner’s rights under the law.” This sweeping declaration has no legal basis whatsoever. Neither Senate Bill 460 nor Natural Resources’ general authority to establish state forests contemplate the declaration of Section 1.1. A rule cannot change law, and this provision is another clear example of how the proposed rules invite suits against the State because the proposed rules take oil and gas rights and revenue.

3. The Proposed Rules Unnecessarily Duplicate Existing Regulatory Programs

The proposed rules attempt to establish a regulatory program that duplicates regulation under an existing program managed by the West Virginia Department of Environmental Protection’s Office of Oil and Gas (“Office of Oil and Gas”). Specifically, the proposed rules establish requirements for road construction, reclamation, revegetation, and maintenance that are currently regulated by the Office of Oil and Gas pursuant to West Virginia law. The Office of Oil and Gas has jurisdiction over oil and gas operations on public and private lands. The Office of Oil and Gas created the West Virginia Erosion and Sediment Control Field Manual (“E&S Control Manual”), which contain standards for all activities addressed by the proposed rules. The E&S Control Manual is a comprehensive planning document that establishes procedures upon which permittees may access any lands, public or private, for the purpose of well work. There is no factual or legal basis for developing an alternative program. The Office of Oil and Gas has a staff trained and qualified to administer these activities. To the contrary, Natural Resources does not have the experience to regulate oil and gas production, nor to adopt rules for regulation of oil and gas exploration and production. The proposed rules would change established successful practices designed and supervised by people with expertise in the industry. Duplicate regulation was not the intent of the legislature when the bill was passed.

4. The Proposed Rules Could Cause Unnecessary Damage to State Forests.

Proposed rules section 8.2 requires road grades of 10% slope with “[f]inal center line gradients not exceeding 15% ... for distances up to 200 feet.” In the steeper parts of state forests, particularly in a mountainous state forests like Panther and Cabwaylingo, complying with this regulation will require roads which spiral up and around the mountains, and are therefore substantially longer than actually necessary to drill for and produce oil and gas. Essentially, this rule will cause substantially more disturbance in some state forests than necessary to produce oil and gas, and will increase production costs in all state forests.

5. The Proposed Rules Will Create a System of Gravel Roads Throughout State Forests.

Section 11.5 of the proposed rules provides: “Where road slope is such that vegetation cannot be maintained or ruts persist, rock, and if necessary, fiber matting must be used.” Normal procedure to correct rutting is to use a dozer blade to level roads, but this is prohibited practice under proposed rule Section 11.4 of § 58-35-11. Ruts occur in well roads. Even mountain bicycle riding puts ruts in well

roads. Under the proposed rules, ruts will persist, and it will be necessary to use fiber matting and gravel to prevent ruts on substantially all roads, including existing roads, at potentially unbearable cost. The WV Gas Industry is concerned that the state forests where oil and gas operations occur will be filled with a system of gravel roads, and that will not be acceptable in most state forests. We are also concerned that maintenance costs under the proposed rules will be cost prohibitive.

6. The Proposed Rules Exceed Legislative Authorization

The proposed rules are promulgated pursuant to Enrolled Senate Bill 460 (copy attached), which authorizes rules regarding advance notice for non-emergency access to private oil and gas property located in state forests. Senate Bill 460, which is less than one page long, contemplated public notice before a well work permit application, agency notice before new roads were constructed, and more simple notice before regular maintenance. Notice with the right to comment is all that is contemplated by Senate Bill 460. Nothing in Senate Bill 460 even hints that the bill gives Natural Resources the right to prevent access or promulgate rules regulating oil and gas operations, nor to rewrite oil and gas permitting and maintenance rules that Natural Resources did not promulgate and does not administer. From Section 1.1 entitled "Scope," through the notice provisions and the seventy two separate Conditions of Access, the proposed rules vastly exceed the legislative authority granted by Senate Rule 460. Almost all of the proposed rules are objectionable in one respect or another.

7. The Fiscal Note Fails to Comply with the Administrative Procedures Act

The West Virginia Administrative Procedures Act ("APA") requires that proposed legislative rules include "a fiscal note containing all information included in a fiscal note for either house of the Legislature and a statement of the economic impact of the rule on the state or its residents." W. Va. Code § 29A-3-11(a)(4). The fiscal note provided with the proposed rules includes only a summary statement that the total cost of the new regulatory program will be \$2,000 annually. This is a very low cost for such a sweeping regulatory program. The WV Gas Industry is concerned that the expenses will be considerably higher. More importantly, the fiscal note fails to address the economic impact of the new regulatory program on the state's residents. As discussed above, because this is an entirely new regulatory program, there will be significant economic impact to the state's residents that own oil and gas property located in state forests. The regulations are likely to reduce tax revenue. The APA requires that Natural Resources quantify and report this economic impact.

II. WV GAS INDUSTRY'S ALTERNATIVE RULES TO IMPLEMENT SB 460

In lieu of focusing on the many objections the WV Gas Industry has to the proposed rules, the WV Gas Industry submits the following Alternative Rules, which are consistent with Senate Bill 460.

TITLE 58
LEGISLATIVE RULE
DIVISION OF NATURAL RESOURCES

SERIES 35
RULES FOR NOTICE REGARDING OIL AND GAS WELL WORK,
NEW ROAD CONSTRUCTION,
AND ROAD MAINTENANCE IN STATE FORESTS

§58-35-1. General

1.1 Scope. – This legislative rule governs the notification required by operators drilling for and producing oil and gas in state forests when apply for well work permits, constructing new access roads, or performing maintenance on existing roads.

1.2 . Authority. – W.Va. Code 20-5-22.

1.3 . Filing Date. – July 27, 2007

1.4 . Effective Date. -- _____

§58-35-2. Publication Notice for Well Work Permit.

2.1 The Director of the Division of Natural Resources, Division of Forestry and the Office of Oil and Gas shall provide postal and e-mail addresses, and facsimile and telephone numbers, for purposes of receipt of the notices provided herein.

2.2 The publication required by W. Va. Code §20-5-22(a) to appear in a qualified newspaper at least sixty (60) days prior to submitting an application for a well work permit shall include:

2.2.1. The name of the state forest;

2.2.2. The county in which the proposed work will take place;

2.2.3. The name and address of the operator;

2.2.4. The proposed well location by G.P.S. coordinates or reduced copy of the plat filed with the Office of Oil and Gas.

2.3 The publication notice shall identify a postal and e-mail address where the Director of the Division of Natural Resources will accept public comments filed prior to the date of filing of the operator's application to the Department of Environmental Protection for a well work permit.

2.4 The permit applicant shall send a copy of the publication notice to the Director of the Division of Natural Resources, the Division of Forestry, the Office of Oil and Gas, and the state forest superintendent.

2.4.1. The state forest superintendent referred to in these rules shall mean the superintendent of the state forest where the proposed work will occur. The state forest superintendents will provide the Office of Oil and Gas current addresses and telephone numbers for receipt of notice under these rules.

- 2.5. Within 14 days of receipt, the Director of Natural Resources may post the publication notice on the agency's web site, and e-mail the name of the publication newspaper and availability of the publication notice on the web site to every person or entity that has requested such notice and provided an active e-mail address.

§58-35-3. Notice of New Road Construction.

- 3.1. The notice of new oil and gas road construction required by §20-5-22(b) to be provided to the Director of the Division of Natural Resources, the Division of Forestry, and the state forest superintendent at least forty-five (45) days before the application for the well work permit is filed shall include:
 - 3.1.1. A topographical map with the proposed road location sketched on the map;
 - 3.1.2. The proposed soil erosion and sediment control plan for the road required by the Office of Oil and Gas.
- 3.2. Written notice may be by fax, hand delivery, or first class mail, return receipt requested;
- 3.3. Within 14 days of receipt, the Director of the Division of Natural Resources may post the new road construction notice on the agency's web site, and e-mail notice of the availability of the notice on the web site, to every person or entity that has requested such notice and provided an active e-mail address.

§58-35-4. Notice of Maintenance.

- 4.1. The notice of maintenance of existing access roads required by §20-5-22(b) to be provided except in the event of emergency to the Director of the Division of Natural Resources, Forestry, and the state forest superintendent five (5) days before motorized equipment is to enter the state forest shall include:
 - 4.1.1. A general description of the maintenance to be performed;
 - 4.1.2. A general list of the motorized equipment to be used;
 - 4.1.3. The name of the entity or individual engaged to perform the maintenance;
 - 4.1.4. The address and telephone number of the entity or individual who will supervise the maintenance;
 - 4.1.5. The date the maintenance is expected to begin;
 - 4.1.6. An estimate of the time the maintenance will take.
- 4.2. The notice of maintenance may be given by fax, hand delivery, first class mail return receipt requested; e-mail or by actual telephone communication with the person to receive the notice or their agent at least five (5) days prior to entry.

§58-35-5. Comments and Notices

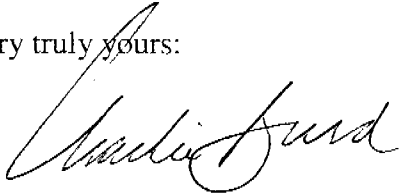
- 5.1 The Director of the Division of Natural Resources shall forward copies of all comments received to the Director of the Office of Oil and Gas and the well operator, together with any

recommendations the Director of the Division of Natural Resources may have regarding the notice, comments and work proposed.

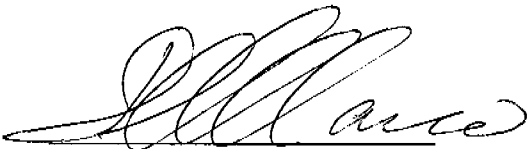
III. CONCLUSION

The WV Gas Industry respectfully requests that the purposed rules be withdrawn and the Alternative Rules submitted above adopted. We appreciate the opportunity to comment on the proposed rules.

Very truly yours:



Charles Burd
Executive Director
The Independent Oil and Gas Association of West Virginia, Inc.



Nicholas "Corky" DeMarco
Executive Director
West Virginia Oil and Natural Gas Association

cc: Frank Jezioro, Director, West Virginia Department of Natural Resources
James Martin, Chief, West Virginia Office of Oil and Gas
Charles "Randy" Dye, Director, West Virginia Division of Forestry

**ENROLLED
COMMITTEE SUBSTITUTE
FOR**

Senate Bill No. 460

(Senators Foster, McCabe, Sprouse, Wells and Stollings, *original sponsors*)

[Passed March 8, 2007; in effect ninety days from passage.]

AN ACT to amend the Code of West Virginia, 1931, as amended, by adding thereto a new section, designated §20-5-22, relating to providing notice of new road construction and road maintenance for access to gas and oil wells in state forests; requiring a public comment period; establishing notice criteria; and requiring the Director of the Division of Natural Resources to propose legislative and emergency rules.

Be it enacted by the Legislature of West Virginia:

That the Code of West Virginia, 1931, as amended, be amended by adding thereto a new section, designated §20-5-22, to read as follows:

ARTICLE 5. PARKS AND RECREATION.

§20-5-22. Powers and duties of the director relating to oil and gas access roads on state forests.

- (a) In addition to the requirements of article six, chapter twenty-two of this code, a party applying for the well work permit within a state forest shall publish a Class I-O legal advertisement in compliance with the provisions of article three, chapter fifty-nine of this code in a qualified newspaper at least sixty days prior to submitting an application with the Department of Environmental Protection. The notice shall state that the Division of Natural Resources will accept public comments prior to the party's application to the Department of Environmental Protection and shall give a postal address and an email address where the public may file comments.
- (b) For all new oil and gas road construction proposed in subsection (a) of this section within state forests, written notice shall be provided to the Director, the Division of Forestry and the state forest superintendent by the party applying for the well work permit forty-five days before the application of the well work permit is filed with the Department of Environmental Protection.
- (c) For routine maintenance of the access roads within the state forest, notice shall be provided to the director, the Director of the Division of Forestry and the state forest superintendent by the well operator for maintenance of the well access road five days before the motorized equipment is to enter the state forest except in the event of an emergency.
- (d) The Director of the Division of Natural Resources shall propose emergency and legislative rules in accordance with article three, chapter twenty-nine of this code in consultation with the Department of Environmental Protection and the Division of Forestry that set forth the conditions upon which the permittee may access the land for the purpose of well work in a state forest as permitted by law.

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 17, 2007 9:21 AM
To: Ken Caplinger
Subject: FW: Oil and gas drilling rule

From: Dan Styer [mailto:Dan.Styer@oberlin.edu]
Sent: Sat 7/14/2007 3:02 PM
To: West Virginia State Parks
Subject: Oil and gas drilling rule

Daniel F. Styer
110 Woodhaven Place
Oberlin, Ohio 44074

14 July 2007

Kenneth K. Caplinger, Acting Chief
Parks and Recreation Section
Division of Natural Resources
Building 3, Room 714, Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305-0662

Dear Chief Caplinger,

I am writing to support the proposed new rule for oil and gas drilling in State Forests. Although I am not a West Virginian, I visit regularly to go backpacking. I am holding a family reunion in West Virginia next June to celebrate my mother's 80th birthday.

I particularly commend the prohibition on clearing trees beyond what is needed for the roadbed. This practice supports the growth of invasive exotic species and also of one nasty native: poison ivy!

Sincerely,
Dan Styer

7/19/2007

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 17, 2007 9:21 AM
To: Ken Caplinger, Dave Lombardo; Kanawha State Forest
Subject: FW: Proposed rules for oil and gas drilling

From: John Slocomb [mailto:jslocomb@prodigy.net]
Sent: Sun 7/15/2007 12:04 AM
To: West Virginia State Parks
Subject: Proposed rules for oil and gas drilling

DNR-- As a user of WV forests, I strongly support the DNR's proposed rule giving greater protection to state forests, and Kanawa State Forest in particular, from oil and gas drilling. These are beautiful forests and there should be no drilling activity, period. However, the new rule does give some added protection, and I thank the WV DNR for showing sensitivity in this area, working with and for citizens to protect WV state forests. - Jack Slocomb jslocomb@prodigy.net

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 17, 2007 9:21 AM
To: Ken Caplinger
Subject: FW: drilling rules

From: Robert Browning [mailto:bobbrowning987@yahoo.com]
Sent: Sun 7/15/2007 5:47 AM
To: West Virginia State Parks
Subject: drilling rules

Please make the rules MORE protective of our enviornment. Once nature is abused for the usual temporary profit, we aren't as attractive. Think long term- take pride.

TV dinner still cooling?
Check out "Tonight's Picks" on Yahoo! TV.

Bob Beanblossom

From: West Virginia State Parks
Sent: Tuesday, July 17, 2007 9:20 AM
To: Ken Caplinger
Subject: FW: new drilling rules

From: Vickie Wolfe [mailto:vwolfe@worldnet.att.net]
Sent: Sun 7/15/2007 6:04 PM
To: West Virginia State Parks
Subject: new drilling rules

Because I am concerned about the abuses of oil and gas drillers in state forests, I SUPPORT THE NEW DNR RULES FOR DRILLING IN STATE FORESTS. In addition, I think that all revegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road.
Vickie Wolfe
South Charleston

Vickie L. Wolfe, Ph.D.
510 Rosemont Avenue
South Charleston, WV 25303-2126
PHONE: (304) 744-8777
E-MAIL: vwolfe@worldnet.att.net

Think coal-derived electricity is "cheap"? Visit
http://www.appalachian-center.org/media/2006/vanity_fair_may06.pdf

~~~~~  
When he was 10, Ralph Nader said, he came home from school and his father, a restaurant owner, demanded of him, "Well, Ralph, what did you learn today? Did you learn how to think? Or did you learn how to believe?"

**Bob Beanblossom**

**From:** West Virginia State Parks  
**Sent:** Tuesday, July 17, 2007 9:20 AM  
**To:** Ken Caplinger  
**Subject:** FW: drilling rules

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**From:** JStone5532@aol.com [mailto:JStone5532@aol.com]  
**Sent:** Sun 7/15/2007 6:35 PM  
**To:** West Virginia State Parks  
**Subject:** re: drilling rules

Attention: Mr. Kenneth K. Caplinger, Acting Chief, Parks & Recreation Section of DNR:

Dear Mr. Caplinger:

I hope that the Department of Natural Resources will implement the proposed new gas and oil drilling rules for all State Forests including using native plants during reclamation and doing a complete inventory of animals and plants before construction of any well site or well road. These rules, if properly adhered to, will assure that future generations will have the benefit of these wonderful areas. I hope that the DNR will not only put these new rules into practice but will carefully monitor their observance by oil and gas companies. Thank you.

Kathryn A. Stone  
26 Birch Tree Lane  
Chas., WV 25314

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**Bob Beanblossom**

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**From:** West Virginia State Parks  
**Sent:** Tuesday, July 17, 2007 9:19 AM  
**To:** Ken Caplinger  
**Subject:** FW: new rules re gas wells

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**From:** bph [mailto:bph@frontiernet.net]  
**Sent:** Sun 7/15/2007 7:54 PM  
**To:** West Virginia State Parks  
**Subject:** new rules re gas wells

I support the new, proposed rules for gas wells in State forests. I hope they are signed into law.  
R. Phipps  
Shepherdstown WV

7/19/2007

**Bob Beanblossom**

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**From:** West Virginia State Parks  
**Sent:** Tuesday, July 17, 2007 9:19 AM  
**To:** Ken Caplinger; Dave Lombardo; Kanawha State Forest  
**Subject:** FW: Oil and Gas Drillers rule

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**From:** Judith Cain [mailto:js Cain5@hotmail.com]  
**Sent:** Sun 7/15/2007 10:34 PM  
**To:** West Virginia State Parks  
**Subject:** Oil and Gas Drillers rule

I am concerned about the abuses of oil and gas drillers in State Forests generally, and Kanawha State Forest in particular. The rule greatly improves the protections that Kanawha State Forest and all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule. However, I think that all revegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road.

***Judith S. Cain***

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[Missed the show? Watch videos of the Live Earth Concert on MSN.](#)

**Bob Beanblossom**

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**From:** West Virginia State Parks  
**Sent:** Tuesday, July 17, 2007 9:18 AM  
**To:** Ken Caplinger; Dave Lombardo; Kanawha State Forest  
**Subject:** FW: Gas and Oil Drilling Rules for State Forests

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**From:** Marilyn McGeorge [mailto:mandw@suddenlink.net]  
**Sent:** Mon 7/16/2007 12:34 PM  
**To:** West Virginia State Parks  
**Cc:** John Smithson; Martinjul@aol.com  
**Subject:** Gas and Oil Drilling Rules for State Forests

"I am concerned about the abuses of oil and gas drillers in State Forests generally, and Kanawha State Forest in particular because I hike in West Virginia and especially in the Kanawha State Forest. The rule greatly improves the protections that Kanawha State Forest and all State Forests will receive. I support all of the good new requirements that the Department of Natural Resources has in the rule. However, I think that all revegetation should be done with native plants, and not with non-native seeds. And I think a full inventory of the animals and plants should be done before the construction of any well site or well road."

I am especially concerned that I occasionally smell mercaptan in the forest which probably comes from a leak in the existing gas lines. There should be inspection and maintenance procedures in place for existing and future gas lines that drastically reduce the possibility of gas line rupture and possible fire or explosion.

Marilyn McGeorge

**Bob Beanblossom**

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**From:** West Virginia State Parks  
**Sent:** Thursday, July 26, 2007 8:53 AM  
**To:** Ken Caplinger  
**Subject:** FW: State Forest Rules

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**From:** robert marshall [mailto:woodhavenwva@aim.com]  
**Sent:** Wed 7/25/2007 6:39 PM  
**To:** West Virginia State Parks  
**Subject:** State Forest Rules

Dear Mr. Caplinger, I am writing as a native West Virginian and frequent State Forest user, to urge you to adopt fully the proposed rules regarding mineral extraction on our valuable public forests. I have witnessed the destruction that can be done by unregulated and unsupervised oil and gas drillers, and believe we must develop strong rules for acting on the State Forests on the behalf of all West Virginians. Please protect the Forests from future abuse by enacting all the rules proposed by your agency, additionally requiring the use of only native plants and seed for revegetation, and a full and complete inventory of all flora and fauna prior to any new extractive activities... Thank You, Robert W. Marshall, D.V.M. 886Z Divide Ridge, Kenna W.V. 25248

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7/26/2007

J: Bob B  
FMT / Huc C  
7/26/07

Waller C. Hardy, III  
Hardy Oil & Gas, LLC  
PFR WV Resources, LLC  
P. O. Box 75352  
Charleston, WV 25375-0352

**Parks & Recreation**

JUL 26 2007

**Deputy Chief's Office**

July 25, 2007

Kenneth K. Caplinger, Acting Chief  
Parks and Recreation Section  
Division of Natural Resources  
Capitol Complex, Bldg. 3, Room 714  
1900 Kanawha Boulevard, East  
Charleston, WV 25305-0662

RE: Rule 58CSR35

Dear Mr. Caplinger:

As you have requested, I am writing to comment on the proposed Series 35, Rules for Notice Regarding Oil and Gas Well Work, New Road Construction, and Road Maintenance in State Forests as proposed by the DNR.

**I am adamantly opposed to the adoption of the proposed rules.**

My family owns 12,000 acres of mineral interests in Kanawha County, much of which underlies Kanawha State Forest. We have owned this property since February 10, 1928, and have dutifully paid taxes on the property, as assessed, and when due. A significant amount of the property that we own in Kanawha State Forest is leased to Equitable Resources. The proposed rules will significantly reduce the value of our property.

The rules that have been proposed are a result of legislation that was passed in 2007 by the West Virginia Legislature. The legislation was in direct response to a mistake made by a contractor operating on behalf of Equitable Resources in Kanawha State Forest last summer.

During the construction of a properly permitted drilling site access road, it was discovered that the road was being built in the wrong location. Although the drilling site and an access road to it were approved by the DEP Office of Oil & Gas, no one challenged the initial tree removal operation, or raised questions about the location of the access road being developed. The Forest Superintendent (the surface owner's on-site representative), the Office of Oil & Gas, and Equitable Resources all failed to recognize the mistake, and work continued at the wrong location for several days.

Kenneth K. Caplinger, Acting Chief

July 25, 2007

RE: Rule 58CSR35

Page 2

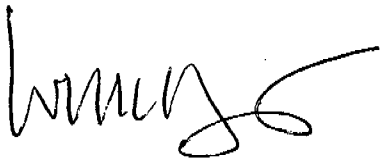
Adopting the proposed rules will not prevent future mistakes. The mistake that was made in Kanawha State Forest last summer was made even though every step of the prescribed drilling site approval and permitting process was followed, including the opportunity for review and comment by the surface owner, the West Virginia Department of Natural Resources.

Is it fair to subject the owners of fully taxed, private property that happens to be located inside a state forest to rules that are more restrictive than the rules that apply to other West Virginia property owners? If the proposed rules are indeed fair and appropriate in managing the conduct of road construction and road maintenance to oil and gas wells, shouldn't they be applied uniformly across all of West Virginia?

**I believe that changing the existing permit approval and well site maintenance rules that apply to the property that I own inside Kanawha State Forest will decrease the market value of my property, and would be tantamount to the improper and uncompensated seizure and condemnation of my property. I urge you to reject the proposed rules.**

Please feel free to contact me if I may provide any additional information or service.

Sincerely,

A handwritten signature in black ink, appearing to read 'Waller C. Hardy, III', with a stylized flourish at the end.

Waller C. Hardy, III  
Hardy Oil & Gas, LLC  
PFR WV Resources, LLC

## Bob Beanblossom

**From:** Ken Caplinger  
**Sent:** Tuesday, July 17, 2007 9:26 AM  
**To:** Bob Beanblossom  
**Subject:** FW:

Gas comment

-----Original Message-----

**From:** West Virginia State Parks  
**Sent:** Tuesday, July 17, 2007 9:20 AM  
**To:** Ken Caplinger  
**Subject:** FW:

**From:** william duty [mailto:wduty31@hotmail.com]  
**Sent:** Sun 7/15/2007 5:43 PM  
**To:** West Virginia State Parks  
**Cc:** Martin@aol.com  
**Subject:**

I do support the rules proposed by the DNR giving much needed protection to West Virginia's State Forests. I also express appreciation to the WV Legislature for taking a larger and longer look at the abuses which have taken place in our forests. I trust my own legislative delegation, Senator Chafin, Delegates Kominar and HK White have been beneficial in this endeavor.

Thank you,

Bill Duty, former West Virginia Association of Conservation District Supervisor

Bill Duty

i'm making a difference. Make every IM count for the cause of your choice. Join Now.

7/19/2007