H. MORGAN GRIFFITH
9TH DISTRICT, VIRGINIA

COMMITTEE ON
ENERGY AND COMMERCE
SUBCOMMITTEES:
ENERGY AND POWER
OVERSIGHT AND INVESTIGATIONS
www.morgangriffith.house.gov

Letter# 251

Congress of the United States
House of Representatives
Washington, DC 20515–4609

1108 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
25–3861 PHONE
225–0076 FAX

ST MAIN STREET
DON, VA 24210
(276) 525–1405 PHONE
(276) 525–1444 FAX

17 WEST MAIN STREET
CHRISTIANSBURG, VA 24073
(540) 381–5671 PHONE
(540) 381–5675 FAX

June 14, 2011

George Washington National Forest
Forest Plan Revision
5162 Valleypointe Parkway
Roanoke, VA 24019

To whom it may concern:

I am writing in regards to the U.S. Forest Service's recently released draft Environmental Impact Statement for the George Washington National Forest (GWNF), which includes a proposal to close 160 miles of roads located within the forest boundaries.

As you are aware, these roads provide vital access to recreational offerings within the GWNF and, if closed, would have a burdensome impact on those who engage in outdoor recreational activities, such as hunting and fishing. While I share your concerns regarding the protection and preservation of the GWNF, I do not support wholesale road closures that would restrict access for law-abiding individuals that derive enjoyment from these areas, the vast majority of which, practice good environmental stewardship.

I understand there is a 90 day public comment period on this proposal. As you consider the public's feedback, I respectfully request that you take these comments into consideration. Please do not hesitate to contact me or Christin O'Brien from my staff in my Washington, D.C. office at 202-225-3861 if you have any questions regarding this issue. I remain

Sincerely yours,

H. MORGAN GRIFFITH
Member of Congress

PRINTED ON RECYCLED PAPER

Received in person at Fairfax Public Workshop June 20, 2011

Letter# 252

Recreation vs. resource harvesting jobs

1. Recreation jobs created should not only include the direct recreation jobs created in the national forests, they must also include the indirect jobs created to serve recreation users, visitors – e.g., the provision of food, lodging and provision of things they will buy. After all, according to the World Tourism Organization, tourism is the world's biggest industry – recognizing that most of the time we have to spend is free time, and due to the fact that much of the time, and most of the spending, of tourists and recreation users, is spent in the communities that serve them.
2. The permanence and significance of these jobs – the community-building aspects, the property tax aspects, must be recognized, as opposed to the shorter term and intermittent nature of resource extraction jobs.
3. The fact that resource harvesting jobs will be occupied by non-locals who migrate in for the jobs and migrate out after the resource harvesting, should be recognized.

Wilderness designation

The plan adopted must include protection of as much of the natural world as is possible – designation of as much land as Wilderness as is possible:

1. To enable natural processes to occur as widely as possible,
2. To protect our natural world for future generations,
3. To enable nature to adapt to global climate change, and
4. To enable ecoregion research and learning to occur to determine what we need to do to preserve our natural world, both inside and outside the forest boundaries.

Recreation

Society needs more opportunities for outdoor recreation to address:

1. Nature Deficit Disorder – if we do not learn about, and experience the natural world as we grow-up we will not gain an appreciation that all life on earth depends upon our natural world to thrive and survive.
2. Obesity and Overweightedness – Two-thirds of us are overweight, one-third of us are obese.

We need accelerated varieties of opportunities to get out-of-doors to experience nature in these national forests. This need should be recognized and the opportunities discussed.

Global Climate Change

There is no more important topic facing society than global climate change. We just have to look to the weather patterns and climate changes and see how it is affecting our world – the flooding in the Midwest, the forest fires in the Southwest, for example. National forests are prominent places where global climate changes are being experienced. Learning about it, and dealing with it, must be the number one priority of our natural lands, our national forests, these national forests.

Alternative Energy sources

1. All activity in the national forests must be energy neutral.
2. Opportunities should be developed to provide wind turbines and solar panels – opportunities that protect and

enhance the other legitimate forest uses – as widely as possible.

The number one priority for forest management must be protection of our natural world. The present highest priority is providing a viable natural world for use, our children and grandchildren in this period of global climate change. We should look at global climate change and the new natural – as something to accepted – mitigated yes – but global climate change will change our natural world and we – along with the other species that make up our natural world – must adapt to it. These national forests are prime places to learn what nature is doing – to teach us what we must do to provide a livable and enjoyable world for society.

John F. Byrne
2801 Oakton Manor Court
Oakton, VA 22124

Chair, National Parks and Monuments Team
Sierra Club

Adjunct Professor
George Mason University

Letter# 253

COUNTY OF AUGUSTA, VA.
BOARD OF SUPERVISORS

LARRY C. HOWDYSHELL
North River

GERALD W. GARBER
Middle River

TRACY C. PYLES, JR.
Pastures

JEREMY L. SHIFFLETT
Beverley Manor

WENDELL L. COLEMAN
Wayne

NANCY TAYLOR SORRELLS
Riverheads

DAVID R. BEYELER
South River

PATRICK J. COFFIELD – COUNTY ADMINISTRATOR
AUGUSTA COUNTY GOVERNMENT CENTER
P.O. BOX 590, VERONA, VA 24482-0590
(540) 245-5610 FAX (540) 245-5621
coadmin@co.augusta.va.us

11-074
June 23, 2011

Elwood Burge, District Ranger
Forest Service
North River District
401 Oakwood Drive
Harrisonburg, VA 22801

Dear Elwood:

The Board of Supervisors at its Wednesday, June 22, 2011 meeting voted to reaffirm its previous position to "oppose" expansion of Wilderness Areas in Augusta County. As you recall, the Board previously outlined its opposition and concerns in a letter dated September 25, 2009 (ATTACHED).

Your assistance in having the "Draft Plan" modified to reflect the feelings of the Board would be greatly appreciated.

Sincerely,

Patrick J. Coffield, County Administrator

PJC/jts
Enclosure

cc: Honorable James Webb, US Senate
Honorable Mark R. Warner, US Senate
Honorable Robert W. "Bob" Goodlatte, US House of Representatives

COUNTY OF AUGUSTA, VA.

BOARD OF SUPERVISORS

'RY C. HOWDYSHELL
North River

TRACY C. PYLES, JR.
Pastures

NANCY TAYLOR SORRELLS
Riverheads

JEREMY L. SHIFFLETT
Beverley Manor

GERALD W. GARBER
Middle River

WENDELL L. COLEMAN
Wayne

DAVID R. BEYELER
South River

PATRICK J. COFFIELD - COUNTY ADMINISTRATOR

AUGUSTA COUNTY GOVERNMENT CENTER
P.O. BOX 590, VERONA, VA 24482-0590
(540) 245-5610 FAX (540) 245-5621
coadmin@co.augusta.va.us

08-169
September 25, 2008

VIA FAX

The Hon. James Webb
U.S. Senate
Russell Senate Office Building, Courtyard
Washington, DC 20510

The Hon. John W. Warner
U.S. Senate
225 Russell Building
Washington, DC 20510

The Hon. Robert W. Goodlatte
U.S. House of Representatives
2240 Rayburn House Office Building
Washington, DC 20515

Gentlemen:

The George Washington National Forest occupies approximately 196,000 acres of land in Augusta County, which is more acreage than any other county in Virginia. We also have 16,392 acres of wilderness, which is more than any other county has in Virginia. The George Washington National Forest is in the process of revising its forest plan. The last revision was done in 1993.

On September 21st, our Board of Supervisors received a presentation by the Forest Service concerning the updated plan. The Forest Service is receiving input from the public at this time. The plan maps that were provided to us show another 99,000+ acres as potential wilderness areas in the County. These areas (as shown on the map) are adjacent to private land, adjacent to public roads, and would make up approximately 51% of the 196,000 acres within the county as potential wilderness areas.

There is also a potential wilderness area that incorporates Elliott's Knob. This location contains a major communication facility that a number of different government agencies use to provide coverage for emergency services, public TV, and other communication services.

The Board outlined some concerns about additional wilderness area in Augusta County:

1. In case of a forest fire, there is no way to fight a fire in a wilderness area. If the wilderness area is adjacent to private land, it becomes a real problem to County property owners.

2. Access: In this day and time when the baby boomers are reaching retirement, they may not be able to access the wilderness area by foot. Many individuals enjoy traveling into the National Forest with 4-wheel or other types of transportation that can assist them in enjoying the beautiful mountains and forest.

3. And finally, once an area is designated wilderness, it cannot revert back to any other use.

The decision on wilderness designation is left in the hands of Congress, and Congress needs to understand all the issues involved with wilderness designation.

At its September 24th meeting, the Board of Supervisors took action to send this letter and oppose any additional wilderness designation within Augusta County.

I would like to personally thank you for your service to the Commonwealth of Virginia and, if we can be of assistance to you, please do not hesitate to contact me.

Sincerely,

David R. Beyeler, Chairman
Augusta County Board of Supervisors

cc: Elwood Burge, District Ranger
North River Ranger Dist., Harrisonburg VA

Letter# 254

John P. Cone, Jr.

Citizens Task Force

Citizens Environmental Council

3906 Shawnee Tr.
Salem, VA 24153

June 25, 2011

George Washington National Forest

Forest Plan Revision

5162 Valleypointe Parkway

Roanoke, VA 24019

COMMENTS ON THE APRIL 2011 DRAFT FOREST PLAN REVISION

GENERAL

After reading and scanning the 1,307 pages of the Draft Environmental Statement, the Land and Resource Management Plan, the Summary and the Appendices, the first review comment must be to compliment the technical staff for their exhaustive effort to document the many resources contained by the George Washington National Forest.

That being said, the second review comment inescapably is that the seven plans selected for evaluation are strongly skewed toward a preconceived goal; that to save the forest, it must be cut down, piece by piece. It is hard to believe that this goal is not economically driven. For the last twenty five years the forest management team has been content to conduct timber operations in a relatively restrained manner. Now, apparently, economic pressures have returned to cause management to return to the view that the National Forest can be treated in a manner similar to a corn field. The ground is to be plowed, harrowed and planted, and in due time the crop is ready for harvest. This view was publicly stated by a forest manger in 1987.

The problem with this approach is that the forest is not a corn field. The top soil is thin and easily erodible. Steep slopes on mountain sides make erosion a constant threat, as the plan's cover so well illustrates by the 1910 photo. Nowhere in the plan is there any suggestion of preservation of top soil, re-fertilization of the soil or replanting of the crop. The crop is supposed to replant itself by stump sprouts with no help from management. Page G-1 of the Draft Forest plan lists the Timber Research Need as "Methods to enhance the regeneration of … oak …" This is an admission that regeneration from stump sprouts is not a satisfactory method of regeneration. Also, since one of the most important goals of the Draft EIS is to enhance diversity, why is oak the only species of interest?

It is an undeniable fact that stump sprout regeneration produces trees of increasingly poor quality. Stump rot condemns many to an early death. Sprouts compete with each other and mature improperly with no one to prune them. The result is a banquet for the Gypsy Moth and a place of refuge for many undesirable species. The Forest Service is treating its resource like an inherited bank deposit from a rich uncle, trying to live on the interest, but continually expending

more than the income and gradually depleting the capital. This is not "Caring for the Land and the People."

THE PLANS

The general review of the plans leads inevitably to the conclusion that they were generated with the determination to increase timber production to the maximum without incurring excessive public dissent.

- Plan A: The current plan which is not producing sufficient wood product.
- Plan B: Designed to produce the desired wood product.
- Plan C: Designed to demonstrate that conservation is not viable.
- Plan D: Designed to show that Plan B is not extremely biased toward timber harvesting.
- Plan E: An attempt to compromise Plans B and C.
- Plan F: An attempt to compromise Plans B and C.
- Plan G: Plan B with specific public benefits to ease the pain of seeing the bulk of the forest slowly nibbled away..

This view of the plans is spelled out on page 1-12 of the Draft EIS under "Timber Harvest – Background:' "Some people strongly state that the forest should reduce the acres suitable for harvest ... due to adverse impacts to: water quality, competition with private lands, air quality, scenery, ecological habitats ... and a wide variety of other ecological/environmental resources ... Other people strongly support an expanded timber program ..."

The view is borne out by an examination of the Draft Forest Plan – Alternative G to see how much of the total forest not specifically preserved for special use is marked "Management Prescription 13: Mosaics of Habitat Suitable for Timber Production." Many communities adjacent to the Forest are going to find their local environment considerably altered in the future if this plan is adopted.

Under "Areas Recommended for Wilderness Study", Plan C designates 386,768 acres and Plan G designates 20,314 acres. (See pages S-12 and S-13 of the Draft Plan Summary.) Plan G is 5% of Plan C. This one item will greatly affect recreational opportunities for the public. What factors were used to create this arbitrary and out of balance ratio?

TIMBER MANAGEMENT

During past planning, the Forest Service has been asked to document what percent of the timber harvest is suitable for use as saw logs for lumber or veneer and what percent is to be chipped or ground up for building board or paper. The Service has refused this request on the grounds that it has no way of knowing. No personnel are tasked with the assignment to record the difference between viable saw logs and unsuitable material. Since the Forest's timber management is subsidized by the United States taxpayer, the public is entitled to know the answer to this question. The public is entitled to make a decision regarding the cost/benefit of harvesting material that can be produced by other means such as recycling paper.

Page 1-10 of the Draft EIS discusses forest health and the need to avoid the loss of native biodiversity. Page 1-12 states that, "Timber harvest is one of the tools used to manage vegetation on the forest to create a diversity of habitat conditions." Page 3-258 of the same document states

that, "Salvage operations will be continuing as we attempt to salvage the dying trees prior to the oak losing their capability to stump sprout and regenerate the next stand to a desirable oak component to meet future conditions." These are contradictory statements. In fact, the Service is attempting to produce a monoculture of oak. Oak is the species most susceptible to the Gypsy Moth and by concentrating on producing oak, the Service is making the forest more and more vulnerable.

On June 15, 2011, National Public Radio reported a twenty year experiment by the Smithsonians Conservation Biology Institute in Front Royal, Virginia. A 10 acre tract of forest was fenced off to exclude white tail deer and left to grow by itself. The result was biodiversity of 20 to 30 tree and plant species which planted and grew by themselves. Moreover the result was a complete profile of ages. The Forest's Plan C most closely resembles this experiment.

The Forest Service continually talks about mature oak die back and the need to harvest trees that are dying anyway. This ignores the fact that oak die back is the result of diminished nutrition. In the future, as the practice of self generation continues with constant loss of viable soil for plant growth, die back will occur at a younger age.

Page 3-186 of the Draft EIS states that, "Non native (invasive) plants are known to occur across Southern and Appalachian forests, often accounting for 25% or more of the documented flora." Twenty-six of these invasive species are then listed. "The plan objective is to protect native populations of plants ... minimizing effects to native species and natural communities is a priority." Page 3-266 of the same document states that 900 acres of land would be clearcut and 21,300 acres would be shelterwood cut in both Plans B and G. A total of 34,000 acres would be cut in both Plans B and G, the most of any plan except Plan D. The Service needs to acknowledge that timber harvesting, especially clearcutting and shelterwood cutting open up the way for invasive species to enter the forest. The Forest Service refers to "early successional" species occurring after a timber harvest. "Early successional" equals a high percentage of "invasive." The Service is providing habitat for a forest of invasive species.

Page 1-12 of the Draft EIS refers to the "benefits to local economies" produced by timber harvesting. If the Service were really serious about benefitting local economies, it would undertake a program to replant trees seedlings following a timber harvest. If the wood product is really that valuable, the consumer should be paying for the regeneration. This would place the management of the forest on an equal footing with private forestry which now follows this practice. It would generate income for local labor. It would be the best counter to invasive species. It would greatly reduce soil loss on steep slopes. It would be caring for the forest instead of continually raping it. This is the true meaning of "Caring for the Land and the People".

The Draft EIS Appendices contain a magnificently complete Species Diversity Report, complete in every detail, except for one item. Trees. Other than the broad brush discussion on Pages 3-55 through 3-59 of the Draft EIS pertaining to animal habitat, there is no mention of tree diversity in the Plan. Is the diversity of tree species of no interest to the Forest Service? Is tree diversity affected by soil type, or by topography, or by elevation? Some species are disappearing from the forest due to environmental factors. Are these of no interest? Some species may well be under stress due to timber harvesting activity. Are these of no interest? Why is there no estimate of existing and future stands of all the various species? Are any that are under stress worth saving?

WATER

It is noteworthy that the Forest Service has now been able to identify 11% of its area as karst geology. The distribution of karst terrain throughout the forest is very significant. This is a major factor in Virginia's ground water supply. Page 3-48 of the Draft EIS correctly states that karst groundwater systems are very complex. Although they are poorly understood, dye tests that have been conducted have clearly indicated that the ground water from karst often travels very rapidly and for far distances. The existence of unexplored karst bedrock is probably responsible for this.

It is to be hoped that the Service will continue to prohibit this groundwater from becoming contaminated by oil and gas activity which could not only affect local water sources but could also affect sources at great distances from the forest. This is not a non-significant issue.

Page 3-40 of the Draft EIS states, "Streamflow represents a 'leftover' of precipitation minus evaporation and water use by growing vegetation." This statement leaves out a major component of water use, namely absorption. This is an important component because forest management can do a great deal to increase absorption on the land, both in karst areas and non karst areas. Maximizing water absorption in the soil is a goal greatly to be desired. This can be accomplished first by designing harvest operations in a manner conforming to land surface contours. This has often been ignored in the past where planning has been designed to assist chain hoist and cable harvesting. Also, cleanup operations after a harvest can require the distribution of left over material in a manner that will retain water.

Page 3-9 of the Draft EIS correctly note the disaster of August 19 1969 which severely impacted the GWNF. It fails to note that much of the debris which affected the public was the result of timber harvesting that was poorly planned and poorly administered. Cleanup operations following a harvest are an important expense that should be addressed in every timber sale.

A timber harvest on the national forest is like any construction project under contract. The project is specified, the fee is set, the project is performed and the fee is paid. Any construction project under contract remits fees as the work is performed, minus a retainage which is payable only after the final project has been properly inspected and all requirements have been properly met. This includes complete clean up and proper distribution has been made of the waste. In the past, the Service has not fully lived up to the requirements of project supervision all the way to final completion.

AIR

Pages 3-33 through 3-37 contain an excellent summary of air quality issues affected by the forest. One issue, however, is avoided. Do mature trees produce more oxygen than "early successional species"? If true, then Plan C maximizes the production of oxygen and Plan D minimizes it. Plans B and G are only slightly better than Plan D. The discussion about controlled burning is relevant but pales in comparison to the pollution emanating from coal fired energy production because it is only occasional. If it can avoid a forest wide disaster from a lightning strike or a mismanaged campfire, it is the lesser evil, but it needs to be minimized and carefully planned to form fire barriers.

WILDLIFE MANAGEMENT

The discussion concerning the optimization of the white tail deer population by means of maximizing timber harvesting in order to increase the tree growth edge effect goes back to the last forest planning cycle, if not before. The argument in the 1980's was that the more timber harvest, the more white tail deer would be produced. During the succeeding 20 years, this argument has been proven correct to the point where the deer are becoming a public nuisance in nearby private and public areas.

Private lands adjacent to the forest are visited by deer nightly. VDOT has hired tree removal adjacent to rural roads in an attempt to reduce deer road kill. Urban areas are hiring professional hunters to reduce or eliminate deer populations in parks and vacant property. Deer hunting permits have been increased to include harvesting does and greatly increased numbers of harvest of either sex on private land. Still the deer population increases, almost out of control. And yet the Forest Service, originators of this bounty are complaining of too few deer! The Virginia Department of Game Management records deer kill on the National Forest declining from 14,000 in 1994 to 6,000 in 2010. What is wrong with this picture?

These facts are recognized in the Draft EIS on page 3-106. The Forest Service argues that increasing the amount of browse area on the Forest will attract the deer away from the adjacent private and public lands back to the forest where they belong. This argument is contrary to well established knowledge of animal behavior. The herd has discovered that it can make a good living on private land adjacent to residential areas without the danger of being shot at. There is the added incentive of the need for a dependable supply of water. A much more dependable supply is typically available in valley streams outside the forest boundaries.

The Forest Service timber management has created the deer population problem. More of the same is not going to reduce the problem.

COYOTES

The 1,307 combined pages of the Draft Plan never once mention the word coyote. The eastern coyote is the offspring of the National Forest deer management planning. The question is asked, "Where did the coyote come from? Many myths about private importation exist, but the most probable source is well described in the Virginia Department of Game and Inland Fisheries report "Living With the Coyote in Virginia".

> "On their path to the east the coyote hybridized with timber wolves in the north and red wolves in the south and possibly wild dogs. Thus at 20 to 45 pounds the eastern coyote is bigger than its western cousin. The eastern expansion of the coyote was probably a result of the elimination of its ancient foe the timber wolf and the establishment of the deer herd in the east as a food base."

The coyote very simply followed the easy trail of food and water supply from west to east to the Appalachian mountain chain, then north and south to Virginia. The VDGIF managers and game hunters report that coyote populations have increased from 7 to 9 times their 1997 numbers in the last 12 years. This is a faster rate of increase than the deer population. The relationship between the deer population and the coyote population is spelled out in the VDGIF report.

> "Predator-prey relationships between the white tailed deer and the coyote have been extensively studied. The coyote is a significant predator of deer fawns. Studies in Texas have shown that the coyote's diet consists of 70% fawns during June and July. ... During winter predation again picks up and the deer again become the main diet of coyotes. ... In Maine, food habitat studies showed that white tailed deer made up 50-60% of the coyote's diet, and this predation had the potential to have significant negative effects on the deer herd."

Mother does are now beginning to have their fawns in wooded areas adjacent to residential lands. This is where the Forest Service deer herd has gone. The VDGIF report contains these warnings to the public.

> "Be aware that there have been a few recorded instances of coyotes attacking small dogs on a leash." "

> "Be aware that coyotes in other eastern states have attacked and severely injured small toddlers when left unattended for even a short period of time."

> ""Be aware that coyotes can jump over fences less than 7 feet high and can climb over taller fencing that does not have an outward slanting overhang."

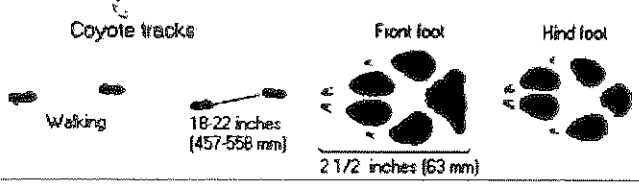
The coyote has demonstrated that it can learn to hunt in packs. If the deer population starts to decrease as the coyote population increases, the coyote will become ever bolder in its search for food. No one has yet asked the question, what happens if the coyote population starts to become a rabies carrier as the raccoon already has? This is clearly a serious issue that the GWNF needs to address in the proposed next 15 year plan. What happens on the forest directly affects its neighbors.

Respectfully submitted,
John P. Core Jr.

Please review the 6 attachments with care.

VIRGINIA DEPARTMENT OF GAME AND INLAND FISHERIES

LIVING WITH THE COYOTE IN VIRGINIA



The coyote population in Virginia continues to become more abundant and is distributed throughout the Commonwealth. To avoid conflicts with coyotes, it is important to understand coyote behavior and to consider the following advice:

❖ KEEP THE WILD IN WILDIFE – ENCOURAGE COYOTE AVOIDANCE BEHAVIOR OF HUMANS

REMOVE ACCESS TO UNNATURAL FOOD SOURCES: Unnatural man-made food sources alter coyote behavior and may result in coyotes becoming tolerant of and dependent on humans. In addition, feeding or unintentionally providing a food source (such as pet food on your porch or in your back yard) over a long period of time may result in coyotes becoming less wary of your presence or actions. **Such behavior may result in coyotes becoming bold and even aggressive towards humans.** If you feed pets in your yard or on your porch, feed only enough food that can be completely consumed by your pet in a short amount of time. Secure garbage cans and lids in order to prevent coyotes from overturning the can for an easy meal.

DEFEND YOUR LIVING SPACE: Tolerating coyotes around your residence may result in coyotes becoming less wary of your presence or actions. **Such behavior may result in coyotes becoming bold and even aggressive around humans.** It is the responsibility of everyone living in a residential community to dissuade coyotes from occupying or using space in areas frequented by humans. When coyotes attempt to extend their living space to include space around your residence, find a safe position that affords you an opportunity to escape an unlikely attack, and yell, throw non-edible objects in the direction of the coyote, or otherwise convey to any "trespassing" animal that it is not welcome in your "space".

❖ AVOID COYOTE PREDATORY AND TERRITORIAL BEHAVIOR

PEOPLE: Approaching any wildlife may provoke an encounter if the animal feels cornered or restricted in movement. This is particularly true of animals that have become accustomed to the presence of humans and their activities as a consequence of being fed, or because of access to a readily available food source such as pet food or refuse in a garbage can or compost pile. **Be aware that coyotes in other eastern states have attacked and severely injured small toddlers when left unattended for even a short period of time. Although the likelihood of such an attack is very remote, never leave small children unattended in areas frequented by coyotes.**

Consider removing habitat that provides protective cover for coyotes and their prey such as small rodents. Modifying such habitat around residential areas will dissuade coyotes from using the space as a part of a territory or home range and will reduce the likelihood of conflicts.

PETS: The territorial nature of predatory coyotes poses a real risk to small, free-roaming dogs and cats. Keep small dogs restrained on a leash when walking them outdoors and avoid walking in areas where coyotes are raising their pups from March – August. **Be aware that there have been a few recorded instances of coyotes attacking small dogs on a leash.**

Small dogs and cats are also vulnerable to attacks by coyotes when tethered outside of your house or even on your porch. Small dogs and cats should be kept in an enclosure when kept outdoors in order to prevent coyotes from attacking and killing a pet animal. **Even though a fence may dissuade coyotes from attacking your pet, be aware that coyotes can jump over fences less than 7-feet high and can climb over taller fencing that does not have an outward slanting overhang.**

LIVESTOCK: Contact the Virginia Department of Agriculture and Consumer Services - USDA Wildlife Services Virginia Cooperative Coyote Damage Control Program at 540-381-7387 to obtain information and assistance on preventing and alleviating coyote damage to livestock or other agricultural products.

THE COMMONWEALTH OF VIRGINIA
VIRGINIA DEPARTMENT OF GAME AND INLAND FISHERIES
P.O. BOX 11104, 4010 WEST BROAD STREET
RICHMOND, VIRGINIA 23230-1104
(804) 367-1000 http://www.dgif.virginia.gov

The Department of Game and Inland Fisheries shall afford to all persons an equal access to Department programs and facilities without regard to race, color, religion, national origin, disability, sex or age. If you believe that you have been discriminated against in any program, activity or facility, please write to: Virginia Department of Game & Inland Fisheries, Attn: Compliance Officer, 4010 W. Broad St., Richmond, VA 23230-1104

Coyote

Impacts Of The Eastern Coyote On Wildlife Populations

Introduction

The Eastern Coyote has only in relative recent times expanded its range to the eastern United States. The coyote has been a significant predator in the west and it will likely prove to have the same impacts in the east.

Historically, the coyote was commonly found in the Great Plains of western and mid-western states. During the last 50 years, expansion of the coyote eastward has come from the northwest and southeast. Today, the coyote occupies every state in the continental United States and ranges from Alaska to the Panama Canal. On their path to the east the coyote hybridized with timber wolves in the north and red wolves in the south and possibly wild dogs. Thus, at 20 to 45 pounds, the eastern coyote is bigger than its western cousin. The eastern expansion of the coyote was probably a result of the elimination of its ancient foe the timber wolf and the establishment of the deer herd in the east as a food base. The coyote is an adaptable animal and there may be more coyotes today than there were in colonial times.

It has been said that the coyote's favorite food is anything they can chew. The coyote is a carnivore that is able to adapt to the available food supply. The coyote is a significant predator of both wildlife species and farmer's livestock. Primary wildlife species that the coyote prey upon are white-tailed deer and small mammals such as rats and mice. Their diet also consists of rabbits, groundhogs, ruffed grouse, turkeys, chipmunks, squirrels, muskrats, fruits, berries, carrion, and the occasional house cat.

While the coyote is a significant predator on wildlife populations, it should be noted that predation is a natural part of the ecosystem. The addition of the coyote to the ecosystem can change ecological balances of predator and prey species, but it will not eliminate other species from the environment. Predators serve a valuable function to keep prey species in balance with their habitat. Rodents such as rats and mice would be soon out of control without predators.

White-tailed Deer

Predator-prey relationships between the white-tailed deer and the coyote have been extensively studied. The coyote is a significant predator of deer fawns. Studies in Texas have shown that the coyote's diet consists of 70% fawns during June and July. Sheep predation by coyotes is known to drop drastically when fawns are born around the first of June. The synchronous birth of fawns in June allows the numbers of fawns to overwhelm the predators, and although a large number of fawns are taken during the first month of the fawns' lives, they become relatively secure after about one month. During winter predation again picks up and deer again become the main diet of coyotes. Although the coyote takes healthy adult deer during the winter, winter killed and wounded deer as well as carcasses and offal from hunting season probably make up the bulk of the winter diet.

In areas, such as West Virginia, where deer populations are abundant, coyote predation may benefit deer health by reducing the deer herd and providing more nutrients for the remaining deer. Coyote predation also has the potential to have significant negative effects on deer herds. In some northern states, deer herd densities are relatively low and their habitat consists of vast wild areas with severe winter weather. In Maine, food habitat studies showed that white-tailed deer made up 50-60% of the coyote's diet, and this predation had the potential to have significant negative effects on the deer herd. Coyote predation in the high mountain areas of West Virginia with lower deer populations and severe winters is likely to have more effect on the deer herd than in areas with higher deer populations.

In Texas, fawn survival in a coyote proof enclosure was significantly higher than outside the enclosure; however, as deer populations in the enclosure exceeded their carrying capacity fawn survival from 6-12 months was greatest outside the enclosure because the fawns were in better physical condition. This

John Cone

From: Chad.J.Fox@aphis.usda.gov
Sent: Monday, June 13, 2011 3:41 PM
To: John Cone
Subject: coyote livestock report
Attachments: Coyote2010.pdf

John,
Attached here is our annual report for 2010. The coyote harvest charts are made from VDGIF data. I did not include the specifics of the statistical details of how these numbers were derived so you might want to discuss that more with Mike Fies to further understand their meaning. However, I do believe that the picture projected is an accurate trend in that coyote populations have exponentially increased.

Chad J. Fox
District Supervisor
USDA-APHIS-Wildlife Services
105 B Ponderosa Dr.
Christiansburg, VA 24073
(540)-381-7387
(540)-381-7359 fax

The Status of the Virginia Cooperative Coyote Damage Control Program - Fiscal Year 2010

Chad J. Fox, United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, 105 B Ponderosa Drive, Christiansburg, Virginia 24073.
540-381-7387

EXECUTIVE SUMMARY

USDA-APHIS-Wildlife Services (WS) provided direct control services to 159 livestock farms in 24 western and southside counties in federal fiscal year (FY) 2010. During FY2010, 348 sheep, 35 calves, and 5 goats were reported and verified killed by coyotes in Virginia on these 159 farms. This level represents a 19% increase in reported sheep predation, a 6% increase in reported calf predation, and 50% decrease in reported goat predation from FY2009. WS has helped keep the statewide average number of sheep killed by coyotes per farm to less than approximately 5 per year for fourteen consecutive years. In FY2010, the average number of sheep killed per farm by coyotes was 4.2. Preventive control was conducted on 82 livestock farms with historic coyote predation. WS removed coyotes on these farms before livestock depredation occurred, and these farms had no losses in FY2010. Corrective control was conducted on 77 livestock farms to remove coyotes killing sheep, goats, cattle, and other livestock. In FY2010, WS removed 298 coyotes on farms to stop or prevent coyote predation on livestock. A cost-benefit analysis on sheep alone determined that $12.03 was saved for every dollar spent on the coyote damage control program.

The program was impacted by state-wide budget cuts, which eliminated all state funding for state FY2010. There was a 10% deerease in the number of farms receiving assistance for coyote predation on livestock from federal FY2009. There was a 62% decrease in the number of educational programs from federal FY2009. Overlap of state and federal fiscal years allowed the program to continue a status quo before making substantial cuts as a result of the loss in state FY2010 funding. The Virginia General Assembly reinstated $80,000 for state FY2011. Currently, state and federal funds now provides an equivalent of 3.5 staff years. Five employees stationed in Augusta, Franklin, Highland, Montgomery, and Russell counties work part-time to resolve coyote predation and also work on other wildlife damage management projects as needed. Continued increases in predation are expected as employees will be spending less time working on farms and as fewer farms are assisted.

FY2010 marked the 20th Year of the Virginia Cooperative Coyote Damage Control Program. Over one thousand small farms in Virginia, Virginia Tech, county governments, and the Virginia Department of Game and Inland Fisheries have used the VCCDCP for expertise in coyote management.

INTRODUCTION

The United States Department of Agriculture - Animal and Plant Health Inspection Service - Wildlife Services (WS) Program serves Virginia livestock producers suffering coyote predation on livestock by providing technical assistance, direct control, and education. This status report summarizes WS' accomplishments, funding, and goals in each of these areas.

Coyote depredations were recognized as a potentially serious threat to Virginia's livestock industries in the early 1980's (Figure 1). As a result, the Virginia Cooperative Coyote Damage Control Program (VCCDCP) was created in 1990 by a Cooperative Service Agreement between the Virginia Department of Agriculture and Consumer Services (VDACS) and WS. The VCCDCP is funded by sheep producers and county, state, and federal funding (Table 1). The program provides necessary technical and operational assistance in identifying, controlling, and abating coyote predation to livestock.

The VCCDCP uses and recommends an Integrated Predator Management (IPM) approach for solving livestock predation problems. This approach to predator management uses improved husbandry practices, predator resistant fencing, predator frightening devices, livestock guardian animals, and predator removal. The implementation of IPM on Virginia farms was accomplished through technical assistance, educational programs, and operational programs.

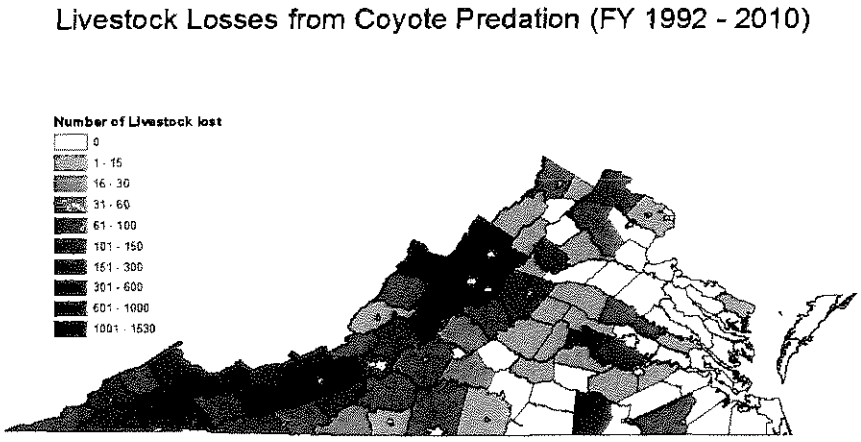


Figure 1. Total livestock losses by coyotes reported to Wildlife Services from 1992-2010.

Table 1. Sources of funding for the Virginia Cooperative Coyote Damage Control Program in a sampling of Federal Fiscal Years (FY) 2004, 2006, 2008, 2010, and 2011 (October 1 - September 30).

Source	FY2004	FY2006	FY2008	FY2010	FY2011
VDACS	$85,000	$120,000	$120,000	$0	$80,000
VSIB	$15,300	$4,000	$4,000	$5000	$5000
USDA-WS	$121,000	$158,000	$164,000	$164,000	$164,000
Total	$221,300	$282,000	$288,000	$169,000	$249,000

PROGRAM ACCOMPLISHMENTS

Technical Assistance

Technical assistance was provided to producers statewide through personal consultations on the farm, written/telephone consultations, and educational programs and exhibits. WS distributed hundreds of leaflets to producers, loaned videos on using guard animals, provided information to implement non-lethal and lethal methods, and evaluated predator-killed livestock.

Direct Control Services

During FY2010, the VCCDCP provided direct control services to 159 livestock producers reporting livestock losses to predation or livestock producers with historic losses. WS provided direct control services to 81 sheep farms, 74 cattle farms, and 3 goat farms in FY2010.

The VCCDCP implements preventive control to remove coyotes before losses occur because it minimizes overall livestock losses to predators. Preventive control is implemented primarily from January through April. Preventive control strategies remove territorial coyotes before pups are born, which decreases the predatory behavior of coyotes during the lambing season (Wagner and Conover 1999). Of the 158 livestock producers assisted, 82 farms (a 15% decrease from FY2009) with historic coyote predation losses had coyotes removed to prevent livestock predation. These 26 sheep farms, 54 cattle farms, and 2 goat farms with historic coyote predation losses received preventive control services. These farms had no livestock killed by predators in FY2010.

Corrective control is the implementation of coyote removal methods after the livestock producer reports losses. These losses can and do occur in all months of the year. Corrective control was implemented at 76 farms to stop chronic coyote predation on livestock in FY2010 (Table 2).

Table 2. Livestock depredations reported to, or verified by Wildlife Services on farms receiving assistance from the Virginia Cooperative Coyote Damage Control Program in FY2010 and FY2009.

Resources	Total livestock killed by coyotes, FY2010	Total livestock killed by coyotes, FY2009	No. of farms reporting losses, FY2010	No. of farms reporting losses, FY2009
Sheep	348	294	55	50
Cattle	35	33	21	27
Goats	5	10	1	1

Methods used by WS

Integrated Predation Management is the use of any or all practical and legal methods simultaneously or sequentially to prevent or reduce predation. Livestock producers are better able to implement non-lethal methods such as fencing, shed lambing, and other husbandry practices. Livestock producers can implement some lethal methods. However, they request assistance from WS when the predation losses are overwhelming or when preventive strategies are appropriate.

Wildlife Services implements a combination of lethal methods to alleviate predation on livestock at the livestock producers' request (Table 3). Coyotes may be removed by WS using snares, foot-hold traps, shooting, calling and shooting, decoying with dogs and shooting, M-44 sodium cyanide ejectors, or Livestock Protection Collars.

M-44's are the primary lethal method used because of efficiency and effectiveness at stopping or preventing predation. On average, 65-70% of coyotes killed by WS are taken each year with M-44's (Table 3). Also, M-44's are better able to continuously work during bad weather and freezing and thawing soil conditions, which can disable traps and snares.

Where appropriate, WS uses non-lethal methods to resolve livestock predation. Infrequently, strobe-sirens, a non-lethal method, are used until lambs are moved to market or lethal methods can be implemented. WS also assists in the placement of guard dogs to protect livestock.

Table 3. Lethal methods used by Wildlife Services and coyotes removed to protect livestock from predation in Virginia in FY2010.

Method used	Number of coyotes captured per method
M-44	217 (73%)
Snares	64 (21%)
Foot-hold traps	9 (3%)
Livestock Protection Collar	0 (0%)
Calling/shooting	8 (3%)

Sheep

Wildlife Services has consistently kept sheep losses to an average of approximately 5 or fewer sheep per farm for 14 consecutive years (Table 4). The average number of sheep killed by coyotes per sheep producer receiving WS assistance during FY2010 was 4.2 sheep per farm. This represents a 27% increase from FY2009 in the average number of sheep lost per farm to coyote predation and a 19% increase in overall sheep predation from FY2009. Although coyote predation to sheep is increasing (Figure 2), beneficial impacts to individual farms receiving assistance are realized (Table 4).

The average number of sheep killed by coyotes per farm has fluctuated from a low of 1.7 in 2003 to 4.3 in 2005 and down to 2.0 in 2007. Fluctuations of coyote predation from year to year have human and biological causes. Sheep and lamb inventories in Virginia have increased on average in recent years further increasing the likelihood of predation. Some producers lose many sheep to coyote predation before contacting WS to request assistance. Also, coyote predation can be difficult to stop due to irregular occurrence of predation and some coyotes are able to avoid capture. Furthermore, coyote populations continue to show increasing trends statewide (VDGIF Bowhunter Survey 2009, VDGIF Hunter Harvest Survey 2008-2009, VDGIF Pelt Harvest Survey 2009-2010).

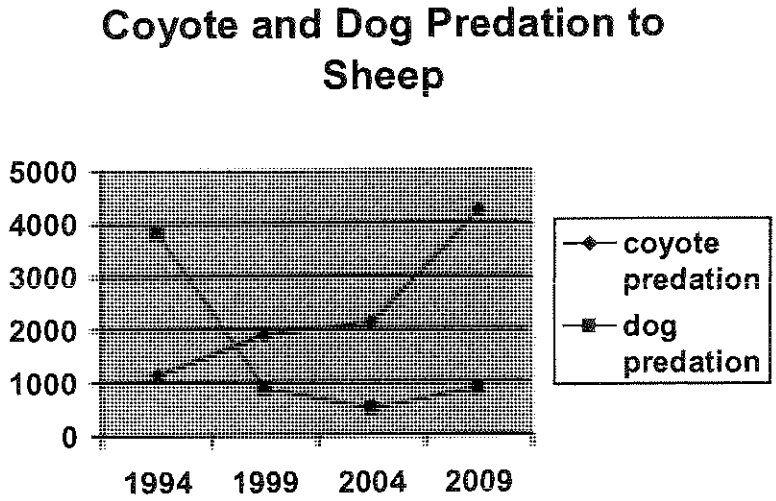


Figure 2. National Agricultural Statistics Service (NASS) estimates of sheep losses from coyotes and dogs in Virginia.

Table 4. Number of sheep, cattle, and goats killed by coyotes per livestock producer on farms receiving assistance from Wildlife Services 1993-2010.

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sheep killed	404	363	191	402	250	229	448	337	187	234	142	288	433	242	194	296	294	348
Sheep producers assisted	24	41	28	56	49	72	84	67	83	113	86	91	100	113	95	110	88	81
Sheep killed per farm	16.8	8.8	6.8	7.2	5.1	3.2	5.3	5.0	2.3	2.1	1.7	3.2	4.3	2.1	2.0	2.7	3.3	4.2
Goats killed per farm	-	-	-	-	-	-	-	9.0	6.0	6.3	7.3	2.4	3.1	6.1	2.2	3.4	2.5	1.7
Cattle killed per farm	-	-	-	-	-	-	1.4	1.7	0.3	0.6	0.4	0.6	1.2	.53	.37	.27	.39	.47
Number of coyotes removed	19	56	37	75	115	129	284	204	231	394	220	403	315	387	364	454	384	298

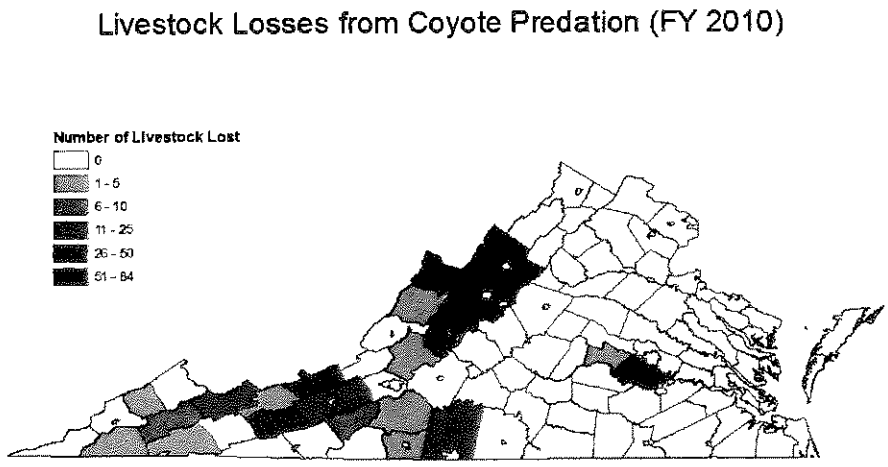


Figure 3. Livestock losses by coyotes reported to Wildlife Services in FY2010.

Goats

Goat losses in western Virginia due to predation by coyotes in FY2010 decreased 50% from FY2009 (Table 4). Goat losses were reported in Rockbridge, Powhatan, and Chesterfield Counties in FY2010.

Cattle

Twenty-one (28%) of the 75 cattle farms assisted in FY2010 received corrective control. Fifty-four (72%) of the cattle farms assisted received preventive control because cattle producers felt coyotes were a threat, coyotes were seen harassing or chasing cattle, or coyotes killed cattle, sheep, or goats on adjacent property.

Calf predation by coyotes is a growing concern among producers statewide. Fifty-two percent of all cattle losses reported to WS were from the Southwest Virginia region in FY2010, compared to 45% in FY2009, 36% in FY2008, 30% in FY2007, 26% in FY2006, 70% in FY2005, 58% in FY2004 and 100% in FY2003. This pattern is attributable to the VCCDCP providing services to Southside Virginia producers beginning in FY2006, who reported 42% of all cattle losses in

FY2007 and 61% in FY2008, 27% in FY2009, and 26% in FY2010. The National Agricultural Statistics Survey (NASS) of cattle predator/death loss indicates an increasing number of cattle/calves killed by coyotes in Virginia, ranging from 700 cattle/calves in 1991, 900 cattle/calves in 1995, 1,100 cattle/calves in 2000, to 2,300 cattle/calves in 2005 (Figure 4). A NASS survey of only WS clients reported 95 cattle killed by coyotes on 174 cattle farms in 1998 (NASS 1999).

The economic impact to the cattle industry from coyote predation is actually greater than the impact to the sheep industry. The value of cattle and calves lost to coyote predation in 2005 is estimated at $1.7 million whereas in 2004 the value of sheep lost to coyote predation was estimated at $310,000. (NASS 2005, NASS 2004)

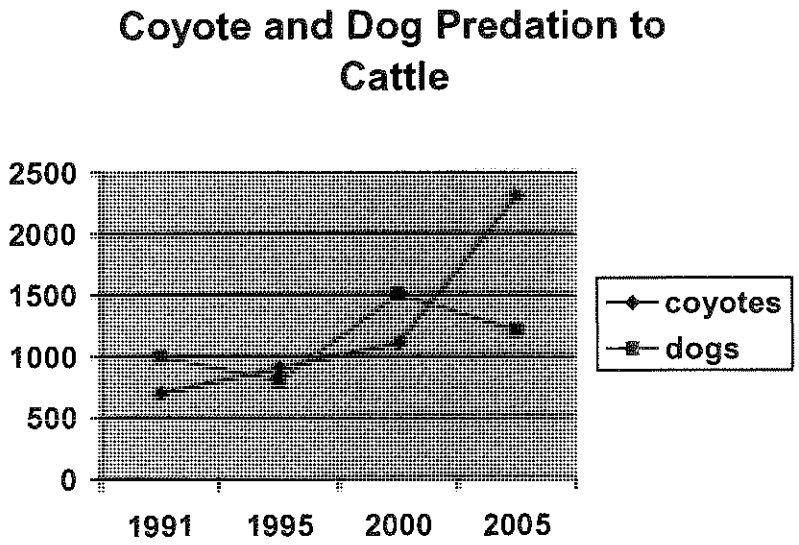


Figure 4. National Agricultural Statistics Service (NASS) estimates of cattle losses from coyotes and dogs in Virginia.

Coyote populations

Direct control services resulted in the removal of 298 coyotes by WS personnel during FY2009 compared to a high of 454 coyotes removed in FY2008 (Table 4).

WS assisted 1049 different livestock producers from 1990-2010 to protect livestock from coyote predation. Coyote populations in Virginia continue to grow each year (Figure 4), which results in more livestock predation on farms that historically never had coyote predation problems. In FY2010, an additional 56 new farms were assisted to protect livestock. Increases in coyote harvest have been documented by hunter and pelt harvest surveys from the Virginia Department of Game and Inland Fisheries (VDGIF) (Figures 6 and 7). The coyote harvest has increased from 1,295 in the 1993-94 hunting season to 24,449 in the 2008-2009 hunting season.

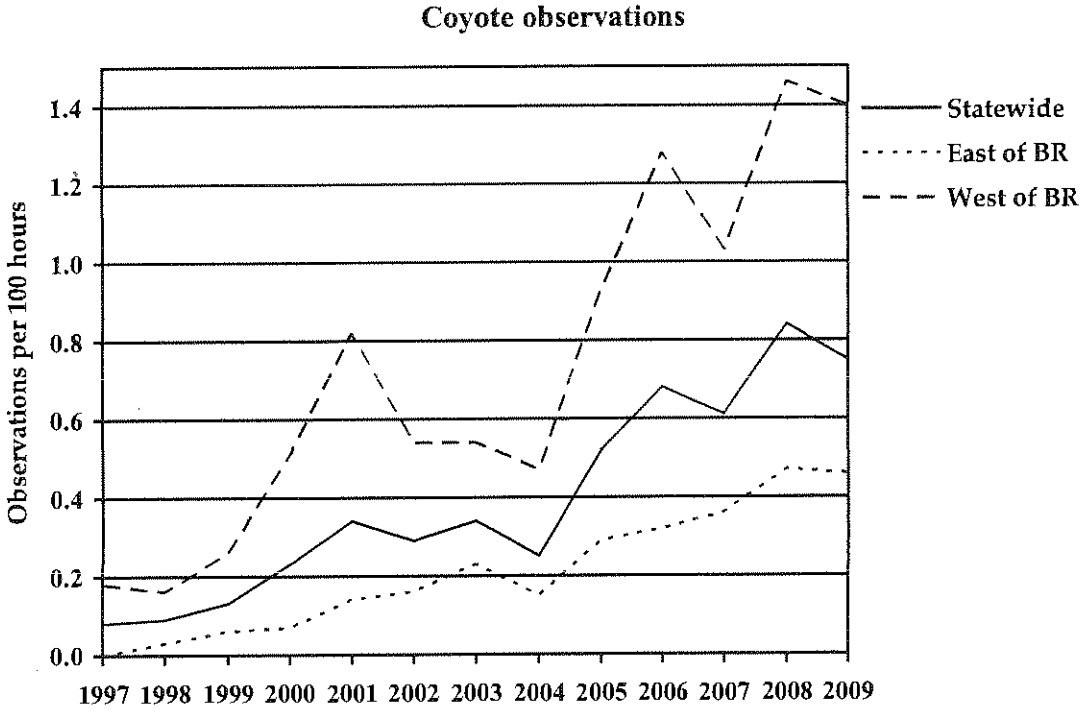


Figure 5. Coyotes observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2009 east and west of the Blue Ridge Mountains and statewide in Virginia (VDGIF Bowhunter Survey).

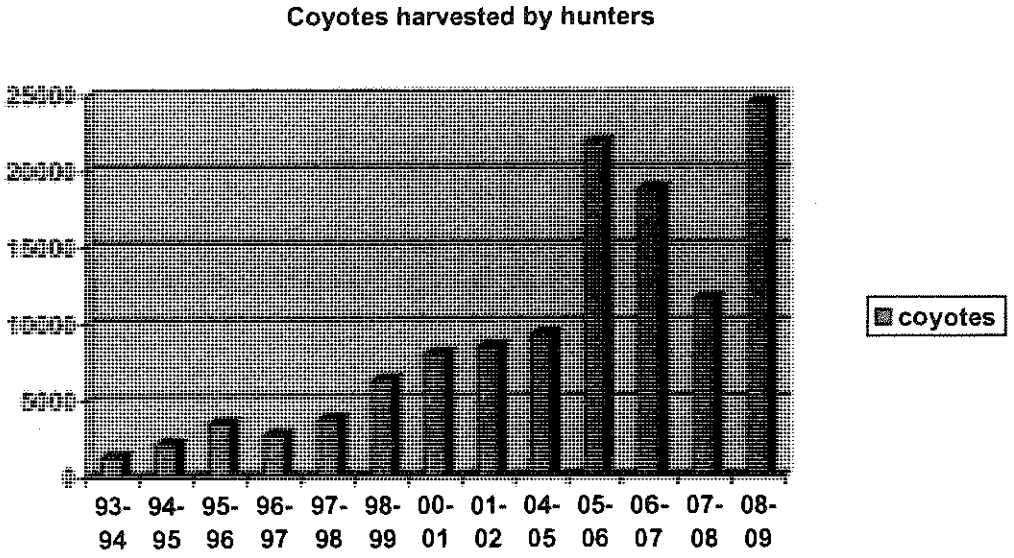


Figure 6. Number of coyotes harvested by hunters in Virginia during recent hunting seasons according to VDGIF hunter harvest surveys.

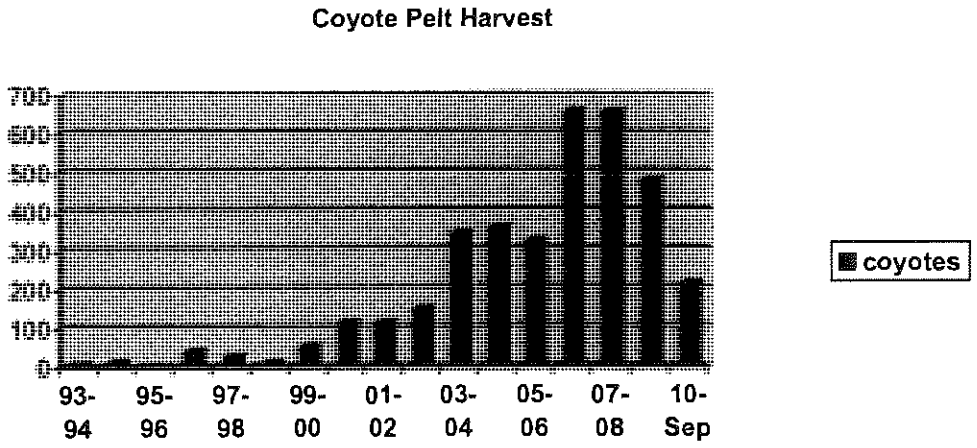


Figure 7. Number of coyote pelts harvested by hunters and trappers during recent hunting and trapping seasons according to VDGIF surveys.

Education

VCCDCP personnel worked with local media as a means of educating livestock producers and the public. VCCDCP information appeared in several newspaper articles in FY2010. WS also conducted 6 educational programs to educate livestock producers and the public about coyote ecology and coyote damage management. These educational programs were attended by 253 people, and several hundred informational leaflets about livestock protection were distributed at these programs (Table 5).

Table 5. Educational programs presented and meetings attended by Wildlife Services personnel under the Virginia Cooperative Coyote Damage Control Program in FY2010.

Requests/Cooperator/Organizations/Governments	# of Participants
Alleghany High School FFA	57
Bland County livestock producers	48
Northern Virginia Master Gardeners	45
Virginia Trappers Association	53
Virginia Tech wildlife students	50
Virginia Cattlemens and Dairymens Conference	unk.
Total for FY2010	253

FUNDING

During FY2010, the WS program employed 5 part-time coyote specialists. Approximately $70,000 is required to fund a full-time specialist. Federal funds and Virginia Sheep Industry Board funds provided a FY2010 total of approximately 2.5 staff years.

Cost-benefit analysis

Cost-effectiveness of WS predator damage management can be assessed by comparing: 1) the value of actual losses with the program in place, plus the cost of the program, and 2) the value of what losses could reasonably be expected without the program in place. This cost-benefit analysis is limited specifically to WS efforts to protect sheep in the analysis area during FY2010. A critical part of the determination of cost-benefit is the estimation of the losses that might reasonably be expected to occur without a damage management program, and sheep are the only class of livestock for which studies have been specifically conducted to address this issue.

This cost-benefit analysis is limited to quantifiable values and does not consider a number of

values that would he difficult to measure (i.e., reduced weight gain, still births). When sheep are repeatedly harassed by predators, for example, they do not disperse and feed normally. Thus, the sheep would not find the quality and quantity of feed if unstressed. This stress results in lower lamb weights at the end of the grazing season which affects market price at the time of sale. This is a form of predator damage, but it is difficult to quantify. Jahnke et al. (1988) and Wagner (1988) discussed additional examples of indirect predator damage, including increased labor costs and producer efforts to find sheep scattered by predators and pasture damage related to the tighter herding required in response to the presence of predators.

USDA (1997) cites four studies where sheep losses to predators were documented with no damage management program in place. Annual predation loss rates during these studies varied from 6.3-29.3% for lambs and 0 to 20.8% for adult sheep. However, for purposes of this analysis, we will conservatively assume that loss rates for sheep and lambs could be expected to be 7% and 17%, respectively, in the absence of a damage management program.

Table 6 shows that based on expected predation loss rates in the absence of a damage management program, the projected losses for sheep producers in Virginia during 2010 may have been valued at more than $2.2 million. VCCDCP expenditures for predator damage management to protect sheep in the analysis area in FY2010 were $169,000. This figure includes salaries and benefits for field, supervisory, and administrative staff, vehicle expenses, supplies and equipment, and overhead for all activities to protect sheep in the analysis area during FY2010. The difference between 1) the value of actual 2010 losses, plus the cost of the damage management program, and 2) the value of what losses could reasonably be expected to be without a damage management program is estimated at $2,033,860. This amount, divided hy the cost of the FY2010 program, yielded a positive cost-benefit ratio of 1 to 12.03, or for every dollar spent on VCCDCP there was potentially up to $12.03 saved. This cost-benefit ratio is conservative, given that cattle and goats were not included in the analysis.

Table 6. Actual and hypothetical sheep and lamb losses to predators in the Virginia analysis area for FY 2010. The Virginia Cooperative Coyote Damage Control Program budget in 2010 was $169,000.

Number of head of livestock in VA	Actual losses w/ VCCDCP (% predation)	Projected losses w/out VCCDCP (% predation)	Difference	Average $ value per head	Total Saved
Sheep (55,000 head)	37 (<1%)	3,850 (7%)	3,813	$155	$591,015
Lambs (63,000 head)	311 (<1%)	10,710 (17%)	10,399	$155	$1,611,845
Total	294	14,560	14,212		$2,202,860

GOALS FOR FY2011

WS will provide information to the livestock industry on the status of the program and seek feedback on industry needs in Virginia. Education and outreach activities will be increased in FY2011. WS biologists will increase outreach to cattle and goat producers to better determine the needs for these components of the industry that are sustaining the greatest and growing impacts of predation. Specialists will initiate preventive control work prioritized on farms with a recent history of predation. Farms requesting corrective control will receive top priority and attention.

WS managers will seek alternative sources of funding to diversify and increase the stability of the livestock protection program. WS will also set a goal to maintain and increase other funding for other wildlife management projects to maintain the current staffing level of 5 employees working part time on the program.

Literature Cited

Jahnke, L. J., C. Phillips, S. H. Anderson, and L. L. Mcdonald. 1988. A Methodology for identifiying sources of indirect costs of predation control: A study of Wyoming sheep producers. ASTM Spec. Tech. Publ. 974:159-169.

National Agricultural Statistics Services. 2010. Sheep and Goats Death Loss. Washington, D.C.

National Agricultural Statistics Service. 2005. Cattle Death Loss. Washington, D.C.

National Agricultural Statistics Services. 2005. Sheep and Goats Death Loss. Washington, D.C.

National Agricultural Statistics Service. 2001. Cattle Predator Loss. Washington, D.C.

National Agricultural Statistics Service. 2000. Sheep and Goats Predator Loss. Washington, D.C.

National Agricultural Statistics Service. 1999. Livestock wildlife damage survey results. Washington, D.C.

National Agricultural Statistics Service. 1996. Cattle predator loss. Washington, D.C.

National Agricultural Statistics Service. 1995. Sheep and Goat Predator Loss. Washington, D.C.

National Agricultural Statistics Service. 1992. Cattle and calves death loss. Washington, D.C.

USDA. 1997. Revised Animal Damage Control Final Enviromental Impact Statement. U.S. Dept. Agric., Anim. Plant Health Inspection Serv., Anim. Damage Control, Operational Support Staff, Riverdale, MD. U.S. Dept. Agric., Anim. Plant Health Inspection Serv., Animal Damage Control, Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD 320737.

Virginia Department of Game and Inland Fisheries. 1993-2008 Virginia Bowhunter Survey, and Hunter Harvest and Pelt Harvest data.

Wagner, F. H. 1988. Predator control and the sheep industry. Regina Books, Claremont, CA. 91711.

Wagner, K.K., and M.R. Conover. 1999. Effect of preventive coyote hunting on sheep losses to coyote predation. J. Wild. Manage. 63(2):606-612.

Coyotes in the East:

John C. Kilgo, Research Wildlife Biologist
USDA Forest Service Southern Research Station

Many hunters and landowners in the eastern United States have expressed concern in recent years about the number of coyotes they are seeing and whether coyotes might be affecting deer and other wildlife. Coyotes have long been known to be effective predators of fawns and other small animals in the West, but eastern biologists have generally not considered coyotes a management problem. However, recent research indicates that predation by coyotes may be more of a concern than previously thought. Much of this work has been conducted at the U.S. Department of Energy's Savannah River Site (SRS), a 300 square mile, forested area in western South Carolina where concerns over the possible effects of coyotes on deer prompted the research. The first step was to study the coyotes themselves—their population size, their movements and habitat use, survival and mortality, and food habits. This work later led to more direct assessments of their impact on the deer population.

Some Coyote History

It is important to understand that coyotes did not historically occur in eastern North America. They were native to the western plains from southern Canada to Mexico. Now, however, they have expanded their range in all directions to include most of the continent. Habitat change, primarily the clearing of land, which resulted in more open, early successional habitat, and the removal of gray wolves allowed for movement of coyotes into the Northeast from the Midwest.

Colonization of the Southeast was expedited by the direct translocation of coyotes by fox hunters, who released coyotes into large enclosures called "fox pens" in which the coyotes were hunted with hounds. Coyotes occasionally escaped the fox pens and established isolated populations, which grew and merged over time.

The eastern U.S., from Maine to Florida, is now fully occupied by coyotes, though many eastern states have only seen well-established populations within the past couple of decades. Thus, coyotes are still very new to many areas and much remains to be learned about how they function ecologically in the region. The species is clearly highly adaptable to a wide range of conditions.

Coyote Ecology

Habitat

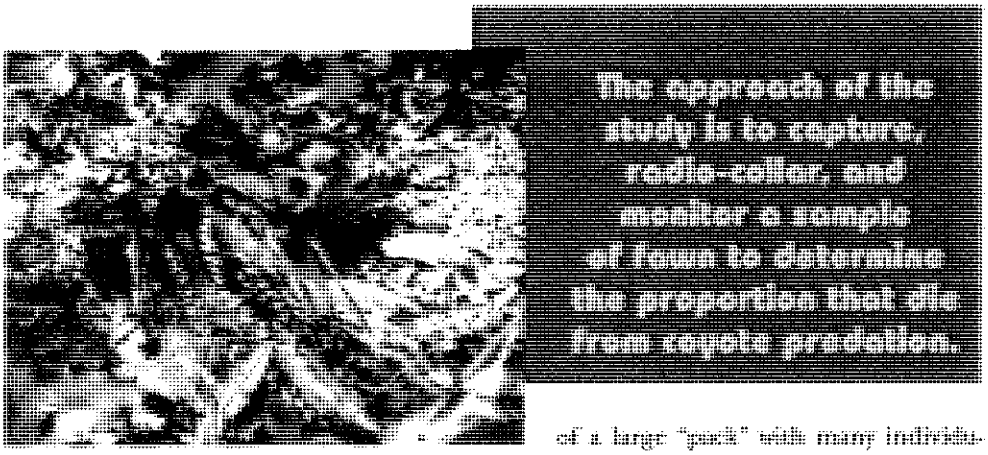
In contrast to the open nature of the historic western range of coyotes, much of the eastern U.S. is forested. This drastic difference in habitat may affect coyotes in many ways and makes it difficult to apply what we know of western coyotes to the newly established populations in the East. For example, with different foods available to them, eastern coyotes necessarily differ in what they eat. Other characteristics such as habitat use, daily and seasonal movements, social organization and behavior, and size may also distinguish them from their western counterparts.

Appearance

In Georgia and South Carolina, coyotes average 28.5 pounds in size and in Maine, 33 pounds. Coat color ranges from light tan to black. Some eastern populations have a higher incidence of black coloration, but there is no evidence that this results from hybridization with dogs. At SRS, approximately one-third of coyotes are black, a relatively high proportion.

Mating and Relationships

Coyotes mate only once a year, during winter. Pups are born 63 days later,



usually in April. Litter sizes range from three to seven pups. Coyote dens may be in brush piles, rock crevices, enlarged burrows of other animals, or any suitable hole. They may use more than one den, particularly if the active den is disturbed. Pups emerge from the den within two to three weeks of birth and are usually weaned at about two months of age, but they remain with the parents until the fall.

In the South, coyotes rarely form persistent packs. Mated pairs occasionally travel together, and during summer and fall, pups of the year may also be present. However, it is unusual to see more than two coyotes together; most often, coyotes are solitary.

Howling is a means of communication that occurs throughout the year, but it peaks during the winter months, when pair bonds are being established. A howling sequence often consists of a very rapid series of yips and howls, and when two coyotes perform this yip-howl together, the impression can be of a large "pack" with many individuals.

Life Span

Coyotes rarely live more than a few years. Where trapping and hunting pressure is heavy, few live more than two or three years. Humans account for most coyote deaths through hunting, trapping, or vehicle collisions. Other causes of death include disease and accidents. At SRS, the annual survival rate of 33 radio-collared coyotes monitored over a 2-year period was 66 percent. In other words, one-third of the adult population died every year. At least 60 percent of the mortality was from anthropogenic sources, despite the fact that no shooting or trapping occurred on the study area. Because coyotes move over large areas (home range size at SRS averaged over 12 square miles, with some transient individuals covering much more ground), the radio-collared animals occasionally left the SRS and were then vulnerable to trapping and shooting.

Diet

The coyote diet is highly diverse and varies markedly through the year. One of the reasons coyotes have been so successful is that they eat just about anything, from garbage to insects to fruit to other animals. However, at any particular time, coyotes typically focus on just a few abundant food sources.

At SRS, food preferences were assessed on a monthly basis through examination of scat contents. During months in which natural fruits are available (May through November) fruit is always the number one food item, with the particular species depending on what is fruiting at the time and the size of the annual crop: in May, wild plum; in mid-summer, black berry and black cherry; and in late summer and fall, pokeweed, persimmon, and muscadine.

Plant material, which remains a significant if less important part of the diet throughout the year, is replaced during the winter and spring by mammals. Wild hog carcasses, rabbits, squirrels, and other small mammals are eaten throughout the year but are most important during the winter, while deer fawns are important during the spring and early summer. Large insects, particularly beetles and grasshoppers, are frequently eaten during summer. Interestingly, birds, though occasionally taken, are never an important part of the diet. Other mammalian food items recorded include beaver, armadillo, raccoon, opossum, and gray fox.

Impacts on Deer

So what about deer? The SRS fawn research began in 2005 and is ongoing. The approach of the study is to capture, radio-collar, and monitor a sample of fawns to determine the proportion that die and, in particular, the proportion that die from coyote predation. This number can then be plugged into statistical population models to assess whether the amount of mortality caused by coyotes is sufficient to explain the decline in the deer population.

Each radio-collar is equipped with a

tain, but the SRS data demonstrates that coyotes are capable of inflicting severe losses on deer populations.

Management Options

Knowing that coyotes eat a lot of fawns, hunters inevitably will ask what can be done about it. There are no easy answers, but the first step is to consider the situation and the management goals of a particular property. Many parts of the Southeast, particularly urban areas with limited hunting, still have problems with over-abundant deer. In such areas, some predation losses may actually he helpful to deer managers. Researchers at Auburn University found that coyote predation was the leading cause of fawn mortality in suburhan areas around Auburn, Alabama. High-density deer populations in rural areas may also benefit from the additional controlling influence of coyotes, especially if hunters are not able to achieve adequate control through doe harvest.

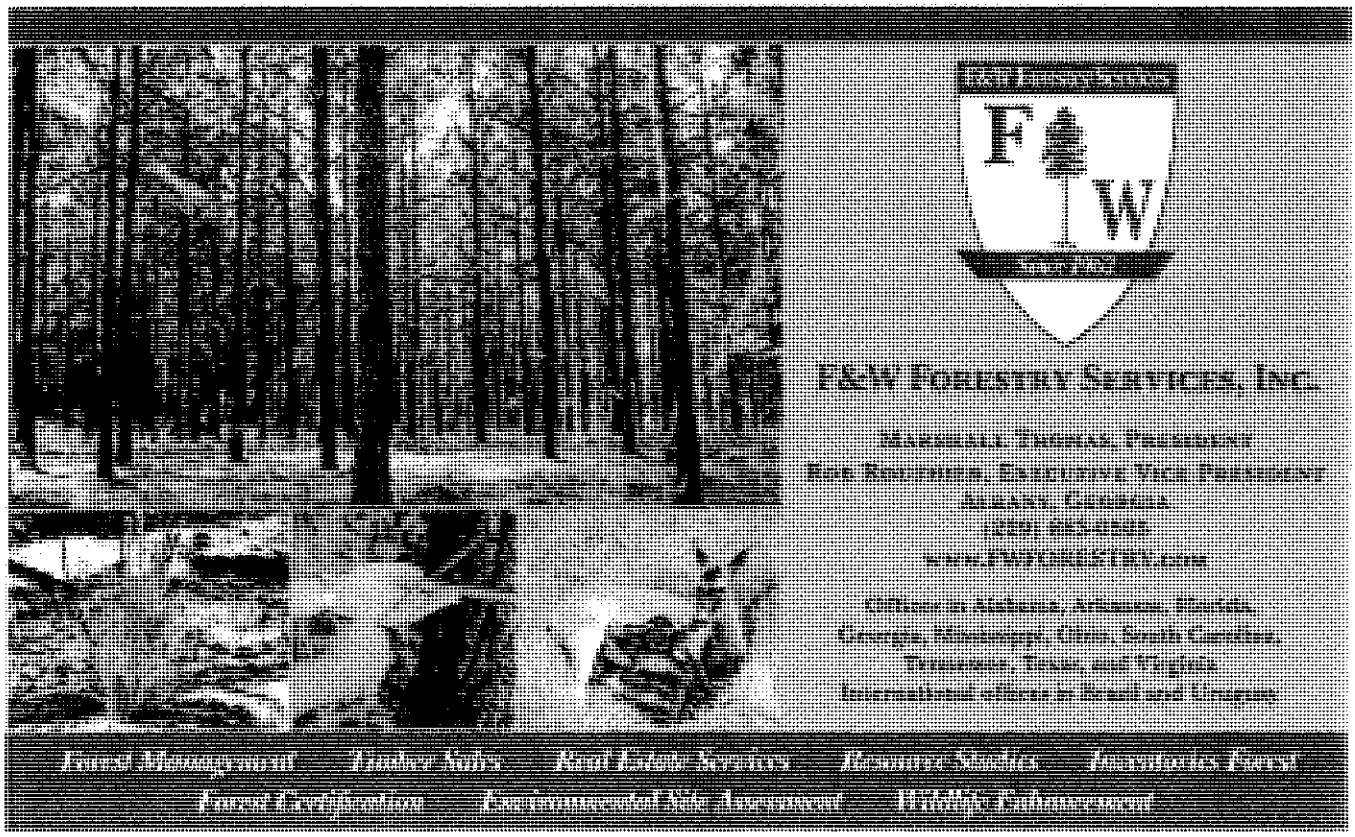
On the other hand, if a deer population appears to be declining or is at a low density, coyote predation may well be responsible. In this case, two possibilities exist: attempt to limit predation by reducing the number of coyotes or attempt to increase production by increasing the number of does. Although there is some disagreement among biologists as to whether coyote control can be effective, a recent University of Georgia study conducted in northeastern Alabama documented higher fawn to doe ratios (indicating increased fawn survival) following an intensive predator removal program.

However, coyote control can be very expensive and time consuming, and it generally requires the efforts of an experienced trapper; occasional shooting will have little to no effect. It must be done over a fairly large area because of the wide-ranging nature of coyotes, and it must he done as close in time to fawning season as possible (late winter is better than fall) because transient coyotes will quickly move in where resident coyotes have heen removed. For the same reason, it must be conducted year after year. In short, this is not a feasible option for most landowners.

Increasing the number of does in the population by limiting harvest is a more easily achieved option, but less attractive for hunters who like to harvest does. Unfortunately, limiting doe harvest may be the only option available in most cases. Based on the SRS data, some deer populations simply cannot sustain both coyote predation and heavy doe harvest, at least at the levels to which hunters became accustomed during the 1980s and 90s. Something will have to give, and hunters tend to be easier to control than coyotes. Whether doe harvest will need to be substantially curtailed or just slightly restricted will depend on many factors specific to the local situation, but some adjustment may be necessary in many areas.

Conclusion

Regardless of whether they have positive or negative effects in any particular situation, the now-widespread abundance of coyotes means that deer managers and hunters will need to consider this new source of mortality in deer populations. For better or for worse, this fascinating and adaptable animal is here to stay. ◆



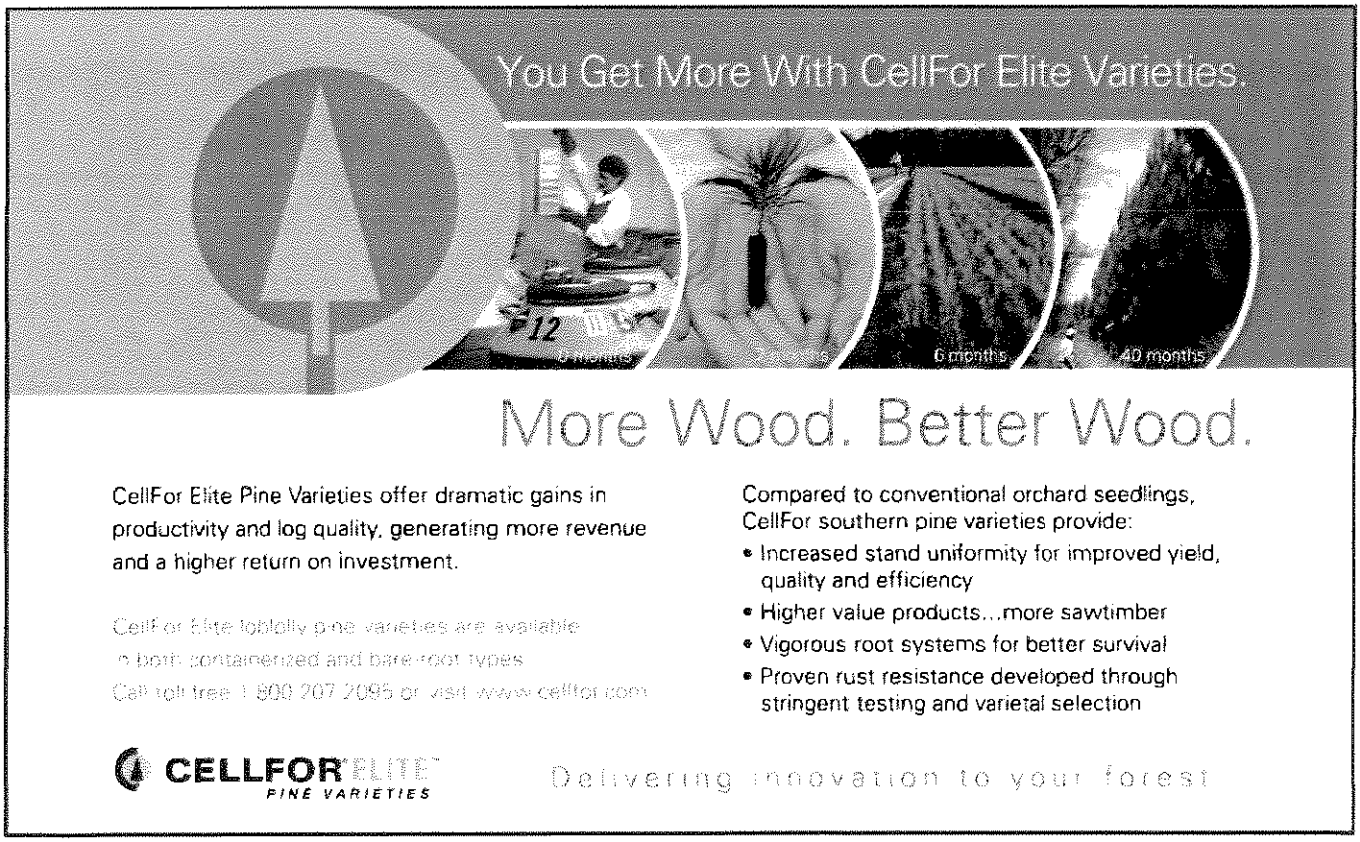
motion-sensitive switch that changes the signal emitted by the collar when it has not moved in four hours, thereby indicating that the fawn is dead (fawns rarely remain motionless for four hours). By checking the signal from each fawn frequently, researchers are then able to determine when a fawn died, and therefore how old it was at death.

When a "mortality signal" is detected, the transmitter and carcass are recovered and an attempt is made to determine the cause of death. Whether the predator was a coyote or bobcat (essentially the only two possibilities at SRS) can be determined from evidence at the scene. Coyotes and bobcats cache their prey in different manners and leave different sign. For example, coyotes often bury a carcass in the ground, whereas bobcats only scrape litter over it. Bobcats may leave scratch marks on nearby trees or logs. Coyotes occasionally defecate near the carcass to "mark" it. Tracks may be visible if there is exposed moist soil. A field necropsy is performed on the fawn to examine the pattern and location of bite wounds and the distance between canine punctures, which can also aid in predator identification. Finally, residual predator saliva is collected from bite wounds using a cotton-tip swab. Genetic analysis of saliva can reveal not only the species of the predator, but can also identify individual animals. This information indicates whether just a few experienced predators or all of them kill fawns.

To date, the SRS research has found that coyotes are, in fact, taking a tremendous toll on fawns. Of 60 fawns monitored over the course of the work, only 16 have survived until autumn, when they are old enough to be safe from predation and can be considered part of the huntable population. That means that 44 fawns, or 73 percent, did not survive. Predation by bobcats and coyotes has accounted for all but one of the deaths. The great majority of the predation, though, has been by coyotes: 36 of the 44 (82 percent) have been either confirmed or probable coyote predation, 6 have been bobcat predation, and 2 have been attributed to unknown predators.

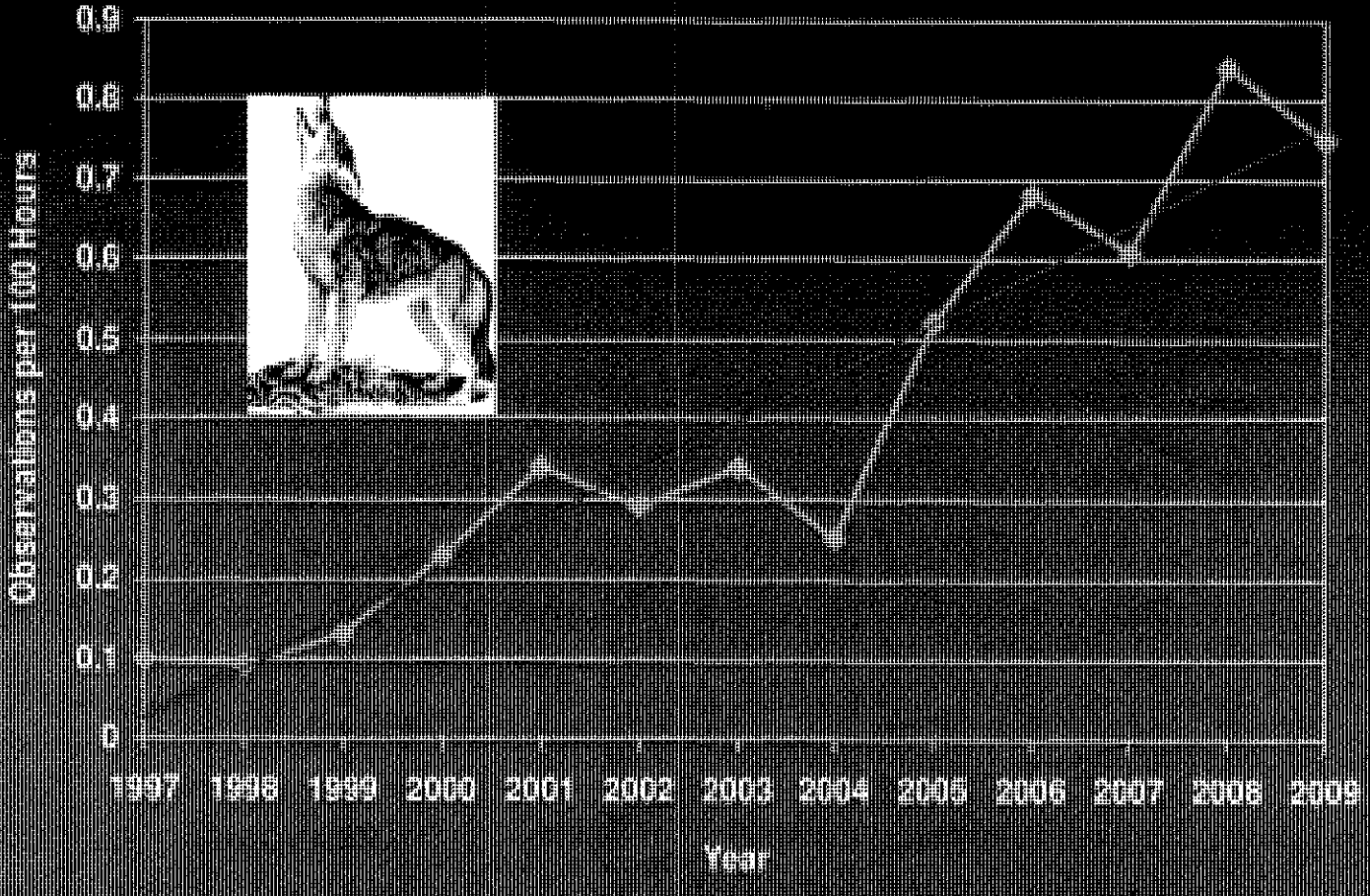
The risk of predation is greatest in the first month of a fawn's life. By about 6 weeks of age, they seem generally able to evade predators, and no fawns have been killed by predators after 10 weeks. Genetic analysis has revealed that many different coyotes kill fawns, with only two individual coyotes being responsible for more than one kill.

Population models show that this level of mortality is more than sufficient to explain the decline that has been seen in the SRS deer population, but does it mean that coyotes represent a threat for deer across the Southeast? The density of the SRS deer population is very low, so the effects of predation may be especially magnified. However, the statewide deer population in South Carolina has declined approximately 30 percent since the mid 1990s. How much of that broader decline can be attributed to coyotes versus other factors such as large-scale changes in habitat conditions is uncer-



VIRGINIA BOWHUNTER SURVEY

COYOTE OBSERVATIONS PER 100 HOURS



Growing Deer Population Hurts Survival Of Forests

by SABRI BEN-ACHOUR

June 15, 2011 text size A A A

The white-tailed deer was a rare creature across the East Coast 100 years ago. Now it is widely overpopulated, but what does that mean for forests? A decades-long experiment has found unsettling implications for bio-diversity and the long-term survival of forests.

Copyright © 2011 National Public Radio®. For personal, noncommercial use only. See Terms of Use. For other uses, prior permission required.

RENEE MONTAGNE, host:

The white-tailed deer was a rare creature along the East Coast a hundred years ago. Now they seem to be everywhere. Across the country there are some 20 million white-tailed deer and many states are seeing record populations, populations that are expected to grow. That has had big implications for road safety and gardens. Now new warnings about the implications for bio-diversity and the long-term survival of forests.

Sabri Ben-Achour has the story.

SABRI BEN-ACHOUR: Back in 1990, scientists with the Smithsonians Conservation Biology Institute in Front Royal, Virginia closed off about 10 acres behind an eight-foot tall wire fence. Its called an exclosure. Its a world without deer and it doesnt really exist anymore anywhere else.

Bill McShea is a wildlife ecologist with the Smithsonian. And after passing through a rickety wire door...

(Soundbite of a metal door)

BEN-ACHOUR: ...he is standing in that world.

Mr. BILL MCSHEA (Wildlife Ecologist, Conservation Biology Institute, Smithsonian Institution): So here were inside this deer exclosure, right at the fence line here. And this fence has been up now for 21 years. So we're comparing inside the fence to outside the fence. And there's two things to notice. One is, its green on both sides of the fence. But in here, its a lot more diverse than out there.

BEN-ACHOUR: That is an understatement. The deer side of the fence has a carpet of grass, a shrubby looking thing, and some large trees - things that are either too big for deer to eat, or are among the very few plants they dont like to eat. Inside it is practically a jungle. Dozens of different almost exotic looking plants are tumbling over one another. Many of them are young trees.

Mr. MCSHEA: In here, I can see white ash and hickory and red maples and service berry. Were looking at 20, 30 species. If you look out there, its a much simpler world.

BEN-ACHOUR: And that simpler world is an aging world. Really, its a dying world, as far as forests go.

Mr. MCSHEA: The future is not good. Theres no teenagers here. There's no young adults. Everybody is a mature individual. Whereas inside this fence, you have the complete profile of ages. You have youngsters. You have teenagers you have middle-aged adults. You have the old trees. And when the old trees go, there is something here to take its place. Out there, I dont see anything out there thats a small tree.

BEN-ACHOUR: One of the surprising things theyve found with this experiment is that deer allow invasive species to flourish. And with fewer native plants, there are fewer birds who depend on them for nests and food. There are fewer mice and fewer chipmunks here when they have to compete with deer. It wasnt always this way.

A hundred years ago deer were nearly extinct in Maryland and extremely rare in Virginia. Newly minted state game departments rushed to the rescue, banning or regulating hunting and setting up parks.

Mr. MCSHEA: They went and got deer from Arkansas and brought them here to repopulate that area. So growing the deer population was intentional. Its a conservation story and it went just like they planned. And now the flipside has happened.

BEN-ACHOUR: Deer arent evil, McShea is quick to emphasize, but they dont have any natural predators anymore and they need to be managed. States rely on hunters and even hired sharpshooters. But McShea says in order to protect the long-term health of forests, a wider, more aggressive approach is necessary.

Mr. MCSHEA: We have time in that we dont have to make a decision this year.

BEN-ACHOUR: But he says, we dont have decades - trees dont live forever.

For NPR News, Im Sabri Ben-Achour in Washington.

Copyright © 2011 National Public Radio®. All rights reserved. No quotes from the materials contained herein may be used in any media without attribution to National Public Radio. This transcript is provided for personal, noncommercial use only, pursuant to our Terms of Use. Any other use requires NPR's prior permission. Visit our permissions page for further information.

NPR transcripts are created on a rush deadline by a contractor for NPR, and accuracy and availability may vary. This text may not be in its final form and may be updated or revised in the future. Please be aware that the authoritative record of NPR's programming is the audio.

Recd 6/28/11

Letter# 255

COMMENTS ON THE GWNF DRAFT PLAN
BY
William B. Leichter

Whoever reviewed the draft plan did a poor job of editing of information and data in the documents. Many errors are scattered through out the documents. I will only point out a few such mistakes. One example is the mailing addresses for the Ranger Districts are mixed up. This should not have happened. This and data provided gives the impression that the plan was poorly prepared by those who did not understand the process or know anything about the GWNF and sets the stage for appeals. It makes one wonder how good the plan will be to provide direction on the management of these public resources. The final must take a close look at each page and the maps in order to provide reliable direction and information.

Both Alleghany County and Bath County Boards of Supervisors passed Resolutions opposing additional Wilderness Areas. They represent the citizens of the area and those desires should be followed. Therefore no additional wilderness areas should be proposed in those counties. But the Forest decided to ignore the citizens in the area which will have to live with such areas if approved.

Another example is the data given on existing designated wilderness areas.

(1) Rough Mountain Wilderness – about 150 acres of this area is in Alleghany County and within the James River Ranger District but the draft shows it all on the Warm Springs District and in Bath County.
(2) Barbours Creek Wilderness – The Draft shows this entire area to be on the Jefferson National Forest. However, it crosses into Alleghany County on top of Potts Mountain and that portion of about 20 to 30 acres is on the James River District of the GWNF.
(3) Shawvers Run Wilderness – The Draft shows this entire area being in Craig County and entirely within the Jefferson National Forest. However an area of around 50 acres crosses into Alleghany County and is within the James River Ranger District.

These errors on existing wilderness cast doubts on other data provided. It gives credit to the Jefferson National Forest for management direction on the GWNF. To my knowledge no changes have been made between the two Forests nor should there be any such changes made to administrative boundaries. Someone with knowledge of the Forest needs to check all the data and make changes to show accurate information. Even though the acres involved are small they need to be shown where they are located. Also this adds to the amount of designated wilderness areas on the GWNF. It is evident that no one checked the records to insure accurate information is provided.

RICHHOLE WILDERNESS AREA
COMMENTS

Interstate 64 parallels the Richhole Wilderness area and is within 300 feet for most of that distance. Traffic on I-64 is heavy and increasing each year. A large percentage of the traffic is truck traffic. The noise from this traffic and the odor of truck and car exhaust fumes takes away from the wilderness experience for the area. This designated area receives little use except for a few hunters in the fall. This area should never have been designated as a wilderness area. If possible an attempt should be made to have Congress remove this area from the wilderness classification because it doesn't provide a wilderness experience.

Now in the Draft Plan you are proposing an addition to Richhole in Bath County. It is evident the planners are trying to tie Rough Mountain Wilderness Area to the Richhole Wilderness area. This addition will not add to the wilderness experience for either area and cannot be joined into one area. The CSX Main Railroad track for their Mountain Division is between these two areas. Coal trains and Freight trains use this track. Also Amtrak uses this route on its east and west routes about three times a week each way. There is coal dust, noise and exhaust fumes from the diesel engines. In addition adjacent to the railroad track there is a low standard jeep road on the CSX property and adjacent to the area proposed for an addition to Richhole. It is used by local ATV users as well as by CSX maintenance vehicles. The railroad crosses the Cow Pasture River very close to the proposed addition and by law each train going east or west must blow their horn before reaching the bridge as a warning to any one who might be walking across the bridge. When one considers the dust problem, noise of train engines, warning horn, ATV problem, safety, etc. it is very obvious that the proposed addition to Richhole does not add to the wilderness experience. It just takes more land out of balanced and needed management and creates problems. It is no more than an attempt to set more land aside as wilderness even though it don't add to the wilderness experience. This proposal must be dropped in the final plan as it does not qualify for wilderness designation.

PRESCRIBE FIRE

The Draft Plan increases the amount of area to receive prescribes fires. Prescribe fire should only be used in those areas that contain vegetation that require fire. It should not be used in the spring of the year when tree sap is on the rise as fire during such times will damage the oaks and hickories. It should not be used during the period when ground nesting birds or young animals are using the under story for cover. The Plan needs to set a period when such fire will not be used (spring and summer months). Fire as a management tool has not been proven to be beneficial to the resources in an Appalachian Area. The research on this needs to be spelled out in the EIS. Prescribe fire cannot be used to provide early succession habitat that is needed by certain species of birds and animals. It will not provide such habitat.

The plan should show on maps the areas where such would be permitted and the plan must give reasons of why such areas were selected. The manager should not burn the same areas year after year like they have been doing. In addition prescribe fire should not be used in Developed Recreation Areas as have been done in the past few years.

TIMBER SALES

The draft plan does not permit enough timber sales. The forest is an aging forest and at present more timber dies of disease and other factors than is harvested by timber sales. This is a waste and the lack of timber harvest also has adverse impacts on other resources. The deer population has declined as have the grouse population and certain song birds. These require early succession habitat and the lack of timber harvest prevents such habitat from being developed in the amount that is needed. Too many acres are placed in a preservation type of management and no thought is being given to the needs of these species. This also affects the local economy due to the lack of hunters and timber sales. Each of the districts should harvest approximately eight to twelve million board feet of saw timber and pulpwood each year to bring the habitat back in balance. This would provide many local jobs also and help the local economy. One reason given for the lack of an adequate timber management program is that the budget won't support such a program. This is a ridiculous reason for lack of planning a better timber program. They can't predict the budget for next year let alone ten years from now. The team should plan for what is needed and then the Forest Supervisor and Staff should work to obtain an adequate budget to support the program. Supplying timber products to the public was one of the main reasons for the establishment of national forests along with water. More emphasis needs to be placed in this Plan on the management of the timber resource. Private timber cannot provide what is needed to supply the various timber industries within the GWNF zone of influence.

Sincerely,

William B. Leichter
527 Brentwood Drive
Covington, VA 24426

Letter# 256

County of Bath
County Administrator's Office
P.O. Box 309
Warm Springs, VA 24484
(540) 839-7221
(540) 839-7222 FAX
bathadmn@tds.net

July 12, 2011

George Washington Plan Revision
George Washington and Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

RE: BATH COUNTY BOARD OF SUPERVISORS COMMENTS HEREWITH FILED ON THE PROPOSED GEORGE WASHINGTON FOREST PLAN (GWFP)

Dear Ladies and Gentlemen:

On July 12, 2011, the Bath County Board of Supervisors authorized the filing of these comments on the proposed George Washington Forest Plan (GWFP). Several land management policies proposed pose concerns for Bath County.

The County has participated in this forest planning process as it started, continued, was stopped by court order, and continued again. The Board has had presentations by the Forest Service and previously made written comments concerning the proposed plan. On January 26, 2009, the Board passed a resolution filed with the Congressional delegation and the Forest Service asking that no additional wilderness areas be included in Bath County; these comments are attached again for reconsideration, and again shall be filed with the Congressional delegation and State representatives.

The Bath County staff has undertaken an initial review of the proposed Plan, to gain knowledge of its features. The County staff has searched the Forest website, read news reports, corresponded by email with the Forest staff, requested a presentation to the Board of Supervisors on June 14, 2011, and conducted field reviews of the mountains named as possible sites for windfarms by the Forest Service in order to assess viewshed impacts which may affect our tourism economic base. It appears that the proposed plan includes recommendations which affect the management of the Forest in Bath County:

- **An addition to the Wilderness Areas** (Rich Hole Mountain Addition near the Alleghany and Rockbridge County lines, southeast corner of Bath County)—the Forest Service says that it evaluated comments including

those of County Boards, and attempted to add wilderness areas which did not border settled areas. The Bath County proposed addition is between 2 other Wilderness Areas, including Rough Mountain, which has a border along Route 42, a settled area.

- **Consideration of wind energy development on several ridge tops**—the Forest Service and James Madison University's wind program staff worked on these recommendations. The Forest Service has excluded some natural areas from consideration of wind energy development but, with the implementation of the preferred alternative plan proposal, the National Forest would consider wind farm development on certain ridge tops and review proposals following NEPA considerations. The Bath County mountains include: Alleghany Mountain (along the West Virginia line), Walker Mountain, Little Mountain (the ridges west of the Cascades), and part of Back Creek Mountain. Considered unsuitable by the Forest Service are Warm Springs Mountain, Beards Mountain (borders Douthat), Rough Mountain (existing Wilderness), Mill Mountain, and Shenandoah Mountain. The Forest Service has told the County staff that if the County or people in the County would like to see more areas identified as unsuitable for wind energy development to provide them that information.
- **Maintenance of timber harvests**—more land is opened to this practice but the yearly amount is not increased.
- **Continuance of fire (prescribed burns) as a management tool**
- **Exclusion of lateral underground drilling for minerals/oil/gas**

The Plan has several alternatives and includes a recommended alternative (G). G includes the items listed above. The Environmental Impact Statement (EIS) for the proposed Plan recognizes alternative viewpoints on issues such as access, soil and water quality, biological diversity, old growth, forest health, wind energy, oil and gas leasing, fire, recreation, wilderness/roadless areas, timber harvest, economics and local community, and climate change.

The Preferred Alternative is stated to attempt to provide for biological diversity and habitats through designated management areas. It reduces road network mileage. The Summary says "High scenic quality would be a major emphasis" and that resource management would be designed to attract recreation users locally and from large population centers.

BATH COUNTY BOARD OF SUPERVISORS' CONCERNS REGARDING THE PROPOSED PLAN, WITH PARTICULAR REFERENCE TO THE PREFERRED ALTERNATIVE OF THE FOREST SERVICE:

These comments are filed for consideration in revising the Forest Plan, as follows:

1) **Wilderness Areas**—it is gratifying that the Forest Service has reviewed the concerns of those who spoke in favor of and against more Wilderness Areas. The Wilderness Area proposed to be added in Bath County is between two existing Wilderness Areas in the southeast corner of the Millboro Magisterial District, "Rich Hole Addition". The County has previously requested that no additional Wilderness Areas be included in its borders, largely due to public safety concerns. These Areas are supposed to remain roadless and remote, and feature access, forest management, trail cutting, and maintenance relying on "old-time" techniques. Were there to be a fire that needed to be quelled or a life to be saved within the Wilderness Area, and if the local fire and rescue were called, it would be difficult to respond quickly and effectively. Lives and property may be affected. The Forest Service has explained that it may ask interdepartmentally for permission to enter and take action as needed, a protocol which is another step to be taken in response to an emergency. **The locality remains concerned for public and private property that are adjacent to Wilderness Areas, and life saving measures when needed, and files its comment once again in non-support of additional Wilderness Areas in Bath County.**

2) **Wind Energy**—the County has addressed this type of energy development in its Comprehensive Plan, with prohibitions to assure no degradation of vistas and viewsheds that are a part of our tourism heritage. Tourism has played a major economic role in Bath County since the early 1700s. About 65% of our work force is employed in the tourism sector. It is of major concern to the County that there be no loss of employment or potential tourism development. As the County has worked toward zoning ordinances for wind energy, the public has said that it does not want any harm to come to the viewsheds and vistas, the cultural, historical, and natural features and environment that are of great importance to tourism in Bath County, providing its destination attributes. The public comments do not support wind energy placement in villages or on the mountains and ridgelines. Our zoning ordinance includes public utility generating only in the M-1 (industrial) category.

As the Forest Service states in a summary of significant plan issues: "Responding to opportunities to develop wind energy generation may result in effects on a wide variety of resources (including birds, bats, scenery, trail use, soils on ridgetops, water, noise, remote habitat, local communities/economies, and social values)."

There are selected ridgetop areas in the County where available wind energy reaches a level that it may be considered for utility development. The Class 7 variety is atop Back Creek Mountain and Warm Springs Mountain. There are some Class 6 spots that are on those mountains and appear on Alleghany Mountain and other ranges in the western part of the County. The County staff has reviewed the mountains where wind energy development would be considered by the Forest Service.

Bath County staff field review indicates that the mountains designated for potential windfarm development in Bath County are visible from the tourism overlooks, the major highways, and in the instance of Route 39—from a State Scenic Byway. The major entrance roads into the County (Routes 220 and the 39 Scenic Byway, and Route 687) would be affected by placement of wind farms in terms of intrusion on viewsheds. Turning off the major roads and traveling the rural back roads, as part of a tourism event such as biking or a driving tour, would be affected by intrusion of wind farms on the scenic mountain vistas.

Addressing only the potential economic effects of wind farms on tourism, tourists come to Bath County for its tranquility, beauty, the healing waters, artistic/cultural events, historic sites and villages, outdoor sports and recreational opportunities. The County is investing one-half of its Transient Occupancy Tax, obtained as a result of recent General Assembly approval requested by the County, toward the development of the tourism sector. Our efforts in that regard include a "blueprint plan" developed with the assistance of Virginia Tech, hiring a Tourism Director, development of new tourism events and public information, and coordination with the region on tourism development. The County needs tourism to thrive in order to sustain its economy, jobs, and ultimately the quality of life, health and wellbeing of its people. It is our major industry and the County is following its adopted plan for tourism.

The development of wind energy in a neighboring county has reportedly been correlated by tourism staffers with a drop in inquiries for information on potential relocation and tourism. A review of literature by the Bath County Tourism Director indicates similar concerns in other localities. With tourism employing 65% of our work force, the preservation and conservation of certain properties and vistas is a necessary component of the natural and historic resources tourists come to enjoy in the County. Two studies from Massachusetts and Scotland indicated that tourism spending in areas with a view of a large wind farm may be reduced by 5.1-13.6%. The possibility of reduced spending for tourism is not a healthy economic boost to a locality dependent for 65 percent of its employment on tourism.

The County's major economic base is tourism; however, it is important to note that other economic activity in the County involves services and construction. Where tourism assets encourage visitation and second-home decisions, the pristine natural environment cannot be degraded without potential harm to the strength of the Countywide economic base.

Aside from tourism economic concerns, there are several ecological concerns regarding development and implementation of wind energy on the mountains of Bath County including forest fragmentation, loss of habitat, the mortality of bats and birds, and soil and erosion effects. The County of Bath does not support any degradation of the mountain ecology within its borders.

The national forest occupies 51% of the County's territory and dominates the viewsheds relied upon for their pristine quality and biological diversity. These assets have underlain County tourism and community development for over 200 years. The County does not support wind energy development within or on any of the George Washington National Forest within Bath County.

The attached table provides some summary considerations regarding wind energy development.

3) **Timber Harvesting**—the County has a timber industry and some of its economic base is tied to harvesting and value-added activities, while some of its residents rely on gathering wood for heat. When the George Washington National Forest (GWNF) opens land for timbering and timber gathering, the businesses and residents have appreciated the source opportunity. The preferred alternative opens more land to timbering, but does not anticipate substantial increases in harvesting. Apparently the GWNF staff must conduct studies and receive approvals to provide timbering opportunities. The County supports nurturing the timbering industry and wood gathering, as an adjunct to forest diversity encouragement. **The County supports greater opportunities for harvesting and gathering wood from the National Forest.**

4) **Prescribed Burns**—County residents have commented in Regular Meetings of the Board of Supervisors to request that prescribed burns in the GWNF in Bath County not be scheduled when nesting is underway. Residents have said that field observations following prescribed burns noted abandoned nests and scorched eggs. **The County once again requests that prescribed burns not be undertaken in seasons when animals are reproducing and need forest cover.**

5) **Lateral Underground Drilling**—the County does not support any techniques used in resource exploitation which may potentially result in environmental harm—with particular reference to the lateral underground drilling techniques which may interfere with the water tables and water quality. **The preferred alternative of the GWFP excludes lateral underground drilling, and the County Board of Supervisors supports that exclusion given potential environmental degradation of the National Forest.**

As a "gateway community" within the beautiful George Washington National Forest, the Bath County Board of Supervisors hereby files these comments and respectfully requests that the proposed GWFP be revised to incorporate them. Thank you for sending the Plan documents and discussing some of the Plan's proposed features with the Board of Supervisors upon our request.

On behalf of the Bath County Board of Supervisors, best wishes as you continue your Plan development. Please let us know of the upcoming steps you will be taking and how the County may further participate.

Sincerely,

Bonnie Johnson

Bonnie Johnson
County Administrator

ATTACHMENTS (2: Table of Potential Assets and Liabilities; Prior letter and resolution on Wilderness Areas.)

Cc: The Honorable Senator Mark Warner
The Honorable Senator Jim Webb
The Honorable Congressman Bob Goodlatte
The Honorable Governor Bob McDonnell
The Honorable State Senator Creigh Deeds
The Honorable Delegate Ben Cline
Mr. Marek Smith, Program Director, Allegheny Highlands,
The Nature Conservancy
Honorable Members of the Bath County Board of Supervisors

CONSIDERATIONS REGARDING WIND ENERGY DEVELOPMENT IN THE GEORGE WASHINGTON NATIONAL FOREST IN BATH COUNTY, VIRGINIA

POTENTIAL ASSETS

Energy Source (for areas beyond Bath)

Helps Energy Companies meet VA Energy Plan (Volunteer, 15% Alternative Sources)

Affordable development consideration due to tax subsidies

Jobs during construction; however, fewer jobs thereafter for maintenance

POTENTIAL LIABILITIES

Environmental Concerns—

- Biological Harm (bats and birds in particular)
- Potential Ecological Harm (soil and plants disturbed)
- Noise and Flicker

Forest Fragmentation Effects—

- Loss of Land for Mountain Habitat and Uses

Major Land Use Decision beyond Local Control and Purview (land use determinations granted to localities in State law)

- Power generating an M-1 (industrial) use in the local zoning ordinance

Potential Conflicts with Tourism—

- Viewshed and Scenic Intrusion

Other Economic Concerns—

- Tourism Economy Effects on Countywide Jobs (direct and indirect)
- Property Values in Viewshed

Potential Irreversible Shortterm and Longterm Effects on Environment and Community

County of Bath
County Administrator's Office
P.O. Box 309
Warm Springs, Virginia 24484
(540) 839-7221
(540) 839-7222 FAX
www:bathadmn@tds.net

Sent also to Congressman Goodlatte and Senators Warner and Webb.

March 16, 2009

Mr. Ken Landgraf, Chief Planner
George Washington and Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

Mr. Patrick Sheridan, District Ranger, Warm Springs
George Washington and Jefferson National Forests
Route 1, Box 30
Hot Springs, VA 24445

Re: Wilderness Resolution by Bath County Board of Supervisors; Other Concerns Regarding the 1993 Plan Update

Dear Mr. Landgraf and Mr. Sheridan:

The Board of Supervisors of Bath County adopted the attached resolution in *opposition to additional wilderness areas in the National Forests in Bath County.* We will also share this with our Congressional representatives.

The Board of Supervisors asks that special attention be paid in the plan update to the following items:

1) *Public Access to the National Forests*– Public access enables the general public and the members of adjacent communities to go into the National Forests for recreation, cutting of wood, hunting, fishing, hiking, biking, horseback riding, camping, and other forest purposes. We have been told by commenters at the Board of Supervisors' meetings that the forests' gates are closed about 3 weeks too early to enable the hunters to use the full hunting season. We ask that the gates not be closed until after February 28th each year.

2) *Timbering*– Timbering is an important economic use of the forests. It is one means of employment in Bath County. We urge the National Forests to work toward additional implementation of timbering.

3) *Wind Energy*–Bath County is in the process of developing a wind energy ordinance. We request that the National Forest consider that ordinance in its development of wind energy policy. We also request that vista management and

protection of the ridge lines of the mountains be integrated in project consideration, unless for some reason the wind energy turbines are not visible to tourists. In Bath County, our mountains and scenery are very important as tourism attractions. We ask that you coordinate your planning for wind energy with Bath County.

4) *Controlled Burn as Part of Forest Management*– We understand the goal of having a diversified forest to encourage wildlife habitat, and the use of controlled burns as a part of forest management. Our citizens have requested that the timing of the burns be controlled so that nesting animals are not disturbed.

5) *Trails and Tourism Development*– The recreation potential for the George Washington National Forest is an asset to the economy of Bath County. We ask that the Forest Service coordinate and work with Bath County on developing the recreation potential as appropriate. Bath County anticipates the development of a tourism plan and we look forward to working with the National Forests.

6) *Water Quality*– Bath County finds that watershed and water quality management may be combined with allowance of ground disturbing activities that are managed and controlled, and trail development may be combined and compatible with water protection activities.

The Board of Supervisors has requested that it be informed of and allowed to comment on the draft that is produced to update the 1993 plan.

We appreciate the work of the George Washington and Jefferson National Forests, and look forward to partnering on public projects of mutual interest.

Best wishes,

Sincerely,

Percy C. Nowlin, III
Chairman of the Board of Supervisors

Attachment (wilderness resolution)

Cc: Honorable Members of the Board of Supervisors and the Planning Commission
Bonnie Johnson, County Administrator
Sherry Ryder, Planning and Zoning Administrator

RESOLUTION IN OPPOSITION TO ADDITIONAL WILDERNESS AREAS IN BATH COUNTY, VA

WHEREAS, The Bath County Planning Commission passed a resolution in opposition to additional wilderness areas on January 26, 2009, after hearing a presentation from a U.S. Forest spokesperson on the proposals being considered for integration into the Plan for the National Forests (including the George Washington National Forest); and

WHEREAS, The Board of Supervisors had a similar presentation made to it on the planning ongoing for the National Forests in Bath County; and

WHEREAS, The Board of Supervisors requested a resolution be prepared in opposition to additional Wilderness designations within Bath County in the National Forest, and be provided to our Congressional representatives and the U.S. Forest Service; and

WHEREAS, The Board of Supervisors finds that there are substantial public safety concerns associated with Wilderness areas such that modern fire apparatus may not be brought into them without special permission from U.S. Forest Offices located in Atlanta and Richmond, and that about 51% of the land mass of Bath is in National Forests; and

WHEREAS, The Bath population is a community in the midst of National Forests and subject to any risk associated with the Wilderness area (with 176,809 acres of National Forest in the 345,500 acres of land area in Bath County); and

WHEREAS, Timbering is vital to the Bath economy and cannot be undertaken as an industry in Wilderness areas; and

WHEREAS, Trails may not be cut through the Wilderness area, nor maintenance undertaken except in a primitive fashion, nor may vehicles enter it, so that recreational potential is thereby hampered for the general public; and

WHEREAS, Public testimony to the Board of Supervisors with regard to establishing additional wilderness in Bath County indicated that the community objects to:

- Lack of access for public safety and emergency services
- Firefighting prohibitions and regulations which may enable a blaze enough time to spread through the forest and reach the built community
- Lack of access for the handicapped and disabled due to lack of trails, established and maintained not only for walking but also vehicles
- Restricted use of the forest for wood gathering, timbering, and other forest uses as a result of lack of access

WHEREAS, Wilderness designation may restrict the public's input on present and future forest management; and

WHEREAS, there is already a Wilderness area designated in Bath County of 9,100 acres.

NOW, THEREFORE, BE IT RESOLVED, That the Bath County Board of Supervisors urges the Congress of the United States not to create more Wilderness areas in Bath County, Virginia where the George Washington National Forest is located; and

BE IT FURTHER RESOLVED, That the Bath County Board of Supervisors respectfully submits this resolution for consideration by the Congress and the U.S. Forest Service (which includes the George Washington National Forest in its care); and

BE IT FURTHER RESOLVED, That the Bath County Board of Supervisors seeks the support of the Congress and the U.S. Forest Service to not create additional wilderness areas in Bath County; and

LASTLY MAY IT BE RESOLVED, That a copy of this resolution be spread upon the minutes of the March 10, 2009 Board of Supervisors' meeting and a copy sent to our Congressional representatives.

ADOPTED: March 10, 2009

Perdy C. Nowlin, III
Chairman
Board of Supervisors
County of Bath, Virginia

Bonnie Johnson, Clerk

Letter# 257

VIRGINIA LOGGERS ASSOCIATION INC.

July 12, 2011

Mr. Ken Landgraph
US Forest Service
5162 Valleypointe Parkway
Roanoke, VA 24019

Dear Ken:

The Virginia Loggers Association has been pleased to be part of the planning process on the George Washington National Forest. The sessions have been informative and while a consensus was not reached the "Stakeholders Group" meetings were valuable as well.

The Virginia Loggers Association continues to support the "1% Solution" to the level of timber harvesting section. We believe that for timber, wildlife, ecological, and economic reasons, that the portion of the forest not already in a protection designation area should be managed on a 100 year rotation. We also believe that a single target number should be used, and that it should reflect the entire 10 year management term. We recommend 43,000 acres for the ten year plan.

We are very aware of the budget restrictions currently in place, but feel the plan should stand on its own regardless of the budget constraints. This 1% plan is well suited to the needs of both timber and wildlife supporters, and to a lesser extent, both bike and horse trail riders. Our membership depends on available timber and we are very concerned over the lack of federal timber in the past years.

We strongly encourage you, and the entire staff to put forestry back in the national forests and manage on the multiple use concepts that the forest was established under. We believe there is room for all interest as expressed in our support of the "Stockholder" resolution. We will be withholding our support of further federal designations pending support of our timber position by the environmental groups at this time.

We again thank you for the time you have spent on this plan and your visits with our Board of Directors. We look forward to the final draft and hope to continue working with you for the benefit of both our members and the forest as a whole.

Sincerely

Jim Mooney, Executive Director.

33 Morewood Place • Palmyra, Virginia 22963 • Phone: (434) 589-1942 • Fax: (434) 589-6345
E-Mail: VaLoggersAssoc@aol.com

Letter# 258

319 Mary Gray Lane
Staunton, VA 24401

July 21, 2011

Forest Service Supervisor's Office
5162 Valleypointe Parkway
Rpample. VA24-19

Dear Sir:

Concerning the George Washington National Forest Draft Plan

The Forestry Draft Plan presented at the Verona Government Center is a commendable attempt to satisfy the competing
pressures on the Forest. I laud the restriction on horizontal hydro fracking. However, my purpose in writing is to urge the
Forest Service to further amend the Draft Plan to more closely reflect the Sierra Club's recommendations. Specifically,
outlaw all drilling, horizontal or vertical or diagonal, for water, oil, or gas. Outlaw or do not permit any leases.

Leases restrict the use of the public lands in the future when conditions are changed or unknown. Leases permit private
interests to benefit unfairly from public land and to harm land which should be preserved for all.

Drilling never restores the land to its original state. Drilling always disturbs surrounding land and access roads for heavy
equipment are incompatible with natural habitats. Drilling is always at risk of accidents which can devastate the affected
area for many years: The Gulf, The Artic.

Water. This is the resource of which no more is being created and without which life is not possible. We must protect
our water sources at all costs. We should never compromise water sources to private gain, energy, or jobs.

Thank you.

Sincerely,

Constance Birch

Letter# 259

George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valley Pointe Parkway
Roanoke, VA 24019

July 21, 2011

To Whom It May Concern:

I would like to comment on the draft management plan for the George Washington National Forest:

- Drinking water: We should maintain the strongest possible restrictions on the forest in order to protect the drinking water for neighborhood communities.
- Forests: A critical component of the plan should be adequate protection of large areas of mature, undisturbed forest. Since forest roads have many negative ecological impacts there should be NO limit on the number of roads that can be closed. All old growth patches in the forest should NOT be considered for harvesting.
- Protection: The Forest Service has wisely recognized the need to preserve large "core" areas within the national forest, in order to conserve biological diversity, promote forest resilience, and facilitate adaptation to climate change. However, protection of only some roadless areas and minimal wilderness study recommendations in the draft plan do not go far enough in creating these important core areas. Restrictions on logging and road building apply to only one-third of these newly identified areas. Restrictions should apply to ALL of them.
- Wilderness Study Areas: The draft plan is lacking in making sufficient recommendations for wilderness study areas. The 20,300-acre recommendation is inadequate.
- Extraction: Prohibit ALL horizontal drilling, or any configuration there of, especially hydraulic fracturing (fracking). More than half of the forest will be potentially available to standard oil and gas leasing. This four-fold increase from the current plan will have severe negative environmental impacts. There should be NO increase in these practices.

Thank you for the opportunity to comment on the draft plan.

Respectfully submitted,

Rebecca Minor

George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valley Pointe Parkway
Roanoke, VA 24019

July 21, 2011

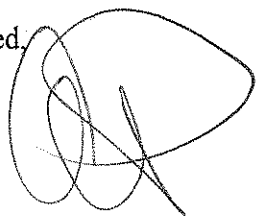
To Whom It May Concern:

I would like to comment on the draft management plan for the George Washington National Forest:

- Drinking water: We should maintain the strongest possible restrictions on the forest in order to protect the drinking water for neighborhood communities.
- Forests: A critical component of the plan should be adequate protection of large areas of mature, undisturbed forest. Since forest roads have many negative ecological impacts there should be NO limit on the number of roads that can be closed. All old growth patches in the forest should NOT be considered for harvesting.
- Protection: The Forest Service has wisely recognized the need to preserve large "core" areas within the national forest, in order to conserve biological diversity, promote forest resilience, and facilitate adaptation to climate change. However, protection of only some roadless areas and minimal wilderness study recommendations in the draft plan do not go far enough in creating these important core areas. Restrictions on logging and road building apply to only one-third of these newly identified areas. Restrictions should apply to ALL of them.
- Wilderness Study Areas: The draft plan is lacking in making sufficient recommendations for wilderness study areas. The 20,300-acre recommendation is inadequate.
- Extraction: Prohibit ALL horizontal drilling, or any configuration there of, especially hydraulic fracturing (fracking). More than half of the forest will be potentially available to standard oil and gas leasing. This four-fold increase from the current plan will have severe negative environmental impacts. There should be NO increase in these practices.

Thank you for the opportunity to comment on the draft plan.

Respectfully submitted,



Letter# 261

THE CITY OF LYNCHBURG, VIRGINIA

525 Taylor Street, Lynchburg, VA 24501
www.lynchburgva.gov
TEL: (434) 455-4250
FAX: (434) 845-7353

DEPARTMENT OF UTILITIES

July 27, 2011

George Washington National Forest
Forest Plan Revision
5162 Valleypointe Parkway
Roanoke, Virginia 24019-3050

RE: Comment - Draft Environmental Impact Statement and Draft Forest Plan

The City of Lynchburg has withdrawn water from the Pedlar Reservoir and the James River for over 100 years. Both of these sources are essential for the welfare of 23,000 customers in the City of Lynchburg and parts of Amherst, Bedford, and Campbell counties.

We take this opportunity to express the City's concern about changes to the Forest Plan that might affect the City's drinking water quality.

The Pedlar Reservoir, Lynchburg's primary source of water, is listed in Table 2.7, Drinking Water Supplies Within or Downstream of George Washington National Forest. Its 34 square mile watershed is listed as a Priority Watershed in Appendix D. The Watershed Management Approach, in Chapter 3, assigns a priority to these watersheds for inventorying soil and water improvement needs, restoring streams and streamside systems to fully functioning systems, restoring habitat for sensitive aquatic and riparian species, addressing opportunities to reduce impacts from roads through relocation or decommissioning, and evaluating new proposals for special uses that could affect water quality. We support these general management objectives; however, the management approach does not specifically prohibit geological carbon sequestration or drilling and hydrofracturing of the Marcellus formation, both activities that could lead to contamination or degradation of the Pedlar watershed and drinking water supply. Instead, the management approach clearly leaves the door open for further consideration and administrative action. Geological carbon sequestration is still in the research stage. The safety record for Marcellus shale drilling and fracking is mixed. Regulation and enforcement are weak. Fracking uses unregulated proprietary mixtures of toxic chemicals and large quantities of water. Recovery, treatment, and disposal are uncertain.

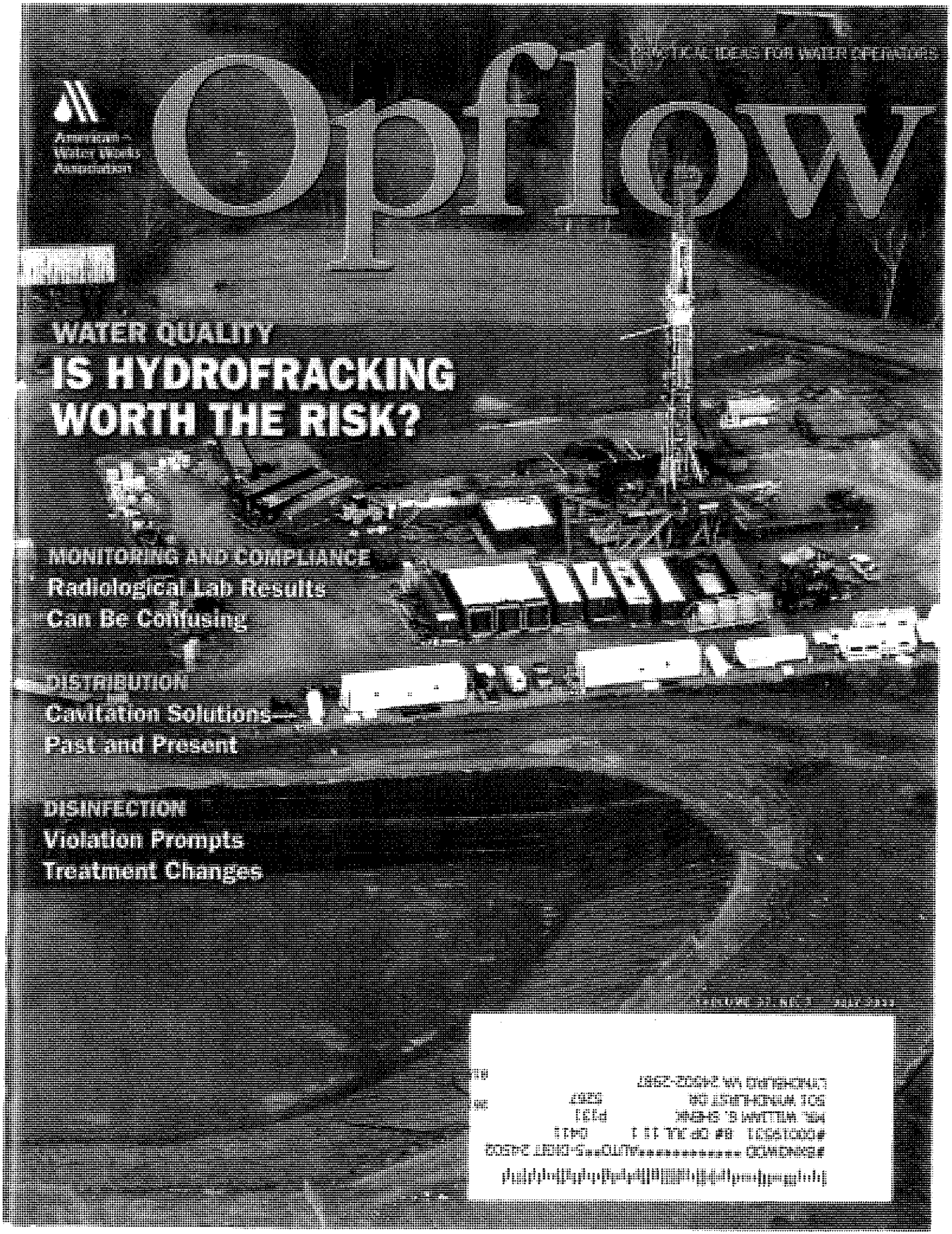
The City withdraws water from the James River several times each year during emergencies caused by drought, dam maintenance, or pipeline failures. These intakes are listed in Table 2.7, Drinking Water Supplies Within or Downstream of George Washington National Forest. The locations and details of these intakes are registered with the Virginia Department of Environmental Quality Office of Water Supply Planning. Many tributaries flowing from the Forest empty into the James River upstream of these intakes, exposing the intakes to the same potential for contamination and degradation.

Given the lack of effective regulation, unproven technology, and questionable safety, the City of Lynchburg supports a moratorium on these techniques for Priority Watersheds and Downstream Water Supplies. If such a moratorium is enacted, it should remain in force until repealed through the revision process and not by administrative action.

Sincerely,

Timothy A. Mitchell, P.E.
Director

Attachment (with author's permission): Hydrofracking Is It Worth the Risk?



PRACTICAL IDEAS FOR WATER OPERATORS

Opflow

American Water Works Association

WATER QUALITY

IS HYDROFRACKING WORTH THE RISK?

MONITORING AND COMPLIANCE

Radiological Lab Results Can Be Confusing

DISTRIBUTION

Cavitation Solutions Past and Present

DISINFECTION

Violation Prompts Treatment Changes

Paul R. Easley is environmental manager for the Fort Smith Utility, Fort Smith, Ark.

Controversy surrounds the current implementation of hydraulic fracturing technology in the United States. Environmental safety and health concerns are being debated at state and national levels. BY PAUL R. EASLEY

HYDROFRACKING IS IT WORTH THE RISK?

HYDRAULIC FRACTURING, also known as "hydrofracking" or "fracking," is the use of high-pressure fluids to force open seams in natural gas-rich rock to allow gas to be extracted (see figure, page 12). Although it's an old technique, hydrofracking has increased in the last few years as a way to extract gas from sizable but hard-to-reach deposits.

Hydrofracking is used in 90 percent of the nation's oil and natural gas wells and has been instrumental in accessing huge new natural gas deposits trapped in shale formations. Large shale-gas formations where hydrofracking is used include the Barnett (Texas), Fayetteville (Arkansas), Haynesville (Louisiana), and Marcellus (the Northeast) formations.

Environmental and human health concerns associated with hydraulic fracturing include the contamination of groundwater, risks to air quality, the migration of gases and hydraulic fracturing chemicals to the surface, and potential mishandling of waste. The potential costs associated with possible environmental cleanup processes, loss of land value, and human and animal health concerns are undetermined. However, the process introduces hundreds of tons of fracturing chemicals into a watershed over a period of several decades and could be accompanied by gradual dispersion of low levels of toxic chemicals into the environment and water supplies through multiple pathways.

THE HYDROFRACKING PROCESS

Hydrofracking uses vast quantities of water and could intensify drought during dry periods. However, as shown in the table on page 13, the real hazard is the mix of numerous toxic chemicals and materials that can be used in the hydrofracking process. A cocktail of an estimated 260 to more than 500 chemicals is used for natural gas fracking. Most drilling companies are reluctant to disclose the exact mix and quantities of chemicals used in the process, because they consider the information proprietary.

Despite the risks, the US Congress in 2005 exempted hydraulic fracturing, except fracturing with diesel fuel, from Safe Drinking Water Act (SDWA) regulations. Diesel fuel used for fracking is the only substance for which drillers must seek a permit. Technically, fracturing can be done using just water and sand, but doing so costs more and is inefficient. According to the drilling industry, hydrofracking works much better when chemicals such as diesel fuel, methanol, hydrochloric acid, and formaldehyde are added to the mix.

However, current protective measures usually fail to consider potential harmful effects of the hydraulic fracturing process and associated fluids. Because of relatively new, widespread use of hydraulic fracturing, there's a regulatory void in most states. Also, regulatory difficulties are further complicated by mineral rights and split estates.

Site Management. The problem with natural gas drilling isn't necessarily the drilling of wells and distribution of the gas; it's managing the site and fate of drilling fluids that cause concern. Improper disposal of recoverable drilling fluids and mismanagement of wastes in "tank farms" has led some state environmental agencies to develop additional measures to prevent unnecessary surface discharge of these contaminants.

Environmental Exposure. Because hydrofracking's main purpose is to force open channels in rock to facilitate upward movement of liquids and gases, it's no surprise that hydrofracking chemicals can enter the environment. That's bad under any circumstances, but it can be particularly harmful when the chemicals enter the environment in or near a water source or watershed. High-volume hydraulic fracturing and horizontal drilling can pose unacceptable threats to the water supplies of many people. The problem will persist because much of the natural gas reserves discovered in the last few years require hydrofracking for exploitation.

Hydrofracking Details

Hydrofracking causes seismic-like activity, breaking up rock and opening many veins in the earth, thus releasing the gas.

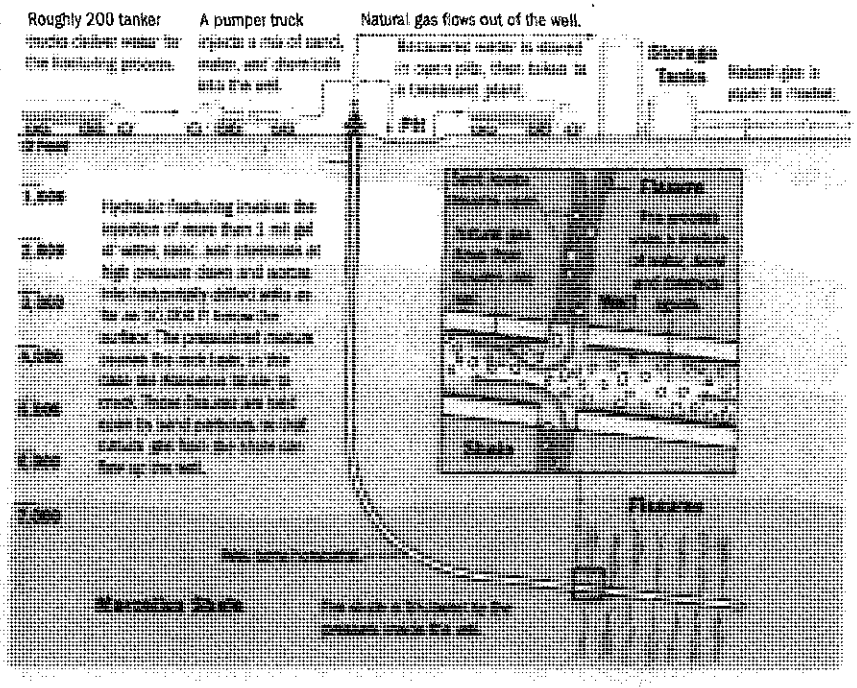


FIGURE: PROPUBLICA

WIDESPREAD DAMAGE

Hydrofracking concerns include

- Withdrawals of water to support hydraulic fracturing during dry periods could increase the duration of drought.
- The process can produce an industrial-strength waste stream characterized by exceptionally high concentrations of a wide range of substances with possible adverse health and water quality effects.
- Chronic and persistent occurrence of small-scale surface spills and contamination incidents may accompany the hydrofracking process and reduce public and regulatory agency confidence in the quality and safety of a water supply.
- Hydrofracking waste can be expected to exceed existing treatment and assimilative capacities.
- There's a lot of uncertainty as to whether current treatment processes effectively remove these waste components and whether sufficient treatment capacity will be available in the future.

Hydrofracking has been linked to drinking water contamination and property damage in Colorado, Ohio, Pennsylvania, Wyoming, and other states. In Pennsylvania, gas well drilling contamination of water wells has forced people from their homes. In West Virginia, Dunkard

A water utility with a groundwater or surface water supply and associated watersheds located in a shale-gas formation should be concerned about potential effects natural gas drilling projects can have on its water supply.

Creek was used to dispose of gas well fluids. This disposal caused golden algae, which thrives on salt, to bloom, killing most of the creek's aquatic life. Near some hydrofracking sites in Colorado and Canada, people have set fire to gas contaminated well water as it pours from their taps or bubbles up out of the earth.

REGULATORY ACTION

Although specific problems have been reported in some states, hydrofracking is a nationwide concern.

For example, after several exploration companies purchased leases and applied for permits, many New York water suppliers expressed concern about the impact of hydrofracking on water quality and watersheds. That concern prompted the New York State Department of Environmental Conservation (DEC) to issue an 802-page draft Supplemental Generic Environmental Impact Statement (SGEIS) about how to regulate natural gas drilling. The draft language was presented for public comment. The full text of the draft impact statement is available at www.dec.ny.gov/energy/58440.html.

In response, the US Environmental Protection Agency (USEPA) submitted 14 pages of comments to the New York DEC, in which USEPA recommended that New York's proposed rules for high-volume hydrofracking be expanded significantly and include greater emphasis on potential health effects that could be associated with natural gas drilling. USEPA officials urged DEC to partner with other state agencies to more thoroughly analyze the cumulative and indirect effects of gas drilling. Federal regulators were particularly concerned about the potential risks of gas drilling in watersheds for New York City and across New York state.

In view of increased hydrofracking and concerns raised by the public, the media, and Congress, USEPA announced in March 2010 that further study of the topic may be warranted and requested scoping materials for initial design of a USEPA research study on potential relationships between hydraulic fracturing and drinking water resources. The study is being conducted through USEPA's Office of Research and Development. Additional information about the project and hydrofracturing can be viewed at www.epa.gov/safewater/uic/wells_hydrofrac.html.

CAUSE FOR CONCERN

A water utility with a groundwater or surface water supply and associated watersheds located in a shale-gas formation should be concerned about potential effects natural gas drilling projects can have on its water supply. It's worth additional effort by water utility managers and government regulators to make decisions based on sound scientific practices and economic benefits.

Communities stand to benefit enormously from profits associated with natural gas exploration. However, the wealth may come at the cost of one of the most precious commodities on earth—clean, safe drinking water.

Potential Hydrofracking Chemicals (not inclusive)

Many chemicals identified in fracturing fluid may cause health risks that range from rashes to cancer.

2,2-Dibromo-3-Nitrilopropionamide	Glycol Ethers
2-butoxyethanol	2-methyl-4-isothiazolin-3-one
5-chloro-2-methyl-4-isothiazotin-3-one	Isopropanol
Acetic Acid	Polyglycol
Acetic Anhydride	Alphatic Acid
Alphatic Alcohol	Ammonia Persulfate
Aromatic Hydrocarbon Mesh Sand	Aromatic Ketones
Boric Acid	Mineral Spirits
Boric Oxide	Monoethanolamine
Butan-1-01	Citric Acid
Cristobalite Polyethoxylated Alkanol (1)	Sodium Bicarbonate
Crystalline Silica	Polyethoxylated Alkanol (2)
Dazomet	Dazomet Polyethylene Glycol Mixture
Diatomaceus Earth	Diesel (use discontinued)
Ethane-1,2-diol	Ethoxlated Alcohol Prop-2-yn-1-01
Ether	Isopropyl Alcohol
Ethoxylated Alcohol	Ethoxylated Alcohol Propan-2-01
Ethoxylated Octylphenol	Propargyl Alcohol
Ethylene Glycol	Ethylhexanol
Ferrous Sulfate Heptahydrate	Formaldehyde
Glutaraldehyde	Sucrose
Guar Gum	Hemicellulase Enzyme
Hydrochloric Acid	Hydrotreated light distillate
Mesh Sand (Crystalline Silica)	Methanol
Monoethanolamine	Petroleum Distillate Blend
Polyethylene Glycol Mixture	Polysaccharide
Polysaccharide	Propylene
Potassium Carbonate	Potassium Hydroxide
Sodium Chloride	Sodium Hydroxide
Tetramethylammonium Chloride	Magnesium Nitrate

Rec'd 7/29/11

Letter# 262

Dear Sir or Madam:

I am writing to express in the strongest terms that I am completely and one hundred percent opposed to mining for Natural Gas in the George Washington or Jefferson National Forrest via the process known as Fracking. I have been informed that there is a draft proposal to prevent fracking and I am writing in support of that plan to prevent fracking in our National Forrest. Furthermore, I am writing so that you will know that there are many citizens in this area that are opposed to this form of mining.

Please realize the seriousness of this precarious situation. The fracking process is completely detrimental to human health. It is also an environmental disaster for our National Forrests. I have seen videos of people igniting the water that comes out of their faucets in their kitchen sink. I have watched videos of persons driven off their ranches in Western states by this process. So polluted was the water and air by this process which was occurring on or near their ranch lands that it was either leave or live as virtual prisoners in their own homes and then die an early death. Our national forest should be managed to promote healthy sustainable long term environmental and economic health to our region. Fracking does just the opposite. Fracking creates major water and air pollution and involves the use of known toxins being introduced into our water shed. Fracking creates short term financial benefits to a very small number of persons who manage or work for large energy corporations most of whom do not live in this area or even in the state of Virginia. This beautiful ShenandoahValley is a remarkable place. It's beauty is unmatched. Our biggest asset and our strongest assurance that this part of the world remains a place of beauty is a firm commitment by the citizens of this region to maintain a healthy environment. Fracking would be a sure loser for the Shenandoah valley in both economic and environmental terms. Please do everything in your power to ensure that Fracking is not allowed in the George Washington National Forrest or any other state or private lands in Virginia.

Sincerely,

William Leigh
106 Tiffany Drive
Bridgewater VA 22812

Letter# 263

August 5, 2011

George Washington National Forest
Forest Plan Revision
5162 Valleypointe Parkway
Roanoke, VA 24019

Re: Forest Plan Revision Allowing Wind Energy

To Whom It May Concern:

Thank you for the opportunity to comment on the draft revision for the George Washington National Forest.

Two years ago my wife and I bought property in Little Valley, Bath County Virginia for our retirement home. The property adjoins George Washington National Forest Tract 1287C on the west side of Jack Mountain. We recently started construction on the home. The house site has an expansive view of Jack Mountain, Big Valley, the Bolar Gap, and national forest lands. Nevertheless, we placed the house in a location where it cannot be seen by any of our neighbors, in order to preserve their natural viewshed. We recently learned that the National Forest Service will consider placement of wind turbines on our public ridgetops in the George Washington National Forest, including our public ridgetops in Bath County.

I am adamantly opposed to the placement of wind turbines on our public lands, including our public lands comprising the George Washington National Forest in Bath County. The forested ridges of the Appalachian mountains are the heart and soul of America's eastern highlands. The beauty of these ridges is ingrained in my psyche, as it is for all of the residents and visitors to this area. This natural beauty gives us comfort, and inspiration, and reminds us that our Creator did indeed give us a Garden of Eden. Placement of wind turbines on these ridges would destroy the legacy of these mountains, and create a waking nightmare for all those who live in, or visit this area.

Placement of wind turbines on our National Forest ridgelines would also adversely affect local tourism, and economic development. Folks are drawn to these mountains because of their natural beauty. Fewer people will visit, fewer people will use local businesses, and fewer people will choose to settle in these areas if wind turbines are placed on our ridgelines.

Wind turbines are detrimental to wildlife, particularly bats and birds. Our ridgelines should be left free of wind turbines to allow free and safe access to bats and birds, including migrating birds.

Wind energy may be a temporary short term component in our transition away from harmful fossil fuels to environmentally friendly, renewable energy resources. However, placement of wind turbines on our public lands comprising the George Washington National Forest is ill conceived. The impact to our viewshed and to those that are unfortunately close enough to endure the ongoing low frequency sound pollution from the turbines is not acceptable. Waking up in the morning and going out on the porch to look up at the wind turbines is not my idea of how to start out the day. Walking under wind turbines is not my idea of how to hike. Driving down our country roads and looking up at wind turbines is not my idea of a scenic drive. Seeing, hearing and feeling the turbines day and night is not my idea of how to retire.

Wind turbines may be temporarily suitable if they are placed in, or near the population centers that they will serve. We can understand placing them on buildings or towers near Richmond, Norfolk, Washington, Baltimore, or any of the large urban areas. These are the areas that use the most energy, and these are the areas that are already blighted by unnatural buildings, roads, bridges, shopping centers, and all the other accutrements of modern urban life. Wind turbines placed in or near the cities would likely be

seen only as a curiosity by the residents and visitors. Wind turbines placed off shore out of site of the coast would also be suitable to serve the large population centers near the coast, and this may be the best wind energy alternative possible, if, in fact, wind energy is used at all.

The idea of placing the turbines on ridgetops in our area to serve cities far away is aggravating, to say the least. We use very little electricity. We have designed a passive solar home, and we will use the sun and wood heat as our primary heat sources. We use an average of 20 KWH of electricity per day in our current home, and expect to use the same amount when we move to our retirement home in Bath County in the spring.

Frankly, I am surprised that George Washington National Forest officials would even consider allowing wind turbines on our public lands. I would think that Forest Service officials, more than most, would understand the beauty of these Appalachian ridges, and would be opposed to such an idea. I think that there is a good chance that in your heart of hearts you are opposed to this concept, and have capitulated. If that is the case, please stand up, and let your voice be heard in opposition to this ill conceived concept.

I believe that solar and geothermal energy will be the most effective renewable energy resources moving forward, and I would not be opposed to limited development of these energy resources in the George Washington National Forest.

However, I am completely opposed to placement of wind turbines on ridgetops in the George Washington National Forest because of their blight on the natural viewscape, their negative impact to tourism, economic development, and growth, and their negative impact on wildlife. I will fight to keep wind turbines off of the ridges of the George Washington National Forest to my last breath.

Thank you for the opportunity to let my voice be heard. I love the George Washington National Forest, and I appreciate your stewardship of this national treasure.

Sincerely,

William F. Limpert

William F. Limpert

Letter# 264

CATHERINE C. STRICKLER, CHAIR
CLIMATE ACTION ALLIANCE OF THE VALLEY
540-434-8690
contactcaav@gmail.com
1225 Hillcrest Drive
Harrisonburg, VA 22801

August 9, 2011

George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway, Roanoke, VA 24019

Dear Planning Team:

We are submitting comments about the George Washington National Forest Plan revision on behalf of the Climate Action Alliance of the Valley (CAAV), a group of citizens from Virginia's Shenandoah Valley concerned about climate change.

Although much of our effort is toward educating people to change their use of carbon-based energy and promoting political policies that will reduce the speed of climate change, we are concerned about how the George Washington National Forest will be managed for the next 15 years. Forests will play a critical role in our adaptation to a warmer climate. As our climate changes, it will be important to protect habitat resilience. To this end we would like to see protection of core road-less areas and connectivity between those areas that will allow migration of plant and animal species trying to adapt. Please keep road construction and other activities that fragment the forest to a minimum. In addition to helping species adapt, healthy forests sequester carbon from the atmosphere.

In our efforts to educate our fellow citizens to live more sustainably, we encourage people to drive their automobiles less. The George Washington National Forest offers many recreational opportunities that families in our locale can enjoy close to home. We ask that you manage the national forest to maintain recreational opportunities such as hiking, biking, fishing, hunting, camping, and studying nature.

The pure water flowing from the George Washington National Forest is a valuable asset that will help humans cope with climate change. As water becomes scarcer and population grows, this supply will increase in value. Please manage the national forest to protect water quality.

While CAAV promotes the use of sustainable energy sources, such as wind, we do not think industrial wind development should take place in the George Washington National Forest. Development of offshore wind would be more appropriate and far more productive. Our national forest is more valuable for habitat, carbon sequestration, recreation, and water. We also oppose gas development by hydro-fracking as this would endanger our water and fragment the forest.

CAAV endorses the Friends of Shenandoah Mountain Proposal and would like to see the proposal recommended in its entirety in the Forest Plan. We appreciate the addition to Ramseys Draft and the recommendation of Little River for Wilderness in the draft, but we ask that you also recommend Skidmore Fork and Laurel Fork for Wilderness and Shenandoah Mountain and Kelley Mountain-Big Levels for National Scenic Area designation in your final plan. The Shenandoah Mountain Proposal is attractive to us because, if enacted by Congress, it would offer permanent protection of Shenandoah Mountain, Laurel Fork, and Kelley Mountain-Big Levels.

Thank you for the opportunity to comment on the draft plan.

Sincerely,

Catherine C. Strickler

Catherine C. Strickler

Letter# 265

August 10, 2011

Mr. Elwood Burge, District Ranger
George Washington National Forest
North River Ranger District
401 Oakwood Drive
Harrisonburg, VA 22801

Dear Ranger Burge;

Thank you, you gave an excellent discussion of the proposed Forest Plan. Thanks for leaving the maps and the "Most frequently Asked Questions". After the business meeting, members looked at the proposed plan map and were discussing your presentation. Several of our members came to me afterward and told me that they really liked your program. Rick Layser said that he enjoyed your presentation, primarily because it was not the same one he had heard before.

Thank you again for being our guest speaker.

Lew Manhart
Director, Middlebrook Ruritan Club

cc: Forest Supervisor, George Washington-Jefferson National Forests

Please make my remarks a part of the permanent record. AN

Letter# 266

George Washington NF Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

8/12/2011

Thanks for this opportunity, and for the opportunity to exchange ideas and to learn from many of your personnel during the meeting at Verona, VA last month.

My concerns remain the same as in my written comments from earlier this year and two years ago. Doing what can be done to minimize road-building in the Forest--the primary entry area for invasive flora and fauna--as well as the invitation they offer for illegitimate uses of the forest by humans. More and more I see "camps" which look more like temporary homes, with old car seats and the like. Dumping of trash continues, and with the budget cuts you have endured for years, I know you haven't the personnel to deal with many of these challenges. I fear that putting nearly half the forest in the "mosaic" classification will exacerbate many of these problems, since you can neither cut nor burn without building more roads, can you? Helicopter management is quite expensive. Larger cutting areas on existing roads where invasives already have the upper hand, and leaving the less disturbed areas undisturbed as long as possible is a better plan for ecosystem-wide management, I think.

I note that public watersheds are by no means all protected. While this year's rains have been wonderful, last summer's drought certainly gave us advance notice that can change very quickly. Meanwhile, the populations of Winchester, Harrisonburg, Staunton and associated towns have increased dramatically, with no signs of slowing. I would like to see a higher level of watershed protection.

I'm disappointed that the proposed Shenandoah Mountain National Scenic Area has not been endorsed, that roadless area protection has increased only minimally, and very little increase in wilderness areas proposed. Of all the east coast national forests, Virginia has the least protection. I am perfectly aware that the current political situation makes increasing wilderness difficult, if not impossible. But if it isn't at least proposed, then it can't be carried forward to a more favorable time; Once those areas are roadless no longer, can it be done at all? Please consider increasing that protection. The inclusion of Shenandoah Mountain as a National Scenic Area has endorsement of dozens of groups, hundreds of businesses, and perhaps thousands of individuals. Only loggers can't stand it. Please reconsider your stand on this proposal.

Hydrofracking! It MUST be specified that hydrolic fracturing may not be used in the forest. Merely specifying vertical drilling does not rule that out. As you point out, the layers of the Marcellus shale within the forest are vastly folded anyway, so any attempt at gas retrieval is unlikely to use horizontal drilling in the strictest sense. The effects on water use, road damage and soil and water contamination alone should preclude hydrofracking at all. There will be a LOT of material to dispose of. A great deal of methane gas is lost to the atmosphere, and it is a very potent greenhouse gas. Once you have changed the channels underground with this violent and unregulated practice, it

cannot be undone, and no one can yet predict how it may affect water supplies and quality many years from now. We all know that when $$ are on the line, if there are loopholes in the requirements, they will be found. There are many hungry lawyers associated with this practice.

On the other hand, I am delighted to see that more old growth forest will be retained. They are important as refugia for many species. Managing the forest for species migrations as climate change progresses is immensely important. It is happening now, and it does not appear that our current Congress is capable of dealing with it, nor any other complexity.

I am a biologist, retired college professor. In association with others in the Shenandoah Chapter of the Virginia Native Society, I was involved for years in volunteering to monitor invasive plants as well as prime populations of native plants deserving protection near roads through the GWNF in Rockingham and Augusta Counties. In many areas it is such a beautiful place, and native populations are thriving. In others, invasives are a major concern. I am very aware of the effect that economic and political pressures, as well as population growth, have on management of the forest. The bottom line should be "do no harm". As we sometimes don't know what that involves for decades after an action is taken, certainly erring on the side of caution can be urged.

Thank you, to each of you that have so painstakingly taken part in the planning process. Thanks to the several generations of foresters that have preceded you, taking land that frequently was denuded and abandoned, and helping to foster the living, breathing forest that we now enjoy and depend on. We have learned some things about the effects of forest management in the last century. It is my prayer that a century from now, our great grandchildren will think you did well in conserving the forest for them.

Sincerely,

Anne W. Nielsen
661 Silver Lake Rd
Dayton, VA

Letter# 267

Ed and Barbara Kyle
5124 Falcon Ridge Road
Roanoke, VA 24018
540-772-0244

August 13, 2011

Maureen Hyzer, Forest Supervisor, and Planning Staff
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

Dear Supervisor Hyzer:

Please consider the following comments while you develop and approve a final plan for the George Washington National Forest plan.

As you know, the George Washington National Forest is one of the most important collections of federal lands in the greater Chesapeake Bay watershed. It is not only incredibly important for the health of our planet but is also a treasured destination for many in Virginia and the surrounding region.

Please plan for **climate change** by protecting core wilderness areas, reducing forest fragmentation and decreasing and eliminating non-climate stresses such as logging, road building and oil and gas leasing.

I support the ban on horizontal natural gas drilling proposed in Alternative G and other alternatives, and would like all hydrofracking banned on the Forest.

Protect all areas identified in the Virginia's Mountain Treasures publication to the degree possible by designating them as unsuitable for timber harvest, new road building, and surface-occupying oil and gas drilling.

Protect all roadless areas to the greatest extent possible. The Forest Service should identify all qualified roadless areas and protect all roadless areas, whether previously inventoried or recently identified, consistent with the provisions of the 2001 Roadless Rule.

Designate More Wilderness Areas. Only 4% of the George Washington National Forest is permanently protected Wilderness, far less than the national average of 18%. More wilderness (and national scenic area) acreage should be recommended.

Protect all existing Old Growth forest. Of particular importance are the sizeable old growth tracts at Peters Mountain North and Frozen Knob areas identified by the Virginia Division of Natural Heritage. These areas should be designated as being unsuitable for logging and road building and protected as research natural areas or special areas (old growth protection).

Virginia national forests have provided a small percentage of total logging and so are not crucial. The logging also costs the public more than it brings in, so it makes no fiscal sense. This is particularly important at this time. Tourism brings in more income in a sustainable way than logging does, and **it makes no sense for the government to subsidize the logging industry**.

No Natural Gas Leasing or Hydrofracking. The full cycle of natural gas development and hydraulic fracking (or hydrofracking) brings roads, pipelines, and noise to national forest lands. There should be no hydrofracking or federal natural gas leasing in the forest. Strong protective measures should be applied to ensure that privately owned mineral developments do not destroy other values on the Forest.

Compared to Alternative G, **Alternatives C** does a far better job of protecting roadless areas, protecting special biological areas, protecting old growth, protecting water quality, and providing large backcountry area experiences that are very rare in the eastern US. The Forest Service should pick Alternative C, or a modified Alternative C, particularly one that is modified so that it is consistent with the Friends of Shenandoah Mountain proposal.

Sincerely yours,

Edgar M. Kyle, Ph.D.

Barbara L. Kyle

RIVANNA
CONSERVATION
SOCIETY

Letter# 268

August 18, 2011

Maureen Hyzer, Forest Supervisor
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

Dear Ms. Hyzer,

Please accept our comments on the draft Land and Resource Management Plan and draft Environmental Impact Statement for the George Washington National Forest (GW), which were issued in May 2011.

The Rivanna Conservation Society is pleased to see the increased attention on public drinking watersheds and water resources in the draft plan when compared to the current plan. More protective measures are needed because the draft plan is too general. We suggest that specific management objectives for watersheds that provide drinking water to cities and communities near the forest.

As a watershed organization we are pleased to see the identification of priority watersheds. However, the draft plan does not describe how or why the watersheds were selected. Less than a third of the acreage in public drinking watersheds are included in the priority watersheds. This seems to lessen the importance of protecting drinking watersheds.

Riparian areas in the priority and public drinking watersheds deserve special attention. Riparian zones in these areas should be wider than 100 feet along perennial streams and 50 feet along intermittent streams specified by the draft plan forest-wide (on level and gently sloping ground). These widths should be tripled to improve water quality and aquatic habitat and provide riparian habitat for many species (e.g., salamanders, turtles) that use these special areas.

On sloping lands, the draft plan requirements are less stringent than the Virginia Best Management Practices. State BMPs call for streamside management zones along Municipal Water Supplies (including both perennial and intermittent streams) to be 150 feet wide where the slope of the ground is 11-45%, and 200 feet wide where the slope exceeds 45%. At a minimum, the riparian area widths in priority and public drinking watersheds of the GW should meet these state BMPs.

Sedimentation is a big threat to water quality everywhere, including the GW. Yet, sedimentation is not directly measured or monitored under the draft plan. Measuring sedimentation in strategic locations and waterways will complement the macroinverebrate sampling in streams and should be part of forest management.

Finally, I strongly support the prohibition on horizontal drilling in the draft plan. This will reduce the risk of serious water quality degradation and other environmental concerns associated with hydraulic fracturing. Please keep this prohibition in place.

Sincerely,

Roberta Savage
Executive Director

P.O. Box 1501
Charlottesville, VA 22902-1501
434 97-RIVER
(434-977-4837)

Physical Address
108 5th Street SE
Suite 206
Charlottesville, VA 22902

Board Members
Tatyanna Patten, President
Angus Murdoch, Vice President
Tim Sanjule, Vice President
Dan Krasnegor, Treasurer
Gardy Bloemers
John (Jack) Brown
Morgan Butler
Leon Szeptycki
Deana Winslow

Executive Director
Roberta (Robbi) Savage

website: www.rivannariver.org
blog: http://rivannariver.wordpress.

PEAKSVIEW PROPERTY OWNERS' ASSOCIATION, INC.
WILLIAMSVILLE, VIRGINIA
19 AUGUST 2011

Ms. Maureen Hyzer
Forest Supervisor
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

Dear Ms. Hyzer,

On behalf of the Peaksview Property Owners' Association (PPOA) we appreciate the opportunity to submit comments on the draft environmental impact statement and the draft revised land and resource management plan – George Washington National Forest. I am providing the comments herein as President of the PPOA.

As way of background, the PPOA is a non-profit and non-stock corporation formed under the laws of the Commonwealth of Virginia. This incorporation is for purposes of maintenance of the privately owned roadway and the common property under the PPOA. The PPOA consists of 415.8 acres with 44 landowners. Within the property there are over three miles of road for access to each lot. Each lot has deeded access to the George Washington National Forest. Peaksview is in the vicinity of the Coursey Springs Hatchery (Rt 678 Williamsville). Additionally, seven lots have property boundaries adjoining with the national forest boundary, totaling about 5,914 feet.

Accordingly, with the proximity and use of the forest, the PPOA takes great pride and sense of responsibility in being stewards of the national forest through litter clean-up, watching for fire hazards and maintaining PPOA roads suitable for emergency vehicles as may be needed for the forest.

As President of the PPOA, the comments herein are directed by the PPOA Board of Directors via the undersigned. The PPOA comments noted below are framed around a principal theme that the forest must be protected and managed for future generations to enjoy. Camping, hunting, fishing, nature observation, wildlife habitat and hiking are just a few of the activities the PPOA wishes to see maintained in any future land management plan.

Our comments are as follows:

(1) Chapter 1, Page 1.1 – As a general comment the requirements set forth in 36 CFR 219.1(a) where forest plans "shall provide for multiple use and sustained yield of goods and services ---- in a way, that maximizes ---- public benefit in an environmentally sound manner" reflects a great mission statement for the forest plans. The details in meeting this aforementioned requirement will be the future challenge and a likely source of contention from all who wish to see the National Forests thrive and survive for generations to come.

(2) Chapter 1, Page 1-3 – Consistent with the above comment alternative "G", for managing the land and resources of the George Washington National forest appears to present the best overall approach to meeting the challenges of managing the national forest. The decision to ensuring changes to the management of the forest plan will have public notification and involvement opportunities is a critical pillar in having a balanced forest plan for people and the environment.

(3) Chapter 2, Page 2-18 Old Growth – Timber - Protecting wilderness areas – it is said that the nation is losing many of the old growth forests due to timber harvesting. While there are pro's and con's on both sides of the issue, the reality is once the trees are harvested we will not see the area return to its former growth in one's lifetime. It seems contrary to good policy to designate wilderness areas of a national forest and then harvest resources that reside in the designated area. The PPOA does not have a solution other than to note – once the tree is gone there is not going to be a recovery for many centuries. We believe that any timber harvesting in wilderness areas must be part of a plan that improves the growth and sustainability of these magnificent portions of the forest. While it is recognized that in the old growth wilderness areas there are large diameter – high value hardwoods that are desired by many users, the mere fact that these trees are "limited" should trigger caution in harvesting as once they are gone, our future generations may never see these wilderness areas.

(4) Chapter 2, Page 2-21 – Desire Conditions for Fire & Chapter 3 Fire Page 3-16 – Controlled burning – The PPOA recognizes the importance of controlled burning, however many of the Peaksview owners are concerned about the state or local ability to control fire to avoid massive forest fires. The PPOA believes any controlled burnings must have the necessary resources identified to deploy immediately in the event burn conditions change. Several years ago the Deerfield Fire department demonstrated the challenges one faces from forest fires. Although this was not a controlled burn, the ability to muster necessary resources to suppress and contain the fire appeared to be a challenge. The desired conditions stating that "fire is used in a controlled, well planned manner ---" is a critical management strategy that will need resources (people, equipment, etc) identified and available to meet this objective.

(5) Chapter 2, page 2-24 – Non-motorized (motorized) dispersed recreation trails. The "desired conditions" for non-motorized trails reflects a balance between the user and the environment. We agree on this approach. We also believe that ATV/motorized trails will be hard to enforce regarding detrimental use that contributes to environmental damage and detriment to forest life (trees, plants, wildlife). Motorized ATV trails should be limited to that which exists today. ATV Access – the PPOA believes the use of ATV's in the national forest is contrary to maintaining the ecosystem. The beauty of the forest is being able to hike, hunt or observe nature without a vehicle encroaching and reducing the serenity of the area. The tracks that repeated ATV use is cutting into the forest floor are also damaging the ground coverage, potentially causing erosion of valuable top soil. ATV access should not be expanded beyond existing plans.

(6) Chapter 2 page 2-31 – Timber Management – Timber Harvesting - The PPOA is concerned that any timber harvesting be more controlled to avoid collateral damage. Clear cut harvesting in smaller areas of the forest impacts the forest as areas are denuded and it takes decades to initiate substantial growth. Selective cutting has significant impact in collateral damage. In falling a tree, several other trees are damaged and usually succumb to disease due to bark and root damage. All of this affects the habitat and forest regeneration. Timber harvesting guidelines should be more restrictive on allowable collateral damage. We observed after the development of Peaksview that harvesting of select trees collectively damaged three trees for every one tree harvested. Most of the damaged trees had severe bark damage and died despite efforts to coat the damaged areas. The PPOA also understands and acknowledges the benefits from well –managed and controlled timber harvesting.

(7) Chapter 3, Wind Energy Development Page 3-28 – Suitable use/wind energy – The PPOA understands the nation's need to reduce relying on external energy sources. Wind energy is an alternative; however it does not appear that there is effective and comprehensive criteria for siting wind energy equipment. The height of the towers, the potential for species damage and the impact on esthetics/views appears, among others, to need more detailed analysis and measurable criteria. Recognizing this nation's concern for biological and ecological impacts of planned developments and the need to ensure a balanced approach, it appears that wind energy development has eluded

comprehensive regulatory review at all levels of state government. Thus local government seems to be working to adjudicate proposed wind energy development with little or no effective or measurable criteria to render a decision to approve or deny the proposed action. Once a wind tower is operating, the ability to mitigate any detrimental consequences is lost. The national forests are but a few acres as compared to private land. In a manner of speaking, the national forest is the "common mans" private land. The national forests are experiencing loss of flora and fauna, species of trees dying and minimal re-growth, insects invading plant growth and reduced wildlife quality. To clear cut areas to support massive wind energy units seems clearly at odds with a balanced vision for forest use. Wind turbines provide no benefit that we can assess to help the national forest recover and to sustain. Wind energy units should be constructed on private land with due diligence for a detailed environmental impact assessment.

(8) Chapter 4 Designated Wilderness Page 4-27. The wilderness areas are a national treasure. The desired conditions noted by the wilderness act of 1964 is an eloquent mission statement that should be employed when any action is being considered that may directly or indirectly impact a wilderness area.

(9) Chapter 4 ATV use Areas Page 4-77. Please see comment Number 5 – ATV use should be limited to existing trails today.

In Summary, the PPOA commends the forest service in addressing the enormous task of revising the forest plan. As noted, we believe the vision, strategy and design criteria built on the pillar of alternative "G" provides an effective framework for meeting the revision challenges. Again, we appreciate the opportunity to comment.

Sincerely,

JAMES K. STRICKLAND
President, PPOA
By direction of the PPOA Board of Directors

Copy to:
PPOA Board of Directors
Darrell Hayes – Vice President
Brian Zartman - Secretary
Tim Seitz – Treasurer

James K. Strickland
President PPOA & Chairman PPOA Board of Directors
217 S. Broad Street
Suffolk, VA 23434

Tel – 757-539-9136
Email - brian.zartman@yahoo.com

Letter# 270

County of Rockbridg

County Administrator

150 South Main Street

Lexington, Virginia 24450

ROBERT CLAYTOR
County Administrator
Office: (540) 463-4361
Fax (540) 463-4346

COUNTY ENGINEER
(540) 464 1152

DATA PROCESSING
(540) 464 1241

FISCAL SERVICES
(540) 463 4361

GEOGRAPHIC INFORMATION SYSTEMS
(540) 464 9656

PLANNING & ZONING
(540) 464 9662

RECYCLING COORDINATOR
(540) 463 2437

August 23, 2011

Ken Landgraf
George Washington National Forest
5162 Valleypointe Parkway
Roanoke, VA 24019

RE. Horizontal Hydraulic Fracturing

Dear Ken:

Thank you for taking the time to speak to the Board of Supervisors about the draft Forest Management Plan last night. I have enclosed a resolution passed by the Board that addresses the issue of horizontal hydraulic fracturing. Though the Board supports the goal of energy independence for our Country, this current technique used to extract natural gas from the Marcellus Shale formation appears questionable and could be very detrimental to our natural resources. All that we ask is for the U. S. Forest Service to use great caution when considering leasing our public lands for such mining operations.

Thank you for your attention to this matter.

Sincerely,

Sam Crickenberger
Director of Community Development

enclosure

cc: Robert Claytor, County Administrator

Resolution Regarding Horizontal Hydraulic Fracturing in the George Washington National Forest

Supervisor Riegel made a motion to adopt the Resolution with a second provided by Supervisor Comstock and approval by the following vote:

AYES: Riegel, Comstock, Lewis, Ford
NAYES: None
ABSENT: Smith

R E S O L U T I O N

A Resolution Requesting the U. S. Forest Service to Protect Drinking Water and Other National Resources by Prohibiting Horizontal Hydraulic Fracturing Natural Gas Wells in the George Washington National Forest

WHEREAS, the U. S. Forest Service is preparing a draft forest plan and environmental impact statement for release in January 2012 that will govern management of resources within the George Washington National Forest for the next fifteen years, and

WHEREAS, the Rockbridge County Comprehensive Plan has identified the need to manage natural resource sites for sustainable use, to ensure that large areas of the County are maintained as open space for agricultural and forestall production, recreation, water supply and quality of life; and

WHEREAS, horizontal hydraulic fracturing requires from two to ten million gallons of water per well, combined with sand and numerous chemicals, to break up shale and access natural gas, a drilling and mining process that has been linked to ground water and surface water contamination, air pollution and soil contamination, and

WHEREAS, horizontal hydraulic fracturing gas mining has been linked to other significant adverse environmental impacts, including massive water withdrawals, gas migration from new and abandoned wells, the inability of public treatment plants to adequately treat millions of gallons of gas mining waste water, underground injection of brine waste water, improper erosion and sediment control, improper cementing and casing of wells, over pressurized wells, significant increases in industrial truck traffic with subsequent increase in accidents on rural roads, and other accidents and spills, and

WHEREAS, Congress' 2005 Energy Policy Act exempts the hydraulic fracturing drilling process from long held environmental regulations such as the Clean Air and Water Acts; the Safe Drinking Water Act, the Superfund law and other environmental regulations, and

WHEREAS, the exact chemicals used in the horizontal hydraulic fracturing process are currently considered "proprietary" and, therefore, are not disclosed to federal, state or local health officials or the public, and

WHEREAS, the U. S. Environmental Protection Agency is in the midst of a two year study of the effects of horizontal hydraulic fracturing gas mining on water quality and other resources, to inform the development of regulations and recommendations to reduce environmental impacts,

NOW, THEREFORE, BE IT RESOLVED, that the County of Rockbridge respectfully requests that the U. S. Forest Service, in the revised management plan for the George Washington National Forest, act aggressively to protect drinking water and other natural resources by prohibiting horizontal hydraulic fracturing natural gas wells in the George Washington National Forest.

Letter# 272

Botetourt County, Virginia
Board of Supervisors

1 West Main Street, No. 1
Fincastle, Virginia 24090
Phone (540) 473-8223
Fax (540) 473-8225

Board of Supervisors

Billy W. Martin, Sr.
Chairman

Don A. Assaid
Vice Chairman

Terry L. Austin

Larry B. Ceola

Stephen P. Clinton

September 2, 2011

Ms. Maureen Hyzer, Forest Supervisor
United States National Forest Service
5162 Valleypointe Parkway
Roanoke, VA 24019-3050

Dear Ms. Hyzer:

There are 82,400 acres of Forest Service land in Botetourt County, including 13,400 acres which are in the James River District of the George Washington National Forest. The County is in the process of conducting a staff review of the August 8, 2011, revised George Washington National Forest Resource Land and Resource Management Plan.

The County is aware of the potential for commercialization and development of energy sources on federal land and recognizes the fact that a majority of the land encompassed by the James River District is underlain by Marcellus shale formations which may contain natural gas deposits. Further, the County has reviewed research involving the process of hydraulic fracturing, which is utilized to release and subsequently capture natural gas. The process appears to be linked to numerous cases of surface and drinking water contamination as well as to air pollution and soil contamination.

Botetourt County harbors significant concerns with the potential for significant adverse environmental impact, specifically with regard to protection of critical groundwater aquifers and byproducts of the hydrologic fracturing process. As such, the County supports the Forest's revised position, which removes consideration for horizontal drilling, effecting a moratorium on hydrologic fracturing. The County supports such a position until the process can be verifiably proven to pose no significant risk to the environment.

Thank you for the opportunity to offer comment. If you require additional detail or have questions, please do not hesitate to contact me.

Sincerely,

Gerald A. Burgess
ICMA Credentialed Manager
County Administrator

cc: Spencer Suter, Assistant County Administrator

Letter# 273

September 5, 2011

George Washington Plan Revision
George Washington and Jefferson National Forests
5612 Valleypointe Parkway
Roanoke, VA 24019

USFS, GWJNF

My name is David Duncan. I am a United States Citizen, resident of Prince William County Virginia, and land owner in Nelson County Virginia. I appreciate the efforts, services, diligence, and professionalism of the USFS-GWNF staff. I am in general concurrence with the Agency Preferred Alternative (Alternative G) recommended in the GWNF Draft EIS and Plan, with a few exceptions and areas of emphasis, as outlined herein:

1. Wilderness: In addition to the Wilderness recommendations presented in the Plan, I would recommend Wilderness consideration for Lynn Hollow, Skidmore Hollow, Beech Lick Knob and Little Allegheny Mountain; as well as all possible additions to the St. Mary's, Priest, and Three Ridges Wilderness Areas.
2. Inventoried Roadless Areas: I concur with management of all Inventoried Roadless Areas to "closely mirror the management restrictions on road construction and timber harvest that were described in the 2001 Roadless Area Conservation Rule".
3. Road Closure: I concur with the reduction of road network mileage and utilization of closed roads to supplement the trail system for non-motorized use.
4. Energy Development: Utilization of GWNF lands for energy development should be limited so as to not increase risk to natural and cultural resources as posed by the energy development. In particular, development of natural gas resources via hydrofracking could impact water resources, and land development activity associated with these extractive industries could fragment habitat and recreational solitude. Wind energy development is also of concern due to potential impact to avian resources, impact associated with industrial development, and viewshed impact to forest visitors and local land owners with a possible impact to nearby property values.
5. Land Acquisition: If allowable by law, and if funding allows, and only with consent of land owner; I recommend active acquisition of lands that are within the designated purchase area and border existing USFS lands; especially inholdings that fragment habitat and require maintenance of federal roads that could otherwise be closed thus saving taxpayer funds.

Thank you for your consideration.

Dave Duncan
Haymarket, VA and Nelson County, VA

Letter# 274

September 7, 2011

George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway, Roanoke, VA 24019

Dear Planning Team:

While I support the use of sustainable energy sources, I don't think industrial wind development should take place in the George Washington National Forest. Development of offshore wind is more appropriate and productive. I also oppose gas development by hydro-fracking as this would endanger our water and fragment the forest.

I support the Friends of Shenandoah Mountain Proposal and would like to see the proposal recommended in its entirety in the Forest Plan. I appreciate the addition to Ramseys Draft and the recommendation of Little River for Wilderness in the draft, but ask that you also recommend Skidmore Fork and Laurel Fork for Wilderness and Shenandoah Mountain and Kelley Mountain-Big Levels for National Scenic Area designation in your final plan. The Shenandoah Mountain Proposal is attractive because, if enacted by Congress, it would offer permanent protection of Shenandoah Mountain, Laurel Fork, and Kelley Mountain-Big Levels.

Please recommend Beech Lick Knob for Wilderness and Wilderness additions for Rich Hole, Rough Mountain, Three Ridges, and St. Mary's.

I think that Big Schloss should be designated a National Scenic Area; Three High Heads, wilderness; Northern Massanutten, National Scenic Area; and Little Allegheny Mountain, Wilderness.

Thank you for the opportunity to comment on the draft plan.

Sincerely,

Susan E. Gier

Susan E. Gier
PO Box 34
Singers Glen, VA 22850
suegier@shentel.net

Letter# 275

HEADWATERS SWCD SOIL & WATER CONSERVATION DISTRICT
We work with the people who work the land.

Headwaters Soil and Water Conservation District
P.O. Box 70
Verona, VA 24482
(540) 248-6218 Extension 3
www.headwatersswcd.org

September 20, 2011

Maureen Hyzer, Forest Supervisor
George Washington & Jefferson National Forest
5162 Valleypointe Parkway
Roanoke, VA 24019

Dear Supervisor Hyzer:

It seems appropriate at this time that we are reviewing the future management of the George Washington National Forest in the revised land and resource management plan. It is 100 years since wise men of vision saw the deplorable conditions of the Appalachian watersheds and established the Weeks Law (the law that has now provided us the George Washington National Forest with all of its valuable resources from which we today benefit and now plan for its future).

Here are our comments on the draft plan:

1. The restoration of watersheds to improve the quality of water from our headwater streams has always been the highest priority for the national forests under the Weeks Law. We believe the preferred alternative (G) does an excellent job of using scientific methods to protect water quality and riparian resources in these headwater streams. The plan, we believe, adequately provides effective Best Management Practices to both prevent erosion and restore watersheds that do not meet the standards. We especially commend you for selecting those watersheds as priority that store public drinking water such as North River. These watersheds will be recognized for their value by emphasis toward restoration and effective management activities.

2. The plan does not recognize the flood control dams (PL566) located on the national forest that are the responsibility of the Headwaters Soil and Water Conservation District and under permit to the forest for their operation and maintenance. The impoundments provide:
    - Reduced flood damage to downstream structures, forest and farmland.
    - Recreation for swimming, fishing and camping.
    - Domestic drinking water such as Elkhorn Lake.

We will continue to cooperate with the national forest in the operation of these impoundments including:

- Conducting annual inspections for safety and maintenance.

- Seeking funding to meet required changes for certification, including the federal certification program.
- Evaluate the effectiveness of dams as they age.

3. Oil & Gas Leasing - We realize the national importance of reducing our dependence on foreign oil and that the national forest can provide some types of fuel products including biofuels. We believe the plan is correct not to allow horizontal drilling in the Marcellus Shale Formation that could jeopardize the water sources in our fragile karst formations. Much more experience toward safely reducing the risk of contamination must be demonstrated before this method should be permitted.

We know that the George Washington National Forest has provided many valuable resources to both the local population and the nation. Providing management for these resources in a reasonable mix is complicated. We commend you for your work and understand the importance of this plan for the future. Headwaters SWCD will continue to cooperate with the forest and welcome ways that we can support our mutual goals as we have in the past.

Sincerely,

Charles E. Horn

Charles E. Horn, Chairman

To the management of the George Washington National Forest:

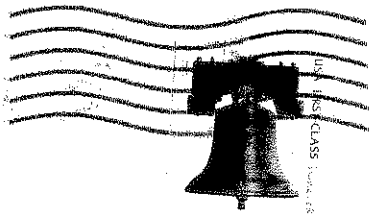
No hydrofracting should be allowed anywhere in the Berryton, VA flood plain. The GWNF would not permit access in the Berryton Va area to install a cell phone tower but the GWNF is permitting gas drilling equipment to build road-ways to gas drill sites. If so, building road ways will interrupt erosion and wild life habitat.

William L Peery

Thank you for your time

RICHMOND VA 232
SEP 11 23:51 4L

Mr. William Beep
16791 Bergton Rd
Bergton, VA 22811-2422



George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

RECEIVED SEP 0 6 2011

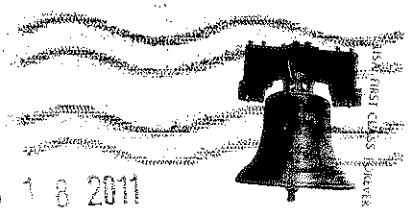
To the management of the George Washington National Forest:

Please do not allow hydrofracking in the George Washington or the Jefferson National Forests.

Ed Stone

Thank you for your time

615 Fraser Lane
Staunton, VA
24401-2336



RECEIVED AUG 16 2011

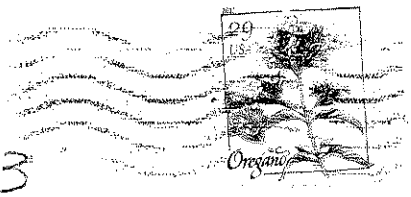
George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

To the ~~management~~ of the George Washington National Forest:

Just born, want the forest as a forest for when I grow up

Thank you for your time

Zoie Silvious
176 Maple Ave Apt 2
Timberville, VA 22853



George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

RECEIVED AUG 2 9 2011

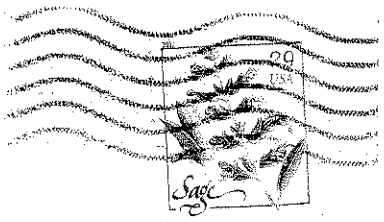
53

To the management of the George Washington National Forest:

we don't want drilling in the forest / verticle or horizontal.

Thank you for your time

Kayla Flaven ND VA 232
176 Maple Ave Apt 2L
Timberville, VA 22853



George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

RECEIVED AUG 2 9 2011

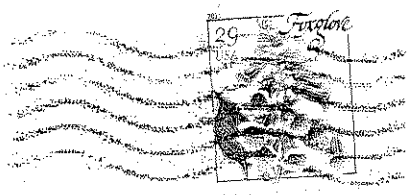
To the management of the George Washington National Forest:

David Goditt

we dont want drilling in the forest verticle or horizontal

Thank you for your time

David Gedlitz
171 maple avenue
Timberville VA 22853



George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

RECEIVED AUG 29 2011

the management of the George Washington National Forest:

- I support PLAN C because it preserves more of the headwaters in wilderness protecting the overall watershed supply.
- I support a ban on horizontal drilling as there is too much danger involved from water depletion, water contamination, breaking up of habitat magnified by human error.

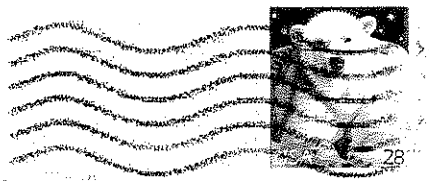
THANK YOU FOR YOUR CONSIDERATION,

William N. Reed

WILLIAM N. REED

Thank you for your time

W. REED
RICHMOND VA 232
125 VALLEY RD.
30 AUG 2011 PM 6 T
WAYNESBORO, VA 22980



George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

RECEIVED SEP 6 1 2011

To the management of the George Washington National Forest:

I support Plan C for the management of G. Washington Nat Forest, in order to preserve more areas of wilderness and to protect the watersheds

I support a ban on horizontal drilling for natural gas (hydrofracking) in GWNF My concerns: (1) excessive water withdrawal depletes streams (2) Serious disposal problems with toxic water produced by hydrofracking (3) Even with so-called safe technology, human error could cause an accident that is irremediable

Thank you for your time

Karen A. Reed

Karen Reed
125 Valley Rd
Waynesboro VA 22980

George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

RECEIVED SEP 0 1 2011

To the management of the George Washington National Forest:

No hydrofracking should be allowed anywhere near the flood plain. Bergton is in the flood plain - no hydrofracking in the Bergton area, either

Marge Peevy

Thank you for your time

RICHMOND VA 232
06 SEP 11 23:51 4L
Ms. Loretta Peevy
16791 Bergton Rd
Bergton, VA 22811-2422

George Washington Plan Revision
George Washington & Jefferson National Forests
5162 Valleypointe Parkway
Roanoke, VA 24019

RECEIVED SEP 0 8 2011

for these 7 sheets of notes —
I believe it's alright for me to give this stuff to people, if it's understood that I'm doing it on my own — God doesn't require it of me.
This stuff is <u>not</u> <u>necessary</u> — God can help them whether I give this stuff to them or not; and they should be told that besides.

Good religion is this —
We can have blessings and needs and fruits and saviors and all things to do.

If religious hard things can't be avoided you can also practice this — Deny yourself and take up your cross and allow tribulation to bring you closer to God.

If you can't do God's will on anything else, ask God to have you do God's will on religious things you do, and everything else will fall into place.

Don't forget you can do God's work on Sundays too, (John 5:17) if it's easy enough for you.

Include enough prayer — we're <u>entitled</u> to get out with easy things through prayer. Remember God's people too. Remember God.

(worship in spirit and in truth)

When you do this stuff be careful that you not rob God, as Satan did by worshipping himself and what he had power to do. Be as Christ, who said — "thine is the kingdom, and the power, and the glory, for ever," (Matt. 6:13) The tree of life only comes from God, and God gives it to everybody in Heaven.

"Twas grace that taught my heart to fear, and grace my fears relieved" (Hymn). And the Bible is the best guide.

(2) again — after Christ was fasting in the wilderness He answered the devil's solution with these words — Matt. 4:4 — "It is written, Man shall not live by bread alone, but by every word that proceedeth out of the mouth of God."

Matt. 5:6 — "Blessed are they which do hunger and thirst after righteousness: for they shall be filled."

Especially important are all of Matt. 5:3-12 for what makes up heaven or the spiritual life.

(But Phil. 3:17-20 says there are "enemies ... whose God is their belly," also seen at I Cor. 6:12+13, & Rom. 16:17+18.

Widespread, common & sometimes seen as small faults are discussed in II Tim. entire 3rd chapter.

We're headed for a nice future where we'll all be perfect.)

For the previous last 3 sections I suggest people copying their own Bibles, and the following. If you don't have a KJV, my own notes will do. (get from God).

For more on food see Rom. 14:17+21, and Heb. 13:9. Other stuff is found at II Cor. 8:15 and I John 3:10, plus I Cor. 12:4, 6, 8-10, I would (copy a few verses within — Matt. 6:31-33; Luke 14:15-24 and Matt. 22:2-14.)

(I meant a 1611 King James Authorized Translation of the entire Bible — which I too highly recommend.)

God to give them a copy after the future starts (I asked for)

nature lovers for and from back of pg. 2 —

(1.) 1 Cor. 10:31 — "Whether therefore ye eat, or drink, or whatsoever ye do, do all to the glory of God."

(2.) John 4:32 + 34 — ..."I have meat that ye know not of." ..."My meat is to do the will of him that sent me, and to finish his work."

1 Cor. 10:3 — "And all did eat the same spiritual meat;"

John 6:55 — ..."my flesh is meat indeed, and my blood is drink indeed."

John 21:16 — ..."Feed my sheep."

Heb. 5:12-14 — ..."such as have need of milk, and not of strong meat. For every one that useth milk is unskillful in the word of righteousness... But strong meat belongeth to them that are of full age,"

1 Pet. 2:2 — "As newborn babes, desire the sincere milk of the word, that ye may grow thereby;"

(3.) Matt. 6:26 — "Behold, the fowls of the air: for they sow not, neither do they reap, nor gather into barns; yet your heavenly Father feedeth them. Are ye not much better than they?"

1 Tim. 4:4 — "For every creature of God is good (meats), and nothing to be refused, if it be received with thanksgiving"

James 1:17 — "Every good gift and every perfect gift is from above,"

(4.) Phil. 4:19 — ..."my God shall supply all your need according to his riches in glory."...

1 Tim. 6:17 — ..."God, who giveth us richly all things to enjoy;"

(See back side)

[illegible] (an [illegible] to figure out things) From Janet

Eternity Interests

Page 1

for virtuous people + angels (to gain more blessings) (the holy spirits) & (one is enough all 12 is the Spirit)

no. of people in one for ideal	approx. months used	fruits of the Spirit	corresponding astrological houses	one group of people ideal for each other for eternity	countries
one	April	Faith	personality	Jim Stafford	Sweden
two	May	Love	money + finances	James Brolin	Canada
* three	June	Hope	mentality + communication	Janet Rothgeb	U.S.A.
four	July	Strength	home + family	Errol Flynn	Austria
five	August	Zeal	romantic + dramatic children + no. of children	Donny Osmond	Arab countries
six	September	Goodness	health + work	Chuck Conners	Tibet
seven	October	Peace	marriage + partnership	Anthony Quinn	India
eight	November	Thanksgiving	birth + death	Tom Tryon	Australia
nine	December	Wisdom	politics + religion philosophy + education	Fred Astaire	Thiland
ten	January	Joy	prominence	Robert Conrad	Cambodia
eleven	February	Beauty	friends	Roger Moore	Vietnam
twelve	March	Experience	trouble + secret enemies + imprisonment	Warren Beatty	China

P.S. Those people's months are not necessarily the ones they were born in.

* Most people I know are no. threes (+ that includes Mother, Daddy, Charles, Kathy + 3 kids).

(see back side) (see back side) (see back side)

Eternity Correction Interests

(for hurt people & hellions to avoid (if they want to improve)

& (one is too much all 12 is hellishness)

no. of people in one for ideal	approx. months used	(the wicked spirits) sins of the carnal	(corresponding astrological houses (rewritten)	one group of people's hurtfulness to avoid	countries
one	April	Dread	one's front	Jim Stafford	Sweden
two	May	Hatred	weapons & organized storage	James Brolin	Canada
*three	June	Despair	emotionalism & repulsiveness	Janet Rothgeb	U.S.A.
four	July	Deprivation	underworld & rowdy gangs	Errol Flynn	Austria
five	August	Viciousness	scornful & daring pets & no. of pets	Donny Osmond	Arab countries
six	September	Evil	sickness and demolition	Chuck Conners	Tibet
seven	October	Warfare	slavery & servitude	Anthony Quinn	India
eight	November	Vengeance	death & birth	Tom Tryon	Australia
nine	December	Foolishness	dictatorship & witchcraft & criminality & ignorance	Fred Astaire	Thiland
ten	January	Torment	notoriety	Robert Conrad	Cambodia
eleven	February	Ugliness	enemies	Roger Moore	Vietnam
twelve	March	Wretchedness	devastation, antisocialites appear, & escapism pastimes	Warren Beatty	China

P.S. Those people's months are not necessarily the ones they were born in.

* Most people I know are not threes (& that includes Mother, Daddy, Charles, Kathy, & 3 kids).

(See back side) (See back side) (See back side)

Page 6

	* Fruits of the Spirit	commandment number (on back of page 1)	Sins of the Carnal
	1. Faith	5.	1. Dread
S	2. Love	(11.)	2. Hatred
	3. Hope	3.	3. Despair
	4. Strength	8.	4. Deprivation
S	5. Zeal	(12.)	5. Viciousness
	6. Goodness	9.	6. Evil
	7. Peace	6.	7. Warfare
F	8. Thanksgiving	7.	8. Vengeance
	9. Wisdom	1.	9. Foolishness
	10. Joy	4.	10. Torment
W	11. Beauty	2.	11. Ugliness
	12. Experience	10.	12. Wretchedness

4 things best for us to need for help: Religion (6) (especially from summer), Church (12) (especially from winter), God (3) (especially from spring), and Grace (9) (especially from fall).

Senses

feeling	4. Strength	+	12. Experience
sight	7. Peace	+	5. Zeal
hearing	9. Wisdom	+	11. Beauty
smell	6. Goodness	+	3. Hope
taste	10. Joy	+	1. Faith
the 6th sense	2. Love	+	8. Thanksgiving

: Biblical according to fruits of the Spirit, it gave at Gal. 5:22+23.
: S. Sins of the carnal are more of an estimate than a quote.

(turn page over)

How to eat religiously in church
if maybe you've forgotten how,
after maybe a long time of some-
times taking it for granted —

Eat and drink to the glory of God.
1 Cor. 10:31

God gives spiritual food.
John 4:32+34 — 1 Cor. 10:3 — John 6:55 —
John 21:16 — Heb. 5:12-14 — 1 Pet. 2:2

Good food comes from God.
Matt. 6:26 — 1 Tim. 4:4 — Jam. 1:17

We can have natural blessings and spiritual blessings.
Phil. 4:19 — 1 Tim. 6:17

Whatever the advisableness of picking any man, it should be provable that when compared to God, God is overwhelmingly the best and most to be preferred for an eternity of any kind; and has been with us all through the past to prove it. after an exceedingly hard time of it, "enter thou into the joy of the lord," Matt 25:21. "Servants, be obedient to them that are your masters.... in singleness of heart... With good will... as to the Lord.... And, ye masters, do the same things unto them... Knowing that your Master also is in heaven"... Eph. 6:5,7,+9. "Now, the God of hope fill you with all joy and peace in believing..." Rom. 15:13.

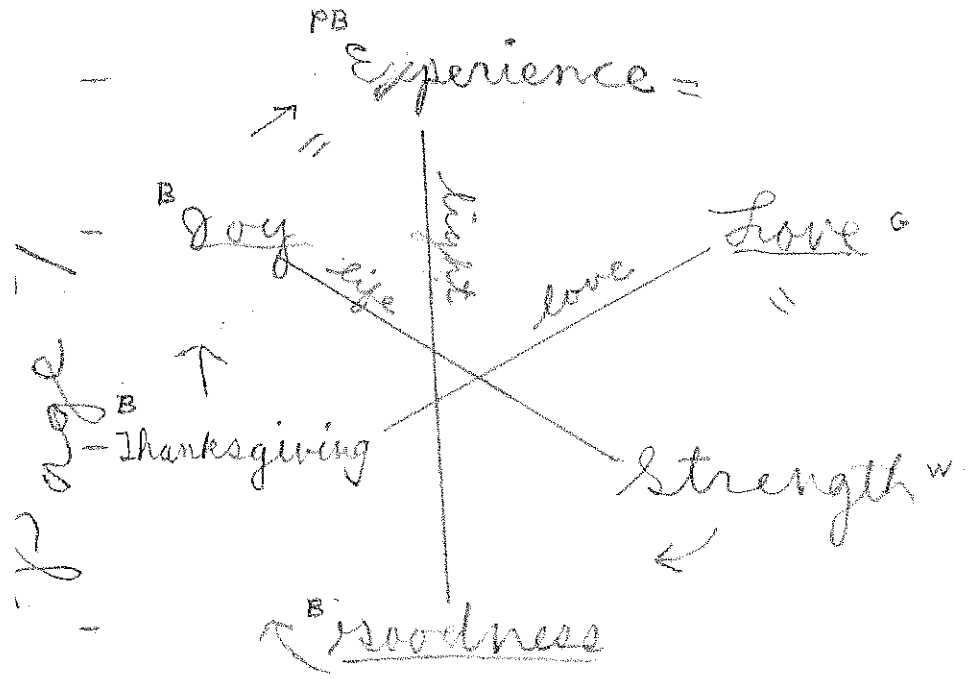
Heaven is already here, for those who can tune in to it. The Bible has something to say about it, even though it was written long ago: "the kingdom of God is within you," Luke 17:21. No one is so helpless as when without a friend, including one's own self for a friend. Admit it, and seek peace. On God. (Sometimes the hard times are not over yet.) Church is one of the best friends for peace. God's work is easy for the spirit. It sometimes takes God's true church, which can be tuned in to with the 6th sense. Ask God to help you do it the best way.

(Incidently God's true church is the Primitive Baptists. People don't have to do anything to be saved, whatever our condition is in this life.)

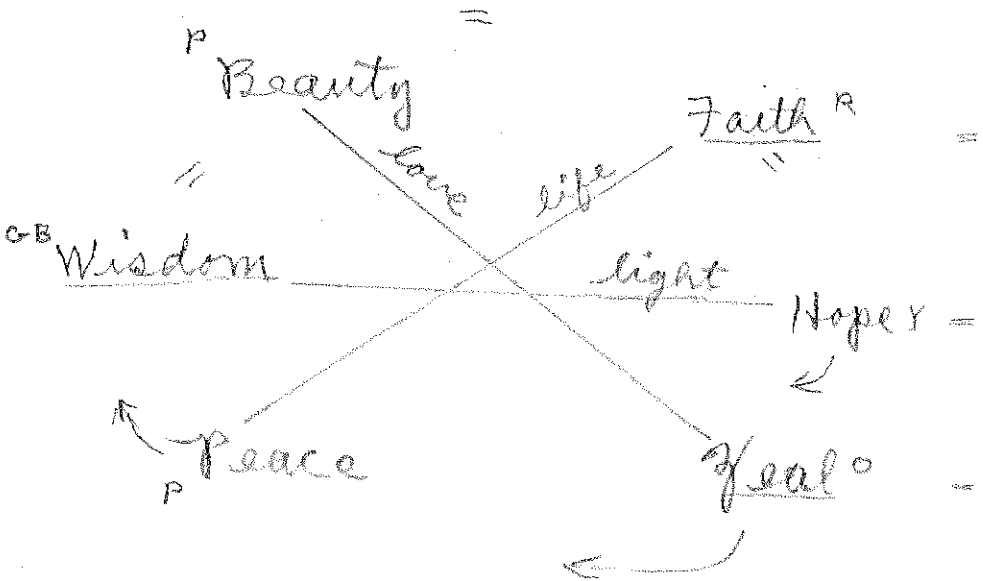
But we'll have plenty of evidence. All it takes is God. God saves everybody these days. We don't have to feel like we're saved though.

Many are called but few are chosen means — there might be a lot of people in heaven, but not heaven on earth.

All are the Same



Female
(earth or water)



Male
(fire or air)

& Colors

G = Green, W = White, B = Blue, B = Black, B = Brown, PB = Purplish Blue
R = Red, Y = Yellow, O = Orange, P = Pink, GB = Grayish Blue, P = Purple
(in the right order)

The Ten Commandments

the Commandment	Disobedience	What a person needs Better to Obey	Color
1. Have no other gods before God.	9. Foolishness	9. Wisdom	Grayish Blue GB
2. Don't make a graven image,	11. Ugliness	11. Beauty	Purple P
3. Don't take God's name in vain.	3. Despair	3. Hope	Yellow Y
4. Keep the Sabbath day holy.	10. Torment	10. Joy	Brown B
5. Honor your father and mother.	1. Dread	1. Faith	Red R
6. Don't kill.	7. Warfare	7. Peace	Pink P
7. Don't commit adultery.	8. Vengeance	8. Thanksgiving	Black B
8. Don't steal.	4. Deprivation	4. Strength	White W
9. Don't bear false witness.	6. Evil	6. Goodness	Blue B
10. Don't covet.	12. Wretchedness	12. Experience	Purplish Blue PB

The 2 Great Commandments

11. Love God with all your heart, soul, mind, and strength.	2. Hatred	2. Love	Green G
12. Love your neighbor as yourself.	5. Viciousness	5. Zeal	Orange O

Appearance of God

all knowledge in the universe & past present, & future	Wisdom	9. politics & religion philosophy & education	fire grayish blue
everywhere present & nowhere absent over all the same area	Peace	7. marriage & partnership	air pink
has all power over all the same area	Strength	4. home & family	water white
the highest good in the Universe	Goodness	6. health & work	earth blue
the highest feelings in the universe	Joy	10. prominence	earth brown
the highest teamwork in the universe (the Godhead)	Love	2. money & finances	earth green

(turn page over)

Creatures' Appearance

4th level
the deepest level of the mind that has all knowledge like God + has never been hurt

Experience — 12. trouble + secret enemies + imprisonment — water purplish blue

3rd level
knows a lot of the future + past + has extensive knowledge

Zeal — 5. romantic + dramatic + children + no. of children — fire orange

2nd level of the mind – has more complicated + extensive thinking than the conscious level

Beauty — 11. friends — air purple

1st level – the top or conscious level of the mind; the part of the mind that's in sight

Hope — 3. mentality + communication — air yellow

---

mind (part that goes through all the other parts)
+
soul — a body that can separate into almost unlimited other bodies

Faith — 1. personality — fire red

spirit — one body that can leave the physical body
+
physical — the fleshly outter and visible body

Thanksgiving — 8. birth + death — water black

Added This Stuff
After I Was Finished

Church Attendance?

When it comes to the question of what to advise us all to pick these days, that's a hard question, because in all our immense pasts — we have all been equal to Christ at some time, and we have all been equal to the devil. And God was what made it all possible, but they wouldn't these days know maybe how to get God's help that much again, and others of them would have doubts about even trying to do anything with God. But the experiences will all be better when the universe finally gets to its' heaven which God provided for us all, and it's varied many experiences.

Living an opposite of all the blessings used to be a necessity. And we couldn't rise above it with church.

God <u>makes</u> <u>most</u> people go to any available church in certain areas of existence though. And the need for this shouldn't be ignored. But I don't share the mutual support of all things in traditional religion churches, although there's no ill will, nor the need to agree on everything, since I even believe in reincarnation.

It isn't secure though to need just heaven in the future (to be prepared for just heaven in the future).

This Doesn't Mean to Contradict
the Back of Page 6 (lower left side):

Thought for any Day —
It's just a lot of excess baggage
if God isn't the only thing in your life.
(Mon., Jul. 2, 2007) —
after my self-indulgence almost got us hit by another car

continued —
and friends can help a lot, too.
(Tue., Jul. 3, 2007) —
after I feared Voice for it

The Bible says give fear to whom fear is due. And Voice is a son of God too. God comes first. (Rom. 13:7, Matt. 5:23 + 24) "Render therefore to all their dues: tribute to whom tribute is due; custom to whom custom; fear to whom fear; honour to whom honour." "Therefore if thou bring thy gift to the altar, and there remembrest that thy brother hath aught against thee; leave there thy gift before the altar, and go thy way; first be reconciled to thy brother, and then come and offer thy gift."

We can follow someone just as far as they follow God. The Bible has enough to say about that too. But sometimes we need someone just to correct us. We all have faults, and can try to be better. And if we know a good way, we shouldn't give it up. And be considerate of others.

continued — (Wed., Jul. 4, 2007) —
Voice has power to give me or help me with my religion + therefore the 2 sentences on both days were from my friend Voice too, so we're OK and have the solution. That's for the friends part.

The other solution — We shouldn't worship the spiritualike things and make an idol of them (like also for the 2nd commandment), because we should worship the giver, not the gift. And God really is the only one + the once to have for an uncluttered life, (Jul. 5) + of course safety, etc. (Jul. 6) I like the spirituality I get this way.
(I changed a word or two later.)

Nature Lovers Page 4 (continued attempts)

Parallels

for the virtuous people and angels to gain more blessings)

the holy spirits & fruits of the Spirit

top one

also on the side

Heaven & Hell

outer space heaven

Dem. undecided mid.

Repub. top

God & Humans

4. Strength (water white)
home & family

& trine config.

12. Experience (water purplish blue)
trouble & secret enemies & imprisonment

7. Peace (air pink)
marriage & partnership

& sextile config.

5. Yeul (fire orange)
romantic & dramatic & children & no. of them

9. Wisdom (fire grayish blue)
politics & religion
philosophy & education

& sextile config.

11. Beauty (air purple)
friends

middle area

6. Goodness (earth blue)
health & work (virgin)

& square config.

3. Hope (air yellow) (twins)
mentality & communication

10. Joy (earth brown) (goat)
prominence

& square config.

1. Faith (fire red)
personality (ram)

2. Love (earth green) (bull)
money & finances

& opposition configuration

8. Thanksgiving (water black)
birth & death (scorpion)

Patriots Good

neutral neutral

Tories Bad

to the weakest

Heaven on earth
old time religion
right wing politics

moderates

the World
new time religion
left wing politics

Devils have another side of the universe to live in but when they are born on this side in the form of human beings they can have a negative of the same blessings as humans have. Judas went to heaven. They otherwise are catagorized (here) with opposites the same as hurt people and hellions are.

(turn page over)

Parallels

(for hurt people & hellions to avoid if they want to improve)

The wicked spirits sins of the carnal

Devil & Humans

the same extra catagories are not on this chart (this one is all hell or hurt)

their colors are all black & white

4. Deprivation (water) underworld + rowdy gangs

& trine configuration

12. Wretchedness (water) devastation, antisocialites appear, & escapism passtimes

7. Warfare (air) slavery & servitude

& sextile config.

5. Viciousness (fire) scornful & daring pets & no. of pets

9. Foolishness (fire) dictatorship & witchcraft criminality & ignorance

& sextile configuration

11. Ugliness (air) enemies

6. Evil (earth) sickness & demolition

& square config.

3. Despair (air) emotionalism & repulsiveness

10. Torment (earth) notoriety

& square config.

1. Dread (fire) one's front

2. Hatred (earth) weapons & organized storage

& opposition configuration

8. Vengeance (water) death & birth

These things are alright to experience, if we consider them our cross. Or else, admit such stuff is hellishness. But hell doesn't have to last forever.

We can experience the joys of heaven, because of God. Give glory to God. We don't have to depend on our own righteousness. Give God credit for strength. — See page 6, front.

(turn page over)

Life = 4. strength / Light = 9. Wisdom / Love = 2. Love

Life is the cardinal signs
4. Strength, 7. Peace, 10. Joy, 1. Faith

Light is the ___?___ signs
9. Wisdom, 6. Goodness, 12. Experience, 3. Hope

Love is the fixed signs
2. Love, 5. Zeal, 11. Beauty, 8. Thanksgiving

(at least sometimes the spiritual is even better described by - Life = Light and Light = Life. There are four apiece.)

There are spiritual blessings and natural blessings for each. Will most commonly gives natural blessings, and Grace most commonly gives spiritual blessings. You can ask for both.

for astrological good policies too
the signs + the houses are the same (nos. etc.)

God loves you to pick needs. They are the best thing to pick these eternity time days.

God is needs. God is love. God is joy. God is all of those spiritual blessings. They are the sons of the Spirit or they are the fruits of the Spirit.

I ask for God's godliness, love, and needs.

Give God his fruity reward through the Spirit.

If you have faults, be thankful for them. If you are hurt, you might not be able to avoid it, so be thankful for it.

God might just be showing you he'll save you from it.

But God likes to be put first, and puts the best needs first.

Needs = blessings and
blessings = needs.

for yrs. from now so don't lose it — people that have lost or can't locate their first or more copies, should ask God (or those knowing it in Heaven) and write down what's missing for themselves, or at least ask to have it read to them (+ if they ever get curious to know what some of it is again for help, ask heaven again, + maybe jot that much down, to refer to.)

People should pray + know these things for themselves though!

---

early — afterthought —

When a person starts testing themself to see if they can get by with it, it's time to quit. A person might not be feeling so well sometimes, but they wouldn't want to think it's because they don't pass <u>that</u> stuff.

---

you can make a photo-static copy of this for interested parties. They can pay you something for it though. Luray Copy Service charges 14¢ per side on average.

especially can be used for spiritual blessings and natural blessings of which a forest can be both; this letter is also for just plain good religion

it can't each have copy — each [illegible] (take [illegible]

I don't know if I've even got time for this — in case anybody's interested in hell, you can discover that part of information for yourself by estimating an opposite to any of what I've written. For a model — try the back of page 6, lower left side, that starts out like this —

"a devil hates us avoiding hurts. They's worsts avoids those past's brief yrs! a devil was hurts. a devil was hate. a devil was torment. a devil was none the bodily curse. It were a father a devil. It were the origin-ator a devil. Etc., etc., etc."

— not too accurate mine, you can

June 18 — only for later copies do your own.

from other side —

You can let other people read it too, but don't lose it doing that.

Sincerely,
Janet

682 National Av
Winchester, Va
22601
Recd 6/27/11

Dear G.W.N.F. staff,

Thank you for your time. As a nearby resident, I am a very frequent visitor to GWNF. I support strong protection of the natural resources, wildlife, and scenic areas of GWNF. I oppose significant gas + oil drilling in the forest. I oppose wind towers in the larger scenic and/or roadless areas

of the forest. The GWNF needs to remain as a natural area, not be exploited for human energy and resource extraction.

Thank you,

Mark A Bruns

Rec phone call 6/14/11
from Jerry Vance, Staunton

- He is opposed to any additional wilderness in revised plans. Would like to see more Timber harvest & more camping areas.

Elwood Burge

GEORGE WASHINGTON NATIONAL FOREST'S NEW PLAN

4 RITCHIE ST. BUCKHANNON, W.V. 26201

DON GASPER, FISH BIOLOGIST W.VA. D.N.R. - RETIRED

JULY 5 2011 MY COMMENTS UNDERLINED

FOREST PLANS

THE LAST (PRESENT) PLAN CAME OUT IN 1993.
IT WAS BASED ON THE 1982 GUIDANCE FOR MAKING PLANS.
THIS 2011 DRAFT PLAN, REVIEWED HERE, USES THE OLD 1982 RULE.*

THE "NICHE" STATEMENT (TODAY'S CONDITION) IS VERY VERY IMPORTANT. IT IS WHAT THE U.S.F.S. THINKS OF THEIR (OUR) RESOURCE. IT LACKS VISION; FULL OF OLD IDEAS, MANY
PAGE 1-5 FROM FORESTS MORE SOUTHERN. THE GIST OF THIS PLAN IS THAT THIS FOREST MUST BE MANAGED, RATHER THAN ALLOWING IT TO BE ALL IT CAN BE. IT ASSURES THAT ALL THE MANAGEMENT OPTIONS, INCLUDING FIRE, ARE RETAINED.

THE G.W. NAT. FOREST IN THEIR VIEW IS HELPFULLY DETAILED. IT HAS 760,000 AC. IN VA., AND 196,000 AC. IN W.VA. THE BOUNDARY INCLUDES 1.8 MILL. AC., OF WHICH IT IS 60% U.S. LAND. IT ENCLOSES THE SHENANDOAH VALLEY, AND 9 MILLION CITIZENS LIVE NEAR-BY. IT PROVIDES: (IN ADDITION TO THESE 6, A LIST ON MY PAGE 6.)

1. SCENIC ENVIRONMENT FOR ALL KINDS OF OUTDOOR RECREATION.
2. EXTENSIVE REMOTE WILD AREAS. LARGE BLOCKS, MANAGED FOR LONG TERM HABITAT IN THE LANDSCAPE,
1-6
3. PUBLIC LAND ACCES FOR HUNTING, FISHING, ETC. THESE WITH THE COOPERATIVE MANAGEMENT WITH VA. + W.VA. + U.S.F.W.S.
4. IT PROVIDES TIMBER FOR THE 217 NEAR-BY SAWMILLS.
5. IT PROTECTS ENDANGERED SPECIES: SALAMANDERS, ETC. LAUREL FORK HAS THE ONLY RED SPRUCE ON THE FOREST.
6. IT PROVIDES NATURE EDUCATION, AND CIVIL WAR HISTORY, AND CIVILIAN CONSERVATION CORPS HISTORY.

* THIS FOREST PLAN MUST (THANKFULLY) BE REMADE (OR REVISED) WITHIN 4 YEARS, USEING A NEW GUIDANCE RULE THAT IS BASED UPON THE UP-TO-DATE, SUPERLATIVE 2000 GUIDANCE. SADLY THE DRAFT PLAN WE ARE GIVEN TO DAY IS NOT "A SIGNIFICANT DEPARTURE FROM THE PAST."

COMMENT FIRE 1. THE VIGIORUS MANAGEMENT IMPLIES THE U.S.F.S. DOES NOT UNDERSTAND THIS SPECIAL RESOURCE VERY WELL, AND ALSO SADLY AN ARROGANCE THAT THEY KNOW WHAT IS BEST.

IT PRESENTS SOME TREE-RING CONCLUSION THAT FIRE WAS COMMON IN THE "RECENT" PAST. THE FACT THAT CIVIL WAR, OR COLONIAL EARLY SETTLERS IN ATTEMPTS AT FARMING, OR THAT INDIANS USED FIRE INFORMS US LITTLE ABOUT NATURAL CAUSED FIRES IN THIS FOREST. YOUR CLAIM, SEEMS TO STATE FIRE COULD BE EXPECTED EVERYWHERE-EVERY 350 YEARS! THIS IS SIMPLY UNBELIEVABLE, AND IT IS YOUR PREMISE JUSTIFYING FIRE THAT IS SO MUCH OF YOUR PLAN!

TRUE, RECENTLY, FIRE HAS BEEN PREVENTED AND EFFICIENT CONTROLLED. WE DO NOT SEE IT MUCH HERE TODAY, BUT WE DO NOT SEE, "AN ACCUMULATION OF FUEL" EITHER. THIS IS CLAIMED, BUT NOT VERIFIED; AND THIS COULD BE CHECKED TODAY. MORE ON FIRE (2-18, ETC.) AS YOU COMMENT THROUGHOUT, JUSTIFYING IT. YOUR MANAGEMENT WITH FIRE JUST CONTINUES THE MAN-CAUSED FIRE TO CONTINUE THE "DISTURBANCE REGIME" WE NOTE TODAY-THAT IS NOT SUSTAINABLE AS AN EARLY SERIAL STAGE IN FOREST SUCCESSION. YOU ARE USING MAN-CAUSED FIRE, AS DID THE INDIANS; THE OCCURANCE OF NATURAL-CAUSED FIRE IS UNKNOWN. THE IMPLIMENTATION OF FIRE IN THIS PLAN IS OUR THRESHOLD MOMENT TO LITTERALLY REVERSE THIS 50 YR. HISTORY OF MIS-MANAGEMENT...TOWARD WATERSHED RECOVERY. ALLOW THIS FOREST WITH IT'S REDUNDENT BACK-UP SYSTEMS, SOME ANEMIC, SOME GONE, BUT MOSTLY UNKNOWN, EVEN UNKNOWABLE TO DEVELOPE WITH A CAUTIOUS, HUMBLE MANAGEMENT - ALLOW IT TO BE ALL IT CAN BE. THIS FOREST IN THE MID-ATLANTIC HIGHLANDS, WITH THE MONONGAHELA, PROVIDES A LANDSCAPE THAT IS A TAP-ROOT INTO THE 1,000 YEAR OLD REGIONAL FOREST OF OUR BEGINNING. COLLECTIVELY THESE LAND-TYPES STILL RESONATE A WITNESS OF THE OLD FOREST AND TODAY WITH A HOPE OF RECOVERY.

2-5 "TO RETURN HISTORIC FIRE CONDITIONS REQUIRE AN INCREASE IN FOREST-WIDE BURN ACREAGES FROM RECENT YEARS." NO.

2-7 "ECOSYSTEMS ARE INTACT - AS RESILIENT AS POSSIBLE AND IN THEIR NATURAL STATE". THIS IMPLIES THE USE OF FIRE; IT IS NOT THE NATURAL STATE, BUT SUCH SUBSTRATE MUST BE MAINTAINED. "FIRE IN RAPARIA IS RARE." (THIS IS 2-14, AND TRUE.) "CONTINUING SUPPRESSION OF WILD FIRES" THEY SAY IS BAD! (2-18) *

2-20 "FIRE HISTORICALLY EVERY 3 TO 9 YEARS FROM 1600 TO 1900. THERE WERE FREQUENT FIRES ON 80% OF THE G.W." THIS IS WRONG. THE FIRE DISTURBANCE WE SEE IS A RESULT OF MISMANAGEMENT FOR DISTURBANCE SPECIES THAT ARE HABITATS FOUND EVERYWHERE SOURROUNDING THIS GREAT FOREST UNIQUE IN THE LANDSCAPE.

— DESIRED FUTURE CONDITIONS" ** GROWS FROM THE NICHE STATEMENT. THE NICHE DID NOT DETAIL WHAT WE KNOW ABOUT THE ORIGINAL FOREST. THE LEAVES CAUGHT RICH DUST FOR 12,000 YEARS AND INCORPURATED IT INTO A DEEP FOREST FLOOR - VISITS BY THE WOODS BUFFALO AND FLOCKS OF PASSANGER PIGEONS, LIKEWISE. THERE WAS ALWAYS BEAVER AND EDGE, BOULDS ETC. SPRINGS ISSUED FROM THIS FOREST FLOOR INTO NARROWER SHADED STREAM-BEDS, AND BROOK TROUT WERE FOUND DOMINATE IN VIRTUALLY EVERY STREAM UNDER 50' WIDE. THE EXPORTS FROM THIS EASTERN FOREST OF BEAVER, DEER WERE HUGE. ETC.

IF THE USFS SCHOLARS BEGIN WITH THIS AND MORE (EARLY MAN IF ABUNDANT PICKED UP ALL DOWNED WOOD FOR HIS FIRES.) THEN REALISTICLY, YET WITH VISION, THE DESIRED FUTURE CONDITION (D.F.C.) CAN BE DESCERNED. THE PLAN STATES:

1. HEALTHY WATERSHEDS, PRODUCTIVE SOILS AND GOOD AIR
2-1 2. RESTORE HEALTHY, DIVERSE AND RESILIENT WATERSHEDS.
3. "SUSTAIN DIVERSE TERRETRIAL, AQUATIC & VEGETATIVE COMMUNITIES UNIQUE TO THE SOUTHERN APPALACHIANS."
4. AREAS ARE MANAGED FOR WILDLIFE HABITAT.

* 4-69 "FIRE SUPPRESSION IS TERMED A 'DISTURBANCE'"! NO.
4-125 13:15 "FIRE ENSURES CONTINUED PRESENCE OF FIRE DEPENDENT ECOSYSTEMS". BI
* FUEL LOAD CONTRIBUTES TO FERTILITY. DON'T BURN IT.
** "THE D.F.C. CAN VARRY THROUGH THE FOREST AREA."
THIS MIGHT BE A GOOD IDEA.

4-35 SCENIC VALUE = "NATURAL PROCESS PRODUCE THE VALUED CHARACTER OF THESE LANDSCAPES IS INTACT WITH NO DEVIATIONS. THE LANDSCAPE IS THAT OF CONTINUOUS FOREST COVER OF PREDOMINATELY HARDWOOD SPECIES."
CLEARCUT MOSAICS ARE INCOMPATABLE WITH THESE SCENIC VALUES.
THIS IS AGAIN ADDRESSED AT 4-122, 4-123 + 13310.

1-7 . THEY OFFER THE D.F.C. AS FOLLOWS - "IT DESCRIBES THE APPEARENCE AND CONDITION OF VARIOUS NATURAL AND SOCIAL RESOURCES WITHIN THE AREA - GIVING A SENCE OF THE EXTENT OF HUMAN INFLUENCE THAT A FOREST VISITOR COULD EXPECT."

COMMENT YOU HAVE ASKED YOUR FOREST VISITOR ABOUT THE G.W.'s (AND THE JEFFERSON'S) D.F.C. IN A CITIZEN'S VALUE POLL ABOUT 2000.* IT WAS WELL DONE, AND THOUGH OF GREAT USE IN THE PREPARATION OF YOUR PLAN, IT WAS NOT MENTIONED. THE GREATEST VALUE (93% OF RESPONDENTS) WAS FOUND TO BE "NATURAL APPEARANCE" - A VAST VISTA OF UNBROKEN FOREST CANOPY; WILD, WITHOUT A SCAR (ROAD) OF MAN. THEY DID NOT WANT A PATCH-WORK, A MOSAIC, OF DIFFERENT STAGES OF REGROWTH. G.W. HAS CALLED THIS "DIVERSE" WATERSHEDS AND COMMUNITIES IN THEIR D.F.C. IT IS UNNATURAL IN APPEARANCE. THE "FOREST VISITOR" COULD "EXPECT" SUCH A EVER MORE VALUABLE AND EVER RARER EXPERIENCE ONLY IN SUCH A GREAT FOREST. IT EMERGES, "UNIQUE" (YOU USE THE WORD) FROM A SEA OF LESSER FORESTS AND EDGE.

YOU HAVE A WATERSHED MOMENT TO STEER YOUR MANAGEMENT TOWARD ITS RESTORATION - AS NEAR AS POSSIBLE, IN THE LONG RUN. THE DIVERSITY YOU SEAK IS NOT WANTED BY THE PUBLIC. IT IS INAPPROPRIATE FOR A GREAT FOREST TO MUCH SUPPORT THOSE SPECIES COMMON TO CONDITIONS BEYOND. IT IS THE GREAT FOREST THAT IS RARE IN THE LANDSCAPE. DO NOT WORK AGAINST NATURAL PROCESSES, BUT WITH THEM. DO NOT WORK TO SUSTAIN SUCH DIVERSITY FOUND NOW; AGAIN LET THIS FOREST UNTIGHERED WITH ~~MANAG~~ WELL INTENDED BUT INTRUSIVE MANAGEMENT; BE ALL IT CAN BE.

2-2C : THE D.F.C. AND THE FOREST "CONTRIBUTES PICTURESTIC MOUNTAINS AND VALUES OF GREAT BEAUTY". "THE MAJORITY OF THE LANDSCAPE PROVIDES A NATURAL APPEARANCE". "SCENIC & ASTHETIC VALUES ARE MAINTAINED" "SCENIC INTEGRETY IS WHEN A NATURAL OR SOCIAL VALUED LANDSCAPE IS VISUALLY PERCIEVED TO BE COMPLETE AND INTACT" YES! YET 507,000 AC. 48% COULD OFFER A MOSAIC, PATCHY VIEW SHED.

* A BRIEF OF THIS POLL IS ENCLOSED.

CITIZENS "DESIRED FUTURE CONDITION" FOR THE MONONGAHELA NATIONAL FOREST.

By Don Gasper

The U.S. Forest Service conducted a professional polling of their southeastern forests in 2002 to determine what citizens wanted their management to address now and in the future. They state, "Knowing what the public wants to emphasize in the management of National Forests must be the foundation for revising plans." All these forests are preparing plans that would direct their management for the next 20 years. The Jefferson and the George Washington, with land in West Virginia, are included. The Monongahela was not. However, the poll extended another 75 miles beyond their boundaries, and the eastern half of W.Va. was sampled. Of the random 20 minute phone interviews 4.2% were from W.Va., and it was found 23% of the total visitors to the G.W. were from W.Va. (54% lived in Va.) There were 1,403 interviews, (with respondents over 16 years old, half were male) concerning the Jefferson and 584 concerning the G.W: The G.W. is obviously more applicable to the Monongahela, but there is little difference (under 10%) between the G.W. and the Jefferson replies.

The Monongahela does need to conduct its own polling, and the W.V. Highlands Conservancy hopes to help with this. There is much to be done to determine citizen attitudes today about this Forest with visitors from Pittsburgh, D.C. and W.Va. - even Ohio. These figures give us our first glimpse of the citizens' "desired future condition" for this Forest.

The 13 major findings (values) from all the respondents concerning the George Washington and Jefferson National Forests were as follows. (94/86 means for the Jefferson 94% thought it "extremely important" and 86% thought it "important" and "values" less supported show as values like 38/23.)

	JEFF..	G.W.	COMBINED	S.APP.	NATION
Maintain for Future Generations	94/86	93/82	94/86	93/84	92/80
Protect sources of clean water	95/89	91/82	94/87	94/86	94/83
Protect wildlife & habitats	91/75	86/70	90/73	89/72	88/69
Leave them natural in appearance	90/74	86/69	89/72	86/67	86/64
Protect trees to emphasize healthy forests	90/75	84/67	89/72	88/70	
Protect rare & endangered species	85/71	84/68	84/71	83/70	84/67
Provide information & education	82/60	79/54	82/58	80/56	79/52
Provide natural places for personal renewal	81/61	74/53	79/58	76/54	74/49
Provide outdoor recreation	77/52	72/47	56/50	74/48	73/45
Provide abundant timber supply	71/55	72/55	71/54	72/55	78/58
Help local tourism	58/37	54/32	57/36	57/36	56/31
Grazing	45/26	44/22	45/25	45/26	50/28
Provide raw materials and products for local industries	38/23	40/23	38/22	39/22	45/25

People (all respondents) "who reside in the areas near the Virginia (northern) forests" (the 75 mi. radius)

> "clearly put ecosystem and naturalness above utilitarian objectives in the management of these National Forests. This hierarchy of priorities is highly consistent with the Natural Resources Agenda developed for the Forest Service over the last few years. Residents of the Southern Appalachians seem to have become more concerned about the environment and more supportive of further protecting it. They would support more environmental regulation."

> "Visiting a wilderness or primitive area is 3% higher than for the rest of the Southern Appalachians" in the Jefferson and George Washington. "This is 10% higher than the national average. "Visiting wild areas and day hiking is 10% higher than the national average. "Most visitor, satisfaction depends on natural forested settings."

All the southeast National Forests expect wilderness use to increase 150% or 2.5 X over 1990 levels by 2005. The U.S.F.S. suggests this is an underestimate, and that there has been a deficit of wild areas even in the year 1990. They state, "The need for more wild areas will have to be addressed as new Forest Plans are developed." Wilderness, while it excludes some uses, they note has multiple uses.

> "Wilderness protects water and air quality; provides cost effective protection for many rare, threatened, and endangered species; preserves diversity and unique ecosystems; provides therapeutic rehabilitation for individuals; represents a laboratory (an experimental control) for study of natural processes; provides for spiritual growth; and represents a symbol of national identity for many Americans *(ibid.,* Gorte 1989)."

We certainly concur and further suggest ecosystem recovery at all scales (from a log to a mountain to a watershed to an eco-region to the Mid-Appalachian Highlands) might best be achieved with a Wilderness designation.

Note also the following table's values for "more Wilderness" 66/42. It was only about the 12th most supported value - below "more trails", "more law enforcement" and "restrict mineral removals". It may be reduced because it would reduce road access, and we note about 30% think new paved roads for cars to be extremely important. It may be reduced because of the nature of the question. We concur with the U.S.F.S. evaluation that Wilderness is important - and more is needed.

These forests "are valued highest as a legacy of natural forests in good condition to pass along to future generations for the protection they provide for sources of clean water, for the protection they afford wildlife and wildlife habitat, for their natural appearance, and for the protection of rare and endangered species."

"To the public - clean water, healthy forests and wildlife are most important."

"A growing diverse consumptive society, yet express a deep concern and caring about the future of our National Forests."

"Societal values shift toward more sensitivity for maintaining the natural condition and appearance of lands and forests."

And we concur. Hopefully all users and visitors of The Monongahela will also.

	JEFF..	G.W.	COMBINED	S. APPL.
Protect streams, lakes, & watersheds	95/80	89/75	93/78	92/79
Wildlife habitats	91/75	87/67	91/73	90/73
Critical homes for plant and animal species should be protected	94/71	91/66	94/70	93/69
Protect old growth forests.	85/65	82/59	85/64	85/66
Habitat for wildlife & bird viewing	85/64	80/60	85/63	84/61
Open areas for wildlife	78/51	70/49	76/50	74/48
Use controlled fire	74/56	65/44	72/53	74/53
More controls on tourism - 2nd home development	75/43	76/44	76/43	76/43
Endangered Species Act has not gone far enough	75/41	71/39	74/41	73/42
Trails (foot and horse)	71/40	72/40	72/40	69/36
More law enforcement	70/49	68/44	70/48	68/48
Restrict mineral removals	65/52	63/47	66/52	64/49
More wilderness	66/42	64/43	66/42	67/41
Increase size of National Forest	66/43	57/37	64/42	65/44
Make management decisions at local level	65/40	61/39	64/40	64/37
Allow mgmt. activities near streams	60/35	57/37	61/36	61/35
Allow recreation fees that go back to management	58/34	55/31	58/33	59/33
Increase wildlife for hunting	52/31	54/33	52/32	47/28
More important to protect streams for trout than for other species	51/23	44/19	49/24	49/23
Trade public for private land to eliminate in-holdings or acquire natural areas	42/22	36/20	42/22	45/23
Expand commercial rec. services	37/20	36/21	36/20	36/20
Allow harvesting and mining to support communities	36/23	37/20	36/22	36/20
New paved roads for cars	31/20	28/12	31/18	34/20
Expand access for motorized off highway vehicles	23/13	20/12	23/13	23/13
Allow commercial leasing of oil and gas rights	21/15	18/12	21/14	20/12
An objective should be more timber production, mining, and other commercial uses.	26/10	27/14	26/11	28/10

2-3 ACID RAIN - "DECADES" OF ACID RAIN.

BUT "FOREST STREAMS LOCATED IN WATERSHEDS OF BASE-POOR BEDROCK + SOILS ARE NOT BEING NEGATIVELY IMPACTED" THIS IS WRONG. YOU SURELY SHOULD ~~NO~~ KNOW BETTER.* "DEPOSITION PARTICULARLY BY SULFATES AND NITRATES". THIS IS RIGHT.

2-4 "FOREST RESOURCES ARE FREE OF POLLUTION IMPACTS"

2-6 GEOLOGY IS WELL DONE.

2-8 AGAIN, EVEN AGED MANAGEMENT, CLEARCUTS, ETC. THAT MAINTAIN OPENINGS FOR WILDLIFE ARE UNNATURAL IN APPEARANCE. THIS IS THE MOSAIC MIX THAT HAS BEEN COMMENTED ON IN THE B.F.C. FURTHER, NO NATIONAL FOREST SHOULD BE A STATE WILDLIFE AREA / HUNTING + FISHING AREA WITH ITS ARTIFICIALLY HIGH POPULATIONS OF GAME. NEITHER SHOULD THEY BE A TREE-FARM.

2-13 OAK FOREST DOMINATE AND OTHERS WITHIN IT. THE G.W. IS 87% MED.-LATE SUCCESSIONAL STANDS. SHOULD BE IN NICHE.

2-14 RIPARIA BRIEFLY ~~&~~ WELL COVERED. AS TREATED IN THE APPENDIX EPHEMERAL STREAMS BEGIN UP-SLOPE A SOON AS CHANNEL SCOUR OCCURS. BUT EVEN BEFORE THE OFTEN INTERUPTED, TINY OPEN CHANNEL OCCURES THERE IS AN UNDERGROUND MACROPORE PIPING DRAINAGE SYSTEM THAT MUST BE PROTECTED FROM COMPACTION. A RIPARIAN PROTECTION ZONE SHOULD BE EXTENDED UP SLOPE. (THE 15' EACH SIDE OF THE OPEN CHANNEL JUST BELOW WILL SUGGEST WHERE THE MACROPORE LAY.

BROOK TROUT ARE A GOOD INDICATOR OF ACID RAIN. THE SPECIES ASSOCIATED WITH IT ARE LOST FIRST. THE FOREST HAS A CONCERN THAT BROOK TROUT POPULATIONS CAN MEET THE PUBLIC DEMAND.

* THE MONONGAHELA THAT GETS 2x YOUR ACID RAIN HAS LOST 1/4 OF THE LENGTH OF ITS BROOK TROUT STREAMS OVER THE LAST 50 YEARS. YOU RECORD THE ACIDIFICATION AND ALMOST LOSS OF ALL FISH IN THE ST. MARY'S RIVER IN 50 YEARS (GENE SURBER). THE ACIDIFICATION OF SHENANDOAH NAT. PARK STREAMS HAS BEEN NOTED (RICK WEBB).

2-14 BEAVER STATUS AS A GOOD INDICATOR OF WETLAND RESTORATION, AND A GOOD "KEY-STONE SPECIES".

OLD GROWTH – D.F.C. SHOULD EVENTUALLY PREVAIL – (THE U.S.F.S. HERE PROPOSES TO BUCK SUCCESSIONAL FORCES). OLD GROWTH OBLIGATE PLANTS AND ANIMALS SHOULD CHARACTERIZE THIS BIG FOREST WITH ITS BIG, IMPRESSIVE TREES. "GAPS", ABOUT 2 ACRES, OCCURE AS OLD TREES FALL AND ALONG WITH WIND FURNISH THE GAP-PHASE DYNAMICS IN A CLIMAX FOREST THAT IN MANY CASES IS 100 YEARS AWAY.

OLD GROWTH* WOULD BE WELL DISTRIBUTED, EMBEDDED IN MID-LATE SUCCESSIONAL AREAS THAT ARE GENERALLY CONNECTED. ON THE REST OF THE FOREST OCCURE IN SMALL-MEDIUM PATCHES.

THE WILDERNESS AREAS 60,000 AC., WITH 420,000 "BACK-COUNTRY AREAS" THIS AND THE FACT THAT THEY HAVE 3 A.T.V. (70 MI.) TRAILS SHOULD BE IN THE NICHE STATEMENT. ALSO THEY PROPOSE TO HARVEST 1,300 TO 3,000 AC./YR. AND THAT HAVE 240,000 AC. CONSIDERED "ROADLESS" AND A TOTAL WITHDRAWN FROM THE TIMBER-BASE OF 357,000 AC. FINALLY THEY HAVE 75 MI. OF PASSANGER CAR ROADS AND 105 MI. OF HIGH CLEARANCE VEHICLE OPEN ROADS; AND THEY HAVE 55 MI. OF RIVER ELEGABLE FOR WILD-SCENIC STATUS. FINALLY, AGAIN, THEY HAVE 20 CAMP-GROUNDS, 8 SWIM/BEACHES, 21 DEVELOPED TRAILHEADS, ETC.

2-20 OUTDOOR RECREATION – "MORE DEMAND FOR FACILITIES THAN THE G.W. CAN CURRENTLY PROVIDE FOR." "THE G.W. HAS "SPECTACULAR SCENERY AND UNIQUE ECOSYSTEMS."

"SCENERY SHOULD NOT BE DEGRADED FOR MORE THAN 4 YEARS BY ANY ACTION." "SPECIAL PLACES" ARE IDENTIFIED.

(A VIEWSHED WITH A PATCH OF MANIPULATED VEDGETATION, A MOSAIC, CAN STILL BE CLASSED AS "HIGH" VISUAL QUALITY.) THIS SHOULD BE REALIGNED WITH TODAYS VALUES.

* "OLD GROWTH IS NOT SUSTAINABLE" CITIZENS MUST HAVE AN OPPORTUNITY TO TALK WITH THE U.S.F.S. ABOUT A DECAYING FOREST. "OLD GROWTH" "ON G.W. LANDS WILL INCREASE BY 1/3 IN 10 YRS. – FROM 244,500 TO 363,000 AC.

3-19 SCENERY AND CLEARCUT PATCHES.

THAT THE U.S.F.S. CONSIDERS THEM UNNATURAL APPEARING

IS IMPLIED IN THE FOLLOWING - SOME THINK UGLY!

"OPENINGS" SHOULD BE "FEATHERED" AT THE EDGE.

"OPENINGS SHOULD BE SHAPED TO BLEND.

40 AC. LIMIT ON SIZE & MUST BE 1000' APART.*

REMOVAL OF OVERSTORY ONLY AFTER UNDERSTORY IS 14' TALL.

NO CLEARCUT TILL REGROWTH 20% OF ADJACENT TREE HEIGHT.

"OPENINGS SHOULD BE LESS THAN 1.5 AC." ?

YET UP TO 25 AC. & 40 AC. ARE OK IF INCLUSIONS ARE LEFT.

SCENIC VALUE RATING FOR THE FOREST

VERY HIGH = 45,000 AC

HIGH = 432,000 AC

MOD. = 182,000 AC

LOW = 405,000 AC **

"CLEARCUTS - "IN 10 YEARS FROM 20,000 - 30,000 AC. CUT.

MOST IN OAKS.

SHOULD LEAVE 6 SNAGS/AC.

3-20 TIMBER IS PART OF VEGITATION MANAGEMENT > MULTIPUPLE USE.

"PRIMARY" PRACTICE WILL BE, TWO-AGED SHELTERWOOD WITH RESERVS.

OR MODIFIED SHELTERWOOD

SOIL DISTURBANCE - 85% OF SURFACE MUST REMAIN INTACT. ***

ROTATION AGES - CUTTING SCHEDULE

UPLAND HARDWOOD	80 - 180 YRS.
LOWE HARDWOOD	70 - 180 YRS
WHITE PINE	60 - 100 YRS
OAKS	60 - 100 YRS.

GROWTH SLOWS AT 50 YEARS

3-19 BEAVER - A KEYSTONE SPECIES

REDUCE FLOODS, SUSTAIN OTHERWISE LOW FLOWS.

RECHARGE GROUND WATER

CUT SEDIMENT

TRUE BUT POND SITE ABANDONED EVERY 20 YRS. AND CAN THEN RELEASE STORED SEDIMENT.

BUT CAN SPREAD WATER IN SUN OVER DARK SHALLOW BOTTOM, WARMING THE STREAM.

BEAVER DAMS MAY CONSTITUTE FISH BARRIERS.

* ELSEWHERE. CLEARCUTS MUST BE SEPERATED BY 330'

** WHY IS 400,000 OF LOW SCENIC VALUE? IF VALUE RATE IS VALID, IDENTIFY IT AS AN "ISSUE" - AND IMPROVE IT.

*** NO WAY TOO MUCH DAMAGE. DETAIL. JUSTIFY.

STREAMS

BARRIERS TO UPSTREAM MOVEMENT OF FISH SHOULD BE REMOVED.
UNLESS THE FISH BIOLOGIST WANTS TO KEEP THE FISH POPULATION BELOW OUT. CONSENSUS MANAGEMENT NEEDED.

STUDY - STREAM DEVIDED INTO 6TH LEVEL H.U.C.S.
PRIORITIZED FOR WORK HOW, WHY?

4-35 FISH HABITAT IMPROVEMENT IS OK, BUT MUST APPEAR NATURAL.
NO DAMS, MUST BE FREE FLOWING; GENERALLY, BUT FISH MANAGEMENT MAY REQUIRE A BARRIER DAM. AT WHAT HEIGHT IS THIS PROHIBITION A CONCERN? L.W.D. WILL BE PASSIVE RECRUITMENT.
STOCKING "ALLOW ONLY TO REESTABLISH INDEGINOUS, THREATENED ENDANGERED OR SENSITIVE SPECIES WITH SUPERVISOR'S OK." x
LIMING IS OK.
RIPARIA 25' ON EACH SIDE OF EPHEMERAL CHANNEL. GOOD
25' UPSTREAM TO THE POINT AT WHICH THE SCOUR CHANNEL BEGINS (NICK POINT). GOOD
NO MORE THAN 50% OF BASAL AREA REMOVED. TIMBER CAN BE REMOVED BEYOND 30' CORE, BUT NO VEHICLES. GOOD
ENHANCE SCENERY, YET FIRES OK.
NO ROADS. NO GRAZING, YET (11-019) OIL & GAS AND MINERALS OK. NO
WHEN SLOPES EXCEED 10% IT IS EXTENDED BEYOND THE CORE AREA. TIMBER, FIRE AND GRAZING CAN BE CURE. NO, GRAZING?

4-21 TIMBER - PARTIAL SUSPENSION REQUIRED WHEN ~~LOADING~~ YARDING LOGS OVER CHANNELS, EPHENERAL CHANNELS. NO
NO CUT OF HEMLOCK

TIMBER - IF SLOPE 30% +, USE CABLE OR HELICOPTER LOGGING
NO HEAVY EQUIPMENT. OK
"EARLY CUT FROM 1300 TO 3000 AC.
WILL NOT REMOVE TIMBER FROM SOILS OF LOW PRODUCTIVITY.
GOOD. WHERE? HOW MANY ACRES? CRITERIA (C.E.E)?
41,000 AC. "IRREVERSABLE DAMAGE & CAN'T RESTOCK.
(337,000 AC. = TOTAL OF U.S. LAND WITHDRAWN.)

4-27 WILDERNESS. PROPOSAL 20,700 AC. - ENLARGES ST. MARYS, 3,000 RAMSEY, GOOD
THEY WOULD MAINTAIN EXISTING FOOD PLOTS, BUT NO NEW ONES. NO
WILL CAMPFIRES BE ALLOWED IN WILDERNESS? WHERE?
4-34 "WILDERNESS AREAS, AND STUDY AREAS, UNAVAILABLE FOR WIND"
GOOD. HOW ABOUT VIEW-SHEDS FROM A WILDERNESS?

3-24 WILDERNESS, WILD-SCENIC RIVER CANDIDATES PRESERVED.
ROADLESS AREAS, 240,000 ACRES ALSO, PRESERVED. GOOD

x STOCKING "STOCKING OF NEW, NON-NATIVE SPECIES AND STOCKING OF PREVIOUSLY UN-STOCKED AREAS IS NOT ALLOWED WHERE IT WILL NEGATIVELY IMPACT AQUATIC SPECIES OR COMMUNITIES". WILL COORDINATE WITH STATE & U.S.F.W.S.
"INTRODUCING FISH INTO RARE WETLAND COMMUNITIES IS PROHIBITED." NO.

3-20 ROADS - INFRASTRUCTURE

GOOD - SAFE, APPROPRIATE ACCESS

BAD - HABITAT FRAGMENTATION
SCENIC "
DISTRIBUTE INVASIVE SPECIES
INCREASE SEDIMENT
" RUN-OFF & FLOODING
INAPPROPRIATE DEGREE & NATURE OF ACCESS.

"MINIMUM ROAD SYSTEM" HAS BEEN IDENTIFIED
WILL REDUCE ROADS BY 100 - 200 MI. IN NEXT 10 YRS.
BUT DECOMMISSIONING AT PROJECT LEVEL.
WE SHOULD SEE IF COMPREHENSIVE AND
BALANCED - NOT PIECE-MEAL. SHOULD BE
PART OF THIS PLAN.

FIRE IS PERMITTED ALONG SCENIC ROADS (CORRIDORS)
EVEN WHEN "SCENIC VALUES" ARE "VERY HIGH", "HIGH",
OR "MODERATE" NO

Y-67 "HIGHLAND SCENIC BYWAY" IS A 20 MI LOOP ROAD THAT IS
FEDERALLY DESIGNATED. TIMBERING IS OK NO

SCENIC CORRIDORS ± 1/2 MI. ON EACH SIDE
"SCENIC DRIVING" 35,000 AC.
"NATURAL APPEARING, FOREST, MEADOWS, CABINS,
GATEWAY COMMUNITIES, LIVE-STOCK - CULTURAL"
"CLEARCUTS MAY ONLY BE USED TO ENHANCE SCENIC
VISTAS". THESE ARE MADE ON THE SLOPE BELOW ROAD.
FIRE, OK. NO. OIL, GAS & MINERAL EXTRACTION, OK. NO.
INFORMATION CENTERS. GOOD. ROADSIDE PICNIC AREAS
WOULD BE GOOD.

A.T.V. - 70 MI. DESIGNATED TRAILS.
RESEARCH NATURAL AREAS LITTLE LAUREL RUN 2,000 AC
RAMSEY'S DRAFT 2,000 AC
SPECIAL BIOLOGICAL AREAS (BOTANICAL & ZOOLOGICAL) 114,000 AC.

NETWORK OF CONNECTED "HOT SPOTS" OF BIODIVERSITY.
"CORE AREAS", THREATENED & ENDANGERED, RARE SPECIES.
BEAVER, AREAS, NOT RARE. PLENTY OF THIS ON & BEYOND FOREST.
WHERE? HOW CONNECTED & DISTRIBUTED ACROSS HABITATS?
OR THESE JUST HOT SPOTS?

INDIANA BAT RESTRICTIONS MANY. INDIVIDUAL RANGE 200 MI.
PESTICIDE USE AND BIOMAGNIFICATION FROM MOTHS TO BATS IS UNUSUALLY DIRECT
GYPSY MOTH & OTHER CONTROL MUST "DO NO HARM" TO DECLINING POPULATIONS.

DISBURSED RECREATIONS - AREA & OPPROTUNITY ARE HUGE. GOOD

FACILITIES 20 CAMPGROUNDS

8 " FOR GROUPS

1 " FOR HORSES

20 PICNIC AREAS

8 SWIM/BEACH AREAS

11 GROUP PICNIC SHELTERS

DISPURSED - 21 TRAIL-HEAD INFORMATION SITES - PARKING*

HIGH DENSITY - LAKE MOOMAW, BRANDYWINE, ETC.

15 OTHERS DISPURSED ACROSS THE FOREST.

EASY ACCESS. MOTORIZED. HIGH USE.**

YET, FIRE AND TIMBERING OK. NO NOT IN HIGH USE AREAS.

WIND ENERGY

SHENANDOAH MT. CREST - 46,500 AC WITHDRAWN

BECAUSE OF ENDANGERED COW KNOB SALAMANDER GOOD

SCENIC VIEW-SHED NATURAL APPEARANCE DEGRADED*

CUMULATIVE AFFECT OF BAT MORTALITY WITH ITS "WHITE NOSE CHALLENGE, AND SONG BIRD AND RAPTORS SINK'S ARE CONCERNS.

THESE ARE PROHIBITIVE CONCERNS ACROSS THE FOREST ON THESE SPECIAL PUBLIC LANDS WHERE STEWARDSHIP DEMANDS "CAUTION"

THOUGH SHENANDOAH MT. CREST WOULD HAVE NO TOWERS, AND NO TIMBERING, FIRE AND GAME FOOD PLOTS*** ARE OK NO

WIND DEVELOPEMENT "UNSUITABLE" IN WILDERNESS AREAS,

OR "STUDY AREAS". WHAT OF THEIR VIEWSHEDS?

REMOTE "BACK COUNTRY" AREAS? WHERE

IN INDIANA BAT PROTECTION AREAS? ROOST AREAS**** MAP TOTAL EXCLUSION AREAS * NATURE, PLEASE

1 W-48 = BATS

---

* DISPURSED OUTDOOR RECREATION - WILDERNESS GROUPS LIMITED TO 10.

REMOTE BACK COUNTRY 252,000 AC. EACH GENERALLY 2,500 AC.†

NO CUTS. NO GRAZING, BUT FIRE AND GAME PLOTS OK. NO

FIRE & GAME PLOTS NEGATE THE "VALUED NATURAL APPEARING CHARACTER, INTACT WITHOUT DIVIATIONS THAT ARE NOTICEABLE"

NO ROADS, OIL & GAS DEVELOPEMENT, AND PERHAPS MINERALS, PROHIBITED.

** HIGHLY VALUED IN CITIZEN POLL TAKEN ABOUT 2000 FOR G.W. & JEFF. N.F.

DRIVING FOR PLEASURE (BASED ON NATURAL APPEARING SCENERY) INVOLVED.

*** "WE" ALREADY STATED OUR NATIONAL FORESTS ARE NOT STATE GAME LANDS.

YOU SURELY RELATE ARTIFICIALLY HIGH DEER POPULATIONS WITH OUR BROWSE PROBLEM.

ADDITIONALLY GAME PLOTS ARE UNNATURAL APPEARING; ACCESS ROADS ARE ALSO, AND THEY NOT ONLY INCREASE FRAGMENTATION BUT EROSION.

**** NO CUT OR INSECTICIDES WITHIN ½ MI DURING ROOSTING SEASON; IF "ACTIVE" NO DISTURBANCE WITHIN 2 MI.

RECREATION RIVERS

NOT PRESERVED FOR "WILD OR SCENIC" STATUS
READILY ACCESSABLE BY ROAD OR RAIL.
SOME PRIVATE LAND
LANDS – NATURAL, TRADITIONAL MIXED
OUTSTANDING REMARKABLE SCENERY
WOULD IMPROVE SCENERY + WILDLIFE
FIRE SUPRESSED AS PUBLIC USE IS HIGH + SOME INFRASTRUCTURE BUT CAN BE USED.
CLEARCUTS "CLASSED UNSUITABLE", BUT OK
OIL + GAS + MINERALS MAY BE DEVELOPED, BUT WIND MAY NOT.

– FIRE IS NEVER OK ON SLOPES JUST ABOVE A RIVER WHERE RIPARIA PROTECTIONS APPLY

THE "SUMMARY" CONTAINS MUCH GOOD INFORMATION

PAGES 1, 53 ARE USEFUL.
THEY SUGGEST ISSUES, 8 STRONG ONES
WATER
RESTORING ECOSYSTEMS – FOREST + BEYOND
RESILIENCY – GLOBAL WARMING, OTHER
REMOTE SETTINGS OF HIGH SCENIC VALUE
SUSTAINABLE ACCESS.

54, 55 TERRESTRIAL BIODIVERSITY + DIVERSE MIX OF HABITS
OLD GROWTH. HELPFUL WIND GOOD

56 "DEVELOPED RECREATION" IS NOT A SIGNFICANT ISSUE." OK

57 WILDNESS VS MANAGEMENT FLEXABILITY. WELL DONE.
TIMBERING + FRAGMENTATION + THE MOSAIC. WELL DONE.

57 ATTEMPT TO BALANCE PUBLIC ISSUES THAT WERE IDENTIFIED.
AS OF MARCH 2010. WHAT ARE THESE?
ALTERNATIVES
B. "DESIRED FUTURE CONDITION. GOOD, EXCELLENT SUMMARY.
C – THIS IS THE WILD FOREST.
D – CALLS FOR MORE TIMBERING + ROADS.
E – WOULD CREATE THE MOSAIC, YET THERE WOULD BE LARGE BLOCKS WOULD BE UNDISTURBED. YET A GOAL IS TO IMPROVE SOIL + WATER CONDITIONS IN HIGH PRIORITY WATERSHEDS.

510 — F – EMPHASIZE RECREATION, VISUAL QUALITY, MORE ACCESS YET SOME REMOTE LARGE BLOCKS.

G – IS PREFERED. VARITY OF HABITATS BY TIMBERING, EVEN FIRE, YET LARGE UNDISTURBED BLOCKS AND WOULD IMPROVE SOIL + WATER IN PRIORITY WATERSHEDS.
THEY WOULD DECOMISSION SOME ROADS
SCENERY + RECREATION PROMOTED

COMMENT ALTERNATIVE G WAS ASSEMBLED BY THE MULTIDISCIPLINARY STAFF AFTER A REVIEW OF THE OTHERS. I WOULD HOPE THAT THEY WOULD AGAIN REVIEW THE OTHERS, THAT THEY HAD FOUND LACKING, AND COME UP WITH A NEW "G" OR A NEW PLAN USING THE NEW PLANNING RULE GUIDANCE. THE COMMENTS, HERE TOTALING 12 PAGES HAVE CONSISTENTLY ADVISED NO FIRE, AND NO CLEARCUT MOSAIC IN THIS FOREST TODAY. CITIZEN ATTITUDES AND VALUES WILL NOT PERMITT IT. A GOAL OF YOUR PLANNING IS TO BUILD TRUST AND REDUCE LITIGATION. YOU HAVE A CITIZEN POLL AND A WONDERFUL PLANNING RULE TO GUIDE YOU. MY PREFERED ALTERNATIVE IS NONE OF THE ABOVE.

"THE FOREST SUPERVISOR WILL REVIEW THE PLAN EVERY 5 YEARS... TO DETERMINE WEITHER CONSIDERATIONS OR DEMANDS OF THE PUBLIC HAVE CHANGED SIGNIFICANTLY. THIS IS GOOD. IT ALSO MEANS YOU MUST LISTEN TO MODERN CITIZEN VALUES, AND TWO, "GOOD SCIENCE" HAS RECENTLY REVIEALED MORE RECOVERY IS POSSIBLE BY EXCLUDING HYDROLOGICALLY DAMAGING CLEARCUTS AND FIRES.

THE MODERN "GOOD SCIENCE" ENABLES US TO DISCERN A VISION OF A TOP-DOWN RECOVERY OF DESTABALIZED STREAM CHANNELS IN LITTLE DISTURBED WATERSHEDS. THIS WOULD FIRST BE THROUGH BROOK TROUT REACHES. THEIR POPULATION RESPONSE TO IMPROVE HABITAT AND STABILITY WOULD RESULT IN FAMOUS RECREATIONAL FISHERIES THAT WOOLD BE OF SUCH VALUE THET WOULD NEVER AGAIN BE THREATENED BY MIS-MANAGEMENT (IT, LIKE A WARMING CLIMATE CAN BE A FOREST-WIDE STRESSOR.) MANY MULTIPLE USES CLUSTER AROUND BROOK TROUT. ROADS + CUTTING + FIRE THAT FRAGMENT LARGE BLOCKS DO NOT.

" RIPARIA INCLUDE INTERMITTANT STREAM CHANNELS THAT SHOW SIGNS OF SCOUR." "THE GOAL IN EPHEMERIAL (EVEN SMALLER) CHANNELS IS TO MAINTAIN CHANNEL STABILITY AND CONTROL FURTHER UP-SLOPE SEDIMENT" VERY GOOD.

ENCLOSED IS ENCLOSURE #2 DEALING WITH THE HYDROLOGICAL DAMAGE OF CLEARCUTS — AND THE PROMISE OF FAMOUS BROOK TROUT STREAMS.

THERE FOLLOWS SOME HOPEFULLY COMMENTS YOU WILL FIND USEFUL — WITHOUT TOO MUCH REDUNDANCE.

The Highlands Voice

US FOREST SERVICE – A NEW DIRECTION

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

By Don Gasper

Some time ago, Secretary of Agriculture Secretary Thomas Vilsack desribed a new direction for the US Forest Service. Don Gasper provides this brief of his remarks

"Restoration is a driving principle in forest policy." Problems confronting the Forest Service are many. One is firefighting costs which consume so much of the budget that forest management programs suffer. They have now obtained sufficient fire funding.

"The second problem is distrust between environmentalists, the US Forest Service, and the forest community. This has resulted in appeals and litigation. This has served as a useful back-stop against misplaced management decisions. Now the US Forest Service hopes to develop a shared vision based on collaboration in order to move forward. There's much to do {-} and quickly. Hopefully, less confrontation will be needed. now the US Forest Service charts the path forward by building trust among diverse stakeholders through collaboration and engagement....."

..."A new National Forest Plan is needed. . The courts struck down the rules of 2005 and 2008, The planning rule now under development integrates restoration, climate, resilience, watershed protection, wildlife conservation, vibrant local communities and collaboration in management. We all appreciate clean water and forests. The well-being of our forest and of our lives are inseparable."

Don Gasper notes the environmental community has, all along, attempted to engage the USFS to develop a shared vision, "a desired future condition" based on collaboration. We hope also to move forward into the 20/20 Vision that we have for the Monongahela National Forest.

CLEARCUTTING ON THE NATIONAL FOREST

By Don Gasper

This is a simplification to describe more fully the hydrological environmental impacts of just "clearcutting" and "selective cutting", and to recommend somewhat of a solution. Though roads will be referred to, this will be brief.

The National Forest new plan setting the stage for the next 20 years of logging relies more heavily on clearcuts and they could be twice as large. This paper is prepared because of the immediate impact of sediment on brook trout streams, wherein their eggs must spend the entire winter under the gravel and are easily smothered by the settling of sediments. Also many of the National Forest brook trout stream beds were found to have sediment fines at levels that would begin to reduce reproductive success. The New Plan still gives no special protection to native brook trout, though they are a "management indicator species" to be monitored.

Clearcutting effects do, of course, apply to all headwater streams, and sediment production does prevent the top-down promise of channel recovery and flood reduction that might be obvious to all at the end of the next 20 years in little-disturbed watersheds.

Clearcutting removes the canopy and its evapotranspiration which dries the soil. It takes 5 to 10 years for canopy re-establishment. Whether the patch is 1 acre or 40 acres (the N.F.'s new maximum) the same hydrological problems arise. The channel immediately below then must carry over twice as much annual flow than it has in the last 100 years, and channel adjustments then must be made. Peak flow increases are measurable when only 25% of a watershed is clearcut or when an additional 25% is clearcut. Peak flows cause bank and bottom scour, and even "head-cutting" where the channel enlarges itself upstream toward the ridge-tops.

This scour produces a sediment load that the channel must carry. Sometimes it is observed as a "sediment wave" that must work its way downstream causing gravel bars that increasingly deflects the flow into banks that generates even more sediment, and as banks collapse, they can even cause "tree topple". The widened stream is shallower and warmer, and its pools are filled. Food and over winter survival are reduced. The riparia, with its protected stream-side shade necessary for cool trout water, is undermined from within.

Secondly, a sediment load can so plug and raise a riffle that it effectively lowers the bank and then "out of bank" peak flows occur. These may scour a new channel generating a truckload of gravel every 10 feet - and this may go on for hundreds of feet. This is a catastrophic event.

Rather than being "attenuated", or lost in a larger channel, the impact of a small clearcut can cascade and magnify and influence the channel far off site below. Its effect may be considered lost

somewhere downstream. but there it may add to more subtle, little recognized forces, and break a bank at a weak point. Downstream the advantage of "desyncronization" of high flow deliveries are generally off-set by increasing hydrological abuse in the larger watershed, and there is no advantage as it all becomes even flashier and more flood prone.

These necessary hydrological consequences of clearcutting call to question if clearcutting is any longer a respectable forest practice. There are no "best management practices", other than canopy retention itself, that foresters have devised that address this at all. Lastly, "clear-felling" studies, wherein trees were simply cut and were not removed and there were no roads or disturbance, showed that without the functioning forest canopy, peak flows, channel scour and sediment increased. In fact, many studies show more sediment is produced from channel scour than from surface logging disturbance. They are, of course, additive.

In conventional logging some roads are necessary for clearcuts. These may be active haul roads only a year or two every 100 years - more likely, most, every 50 years. This is not clear to me, nor is the fact that they may over time reach everywhere, every patch. However it is clear that "selective cutting" to reach every tree generally results in ten percent of the watershed being permanently transformed into road surface that may be reentered every 20 years. Roads, themselves, are harmful to stream channels.

Roads superimpose a new drainage system upon the present one. Their compacted surface and their interception of slower sub-surface flow, contribute to rapid ditchflow that invariably results in higher peak flows. These are in addition to peaks due entirely to canopy removal. These peak flows, as described earlier, are hydrologically destructive of channel stability and integrity and reverse any small step toward channel recovery.

In some places today's forests need some cutting. They need some thinning and some "timber-stand improvement". The regrowth of this forest, the first we have ever seen, has been a haphazard, chaotic, struggle, we assume toward a beginning "climax" state at perhaps 200 years. The National Forests presently must have some harvest. An allowable quota is determined by political regional influence and the inherent sustainability and improvement of the forest as a resource. The New Plan calls for about the same amount of timber harvest as in the past. This could be responsibly accomplished by selective logging using helicopters.

E. I. S.

WE MIGHT WISH TO SEE YOUR "ANALYSIS OF MANAGEMENT SITUATION" WHICH YOU USE TO BEGIN YOUR PLAN.

TO YOUR "PROFILE" ADD THAT THE MONONGAHELA ADJOINS YOUR VA. FORESTS TO PROVIDE A HUGE "BLOCK" OF PUBLIC LAND. WHAT ADDED ENHANCEMENT DOES THIS BRING TO THE MID-ATLANTIC HIGHLANDS - AND THE EAST COAST.

PROFILE - 44 WILDFIRES IN THE G.W. & JEFFERSON TOGETHER YEARLY WITH CONTROL THEY AVERAGE 55 AC.
75% ARE HUMAN CAUSED
- 1,171 MI. OF PERENIAL STREAMS ON THE G.W.
700 MI. OF THESE ARE TROUT STREAMS.
- 30 COMMUNITIES USE WATER
- TRAILS = 1,100 MI.
- ONLY 16% OF MINERAL RIGHTS UNDER G.W.'s LAND IS PRIVATE.

NFRED "ADDRESSES CHANGED CONDITIONS & DIRECTION SINCE 1993.

THE PLAN SHOULD "PROVIDE CONSISTANT DIRECTION AT THE FOREST LEVEL THAT WILL ASSIST MANAGERS IN MAKING PROJECT DECISIONS AT A LOCAL LEVEL IN THE CONTEXT OF BROADER ECOLOGICAL AND SOCIAL CONSIDERATIONS."
THIS IS THE SAME AS THE MARVELOUS 2000 RULE AND THE NEW RULE.

BETTER DEFINATION OF "DESIRED FUTURE CONDITION & OBJECTIVES" NEEDED

THIS IS A CRITICAL FLAW IN THIS PLAN. IT DOES NOT REFLECT CITIZEN VALUES

"RECOGNIZATION OF FIRE AS AN ESSENTIAL ECOLOGICAL PROCESS"
THIS THEY CLAIM IS NEEDED TO REDUCE OBJECTIONS. WRONG
THEY WOULD INCORPORATE THE USE OF WILDFIRES FOR THEIR OBJECTIVES.
THE U.S.F.S. OBJECTIVES ARE WRONG. CITIZENS DO NOT WANT A MOSAIC.

CHANGES NEEDED - HIGH QUALITY WATER
RIPARIA PROTECTION
MULTIUSE & VARIOUS AREAS: TIMBER, ROADS, WILD, FIRE.
TIMBER SALE QUANTITY
ROAD ACCESS
SHOULD ADD HEMLOCK ADELGID & DIDYMO ALGAE, INVASIVE RESPONSE

THE PLAN ESSENTIALLY BEGINS WITH "THE DESIRED FUTURE CONDITION"
MULTIUSE PRESCRIPTION FOR EACH AREA
HOW DESIGNED, WHERE, WHY?
DETERMINE AREAS UNSUITABLE.

"VEGETATIVE MANAGEMENT IN THE APPALACHIAN MTS." GUIDANCE IN MAKING PLANS THAT JUSTIFIES FIRE IS WRONG
DOES NOT APPLY TO G.W. WE DO NOT GET TO SEE THE GUIDANCE.

1-8 IDENTIFY ISSUES, CONCERNS & OPPROTUNITIES.
FLOODING OF COMMUNITIES BELOW AND CLEARCUTS THAT CAUSE MORE HIGHER PEAK FLOW AND GRAVEL & RUBBLE BLOCKING CHANNELS FROM DESTAGALIZED HEADWATER TROUT STREAMS ON U.S. LAND. SHOULD BE AN ISSUE.

1-9 A GOOD, VALUABLE PAGE. (I WOULD CUT + PASTE IT HERE)

WATER, DEMAND FOR CLEAN WATER SHOULD INCLUDE TROUT POTENTIAL.

THIS POTENTIAL ISSUE WAS DISMISSED AS INSIGNIFICANT. NO TROUT POTENTIAL AND THE MANY COMPATABLE MULTI-USES THAT CLUSTER ABOUT IT SHOULD BE A DRIVING "ISSUE".

ACID RAIN CAN NOT BE "INSIGNIFICANT". G.W.'S PUREST TROUT STREAMS ARE ACIDIFYING. JOIN THE MONONGAHELA WHERE 1/4 OF ITS TROUT STREAMS HAVE BECOME BARREN. SHENANDOAH N.P. IS SEEKING A REGIONAL SOLUTION.

— SCENERY CAN NOT BE DISMISSED AS "INSIGNIFICANT".

IT IS A KEY RESOURCE, BECOMMING MORE VALUABLE AS IT BECOMES RARER. MUCH OF THE HIGH USE THE G.W. GETS IS DUE TO PLEASING SCENERY. THE PATCHY MOSAIC IS OBJECTIONAL AND INCOMPATABLE WITH NATURAL VIEWS.

— EDUCATION SHOULD NOT BE "OUTSIDE OF THE SCOPE OF THE PLAN".

- GRAZING ON ONLY 250 AC.

IN DEVELOPING PLAN "ALTERNATIVES" THE LEADERSHIP TEAM HAD NOT A CLIMBER OF RESTORING WATERSHEDS, STREAM CHANNELS & TROUT POTENTIAL. THEY PRODUCED AN UNWORKABLE FLAWED PLAN. CITIZENS TODAY WILL NOT ALLOW IT.

"BENCHMARK ANALYSIS - THE ANALYSIS OF THE MANAGEMENT SITUATION"

WE SHOULD SEE THIS.

"NO MANAGEMENT OF THE FOREST, BUT NATURAL FORCES DOMINATE WITHOUT HUMAN INTERVENTION" - IS A USEFUL STATEMENT BUT MANY "NATURAL" PROCESSES TODAY ARE GONE OR ANEMIC & NOT FUNCTIONING. WHAT WE SEE IS AN INCREDIBLY DAMAGED ECOSYSTEM - THAT NEEDS SOME CAUTIOUS, INTELLIGENT TINKERING WITH DOABLE RECOVERY IN MIND. "NO MGT." CAN MEAN MIS-MANAGEMENT.

THIS "NO MANAGEMENT," WAS NOT CONSIDERED IN DETAIL.

ALTERNATIVE C HAS LITTLE MANAGEMENT, AND IS DETAILED.

RIPARIA OR STREAMSIDE MANAGEMENT ZONE

NOW 66' + 33' FOR INTERMITTANT

YET LIKE JEFFERSON 100' + 50'. WHICH IS IT?

WHAT OF EPHEMERALS?

FIRE - PRESCRIBED FIRE NOW 3000 TO 4666 AC/YR.

PLAN - THE G.W. HAS 9 ECOLOGICAL SYSTEMS. SHOULD THERE BE 9 PLANS?

SHOULD THERE BE 9 DESIRED FUTURE CONDITIONS? NO, 1 PLAN.

ALTERNATIVE 3 USES NEW, GOOD SCIENCE AND CONSIDERS NEW POLICY

- PERHAPS NEW DIRECTION GOOD, WHAT IS NEEDED.

RESTORE ACID IMPACTED STREAMS - MINE ACID & ACID RAIN - LIME.

MOST POTENTIAL WILDERNESS - ACTIVE MANAGEMENT

WOULD CONTINUE. NO.

LOG 1800 - 3000 AC/YR. → SUITABLE 478,400 AC.

NO WIND DEVELOPMENT ALLOWED ON FOREST IN:

WILDERNESS, RECOMMENDED WILDERNESS, NATURAL SCENIC AREAS, SPECIAL BIOLOGICAL AREAS, INDIANA BAT PROTECTED AREAS, APPALACHIAN TRAIL CORRIDOR, AND REMOTE BACK COUNTRY. GOOD*

PRESCRIBED FIRE 12,000 TO 20,000 AC/YR.

PAGE 2-8 ALTERNATE 3 READS GOOD. MUCH TO BE DESIRED (D.F.C.)

NO LOGGING. (YET BY LAW MUST BE ACHIEVED)

NO CUT IN OLD GROWTH. PROTECT WOOD TURTLE.

NO WIND DEVELOPMENT

NO OIL + GAS

DECOMMISSION ROADS EMPHASIZED TO REDUCE SEDIMENT.

LESS FRAGMENTATION

FIRE VERY LIMITED, BUT WOULD ALLOW WILDFIRES TO BURN

WILDFIRES ARE 75% MAN CAUSED AND SHOULD BE CONTROLLED.

ALTERNATIVE D MUCH LOGGING > LESS WILDERNESS. ~~TROUT POTENTIAL~~

E, CLEARCUTS TO GET A PATCHY MOSAIC → FIRE NO

NO MARCELLUS GAS DEVELOPMENT

NO WIND DEVELOPMENT

MUCH FIRE, 20,000 AC/YR NO

YET WATER IS A PRIORITY FOR RESTORATION YES

THIS MAY MEAN A "TOP DOWN" RECOVERY

AND THEY WOULD LIME ACID IMPARED WATER, YES

F. ATRACT VISITORS FROM AFAR

RECREATIONAL OPPORTUNITY, SCENERY AND WILDERNESS,

BIKING, HUNT + FISH. FAMOUS TROUT STREAMS.

TRAIL DEVELOPMENT + TRAIL HEAD PARKING + INFO.

START GUIDED TRAIL TRIPS, INTERPRATION,

ACCESS TO WATER, A.T.V. + HORSE USE,

"HABITAT FOR EARLY SUCCESSIONAL SPECIES WOULD

WOULD BE MAINTAINED IN A MANNOR THAT WOULD

NOT BE NOTICEABLE TO MOST VISITORS" NOW? UGLY

PAGE 2-14 READS GOOD INFORMATIVE

"HIGH SCENIC QUALITY WOULD BE A MAJOR EMPHASIS."

THIS LAST QUOTE IS GREAT, YOUR CITIZEN VALUES

POLL FINDS "NATURAL APPEARANCE" THEIR HIGHEST VALUE,

HIDING CLEARCUTS ACKNOWLEDGES THAT THEY ARE UGLY.

CITIZENS THINK A GREAT MISFORTUNE HAS OCCURRED,

THEY ARE DISTRESSED. THIS IS NOT "CARING FOR THE LAND."

FIRE 1200 TO 20,000 AC/YR. NO

THIS → CLEARCUTS CONFLICT WITH "HIGH SCENIC VALUE."

G. = PREFERED, MORE FIRE (12,000 TO 20,000 AC) TO GET

A MOSAIC AND BIODIVERSITY, GAME EMPHASIZED

WITH GRASS + SHRUBS BY INCREASING STRUCTURAL DIVERSITY.

SOME WILDERNESS + BACK COUNTRY.

* SOME BATS ARE KILLED, NOW WITH "WHITE NOSE, WHAT CAN CUMULATIVE TAKE BE?

YET IMPROVE SOIL + WATER IN HIGH PRIORITY WATERSHEDS
HOW PRIORITIZED? HOW MANY? NEED MAP.
YET ROAD CLOSURE + MORE TO ATTRACT VISITORS FROM AFAR.
YET HIGH SCENERY - WITH CLEAR CUTS + FIRE
YET NO NEW DEVELOPED RECREATION SITES
THIS ALTERNATIVE, G, THE PREFERRED IS A MESS - OF CONTRADICTIONS

DO PLANT WHITE PINE TO REPLACE HEMLOCK

PAGES WITH IMPORTANT INFORMATION
2-26
2-28
2-31
2-32

"9 ECOLOGICAL SYSTEMS"[x] "ALL USE FIRE AS A TOOL FOR ACHIEVING RESOURCE MANAGEMENT DESIRED CONDITIONS" BAD
THIS IS NOT "THE DESIRED FUTURE CONDITIONS" OF CITIZENS.

ALTERNATIVES B, C, D, E, F + G - "ALL MAINTAIN OR RESTORE ECOLOGICAL CONDITIONS". BUT ALL MIS MANAGED.
ALL ARE UNNATURAL IN APPEARANCE AND INAPPROPRIATE IN A GREAT FOREST STANDING UNIQUE IN A SEA OF EDGE AND SCRUB/SUBURB

- "RIPARIAN FORESTS ARE PROTECTED + RESTORED TO MODERATE CHANGES IN STREAM TEMPERATURES, MAINTAIN STREAMBANK STABILITY, AND PROVIDE IN-STREAM HABITAT." SOUNDS GOOD.[xx]

"FLOOD AND WILDFIRE RISKS ARE REDUCED IN VULNERABLE WATERSHEDS TO PREVENT INCREASED SURFACE EROSION AND MASS WASTING LEADING TO AGGRADATION (FILLING) OF CHANNELS"[xxx]

"INCREASE RIPARIAN BUFFERS + STANDARDS TO PROTECT EPHEMERAL STREAMS" THIS, LAST IS VITAL TO A "TOP-DOWN" HYDROLOGICAL RECOVERY. YES, TINY CHANNELS
SOUNDS GOOD, BUT THEY WILL NOT BE PROTECTED OR RESTORED, BUT WOULD CONTINUE TO BE DESTABILIZED BELOW WATERSHEDS SO MANAGED.
RIPARIAN BANKS CAN BE ERODED BY SCOURING INCREASED PEAK FLOWS FROM WITHER - IF MORE CLEARCUTS ABOVE.

- "SOILS THAT ARE HIGHLY SENSITIVE TO ACID RAIN + NUTRIENT LOSS ARE IDENTIFIED, WHOLE TREE HARVESTING IS NOT ALLOWED IN THOSE AREAS". DO NOT REMOVE TRUNKS EITHER, BUT REMOVE FROM TIMBER BASE. HALF THE NUTRIENTS ARE IN THE TRUNKS (250 LBS/AC OF CALCIUM) "PLANT AVAILABLE" CALCIUM DOES NOT EQUAL THIS.

PAGES
3-8 FLOODS - SHOULD BE AN "ISSUE"
3-9 CAVES PROTECT ALL, 15? WITH NO DISTURBANCE ZONE
3-10 TROUT + GLOBAL WARMING - "AN 8°F RISE IN AVERAGE AIR TEMPERATURE WOULD ELIMINATE 50% OF BROOK TROUT".
3-13 "THERE IS INCREASED DEMAND FOR STRUCTUAL STREAM BANK PROTECTION."
THIS SO COSTLY, BUT NEEDED THAT IT SHOULD BE AN "ISSUE"

[x] 9 MAJOR FOREST COMMUNITIES.
[xx] ADD TO YOUR LIST OF STRESSORS: WARMING TROUT STREAMS, ACID RAIN, DEER BROWSE (THEIR NUMBERS AND STATE GAME EFFORTS, AND MIS MANAGEMENT)
[xxx] WHICH ONES? WHY NOT ALL? SOUNDS GOOD. "FILLING" WITH SEDIMENT

3-22 READS GOOD "SOIL PRODUCTIVITY CAN BE REDUCED BY 15%"
THIS IS EVIDENTALLY ONLY MUDDY WATER LOSS FROM DISTURBANCE
IS THIS A ONE-TIME LOSS, OR A SUMMED LOSS? AREA SIZE? *
THE USFS. REGION THAT THINKS THIS IS OK, DID NOT CONSIDER INFERTILE SOIL AND ACID RAIN LEACHING OF NUTRIENT
IF CLEARIFIED IT MIGHT BE HELPFUL. CALCIUM STATUS, ETC.
IT SEEMS TO OK A "PERMINANT IMPAIRMENT" OF THE LAND. NO

PERENIAL STREAMS AT HIGHEST ELEVATIONS OVER NON-CARBONATE GEOLOGY WERE HIGHLY SENSITIVE TO ACID DEPOSITION. GOOD, AN ISSUE.
GOAL - REDUCING VULNERABILITY/RESTORING RESILIENCY

3-23 2. PROVIDING FOR WATERSHED HEALTH. GOOD
4. REDUCING ECOSYSTEM STRESS GOOD
SHOULD BE REFERENCED TO SUSTAINABILITY
MIS-MANAGEMENT (CLEARCUTS + FIRE) - IS A STRESS.

3-28 "SOILS INTERACTING WITH GEOLOGY, WATER + VEGETATION PLAY A CRITICAL ROLE IN DETERMINING THE HEALTH". GOOD
AND THE RATE OF EROSION AND DEPOSITION IN CHANNELS AND HUMAN DISTURBANCE.
"SOILS COULD BE AFFECTED BY ACID RAIN, ROADS, TRAILS, STEEP SLOPES".

3-32 READS GOOD. NUTRIENT CYCLING. GOOD
AIR. OHIO VALLEY + T.V.A. OZONE LEVELS HAVE DECLINED 68% IN VA. + W. VA. SINCE 2000 AND 76% FROM 1990.
NO_x EMISSIONS DECREASED.

3-34 SO_2 DEPOSITION WAS ALMOST CUT IN HALF
VISUAL RANGE IN SHENANDOAH N.P. IMPROVED TO 47 MI. IN 2008.

3-35 FIRE CAUSES SMOKE. 70% OF PARTICULATE EMISSION FROM FIRE ARE "FINE PARTICLES". NO_x + V.O.C. ARE ALSO RELEASED. CARBON MONOXIDE, CO_2, NO_x + HYDROCARBONS ALSO. SMALL PARTICLES, P.M. 2.5, AGGRIVATES RESPIRATION.
CAN BURN ONLY ON DAYS "THAT MAXIMIZE SMOKE DISPERSION"
G.W. HAS BURNED 6,000 A.C. SINCE 2006, WITH 406 TONS OF P.M. 2.5.
(B, D, E, F, + G WOULD INCREASE THIS 100 TO 250%)
IN 2007 9,599 AC. WERE BURNED & MADE 670 TONS OF P.M. 2.5.

* "LONGTERM PRODUCTIVITY MUST BE MAINTAINED ON AT LEAST 85% OF AN ACTIVE AREA". HOW ARE AREAS DETERMINED? SPACE OR TIME?

3-40 "A SMALL MOUNTAIN WATERSHED ON THE G.W. CAN PRODUCE FLOOD PEAKS APPROACHING 1000 CU. FT./SEC/SQ. MI. DOWNSTREAM IT MAY BE 50."

SEDIMENT LOAD CAN VARY

THEY ASSUME "CONTINUED NATURAL RECOVERY OF WATERSHED CONDITIONS ACROSS THE FOREST" NO

STILL DISTABALIZED FROM FIRST CUT, WITH GREATER STORMS EXPECTED FROM GLOBAL WARMING. BE REALISTIC

CHANNELS CAN NOT RECOVER WITH CANOPY LOSS DUE TO CLEARCUTS.

JUST ENOUGH CLEARCUTS, HERE & THERE TO CONTINUE DESTABILIZATION.

THEY HAVE "A STRATEGY THAT WOULD REDUCE SEDIMENT SOURCES.

- 20 ECOLOGICAL SYSTEMS, IN 9 MAJOR COMMUNITIES
- SOME OLD GROWTH IS CUT (<1000 AC. IN LAST 18 YEARS). MORE GROWN THAN CUT.

3-149 OF THE STREAMS IN THE NON-LIMESTONE GEOLOGIES: 50% ARE NON-ACIDIC, 24% HAD ACID EPISODES, AND 20% WERE EXTREMELY SENSITIVE, ONLY 6% WERE CONTINUALLY TOO ACID FOR FISH.

INFERTILE STREAMS ARE THOSE WITH ALKALINITY <20 PPM

VA. LIMES 9 STREAMS

SAINT MARY'S RIVER LIMING LASTED 3YRS. REALLY 5+ YRS

3-150
3-154 BROOK TROUT
MACROINVERT STREAM BOTTOM HEALTH MONITORING

3-156 SEDIMENT
CULVERTS, AND SUCH, CAN PREVENT UPSTREAM MOVEMENT.
LAKES
RIPARIA — ALTERNATIVE — PERENNIAL, INTERMITTANT, EPHEMERIAL

A	66'+	33'+	0
B	100'	50'	25
C	100	50	25
D	66'+	33'+	0
E	100	50	25
F	100	50	25
G	100	50	25

MUST BE 100', 50' + 25' HORIZONTAL BEET ON EACH SIDE.

ALTERNATIVE C (NATURAL) NO FISH HABITAT IMPROVEMENT (POOL CREATION, BANK EROSION PREVENTION, ETC)

NO LIMING OF ACID STREAMS - BAD

3-159 RIPARIA CAN BE UNDERMINED FROM WITHIN BY INCREASED SEDIMENT LOAD. GOOD PAGE, BUT YOU ASSUME "RECOVERY BY THE CONTINUED NATURAL RECOVERY OF WATERSHED CONDITIONS" THIS IS WISHFUL THINKING. CLEARCUTS & FIRES WILL REVERSE RECOVERY.

STRESSORS: SEDIMENT, LACK OF STREAM COMPLEXITY (POOLS), TEMPERATURES TOO WARM FOR TROUT, ACID RAIN, BARRIER TO UPSTREAM FISH MOVEMENT. SOME BARRIERS ARE USEFUL TO PREVENT "ROUGH FISH" REENTRY.

TO THIS LIST I MUST ADD MIS-MANAGEMENT (CLEARCUTS & FIRE) AND INFERTILE SOILS & STREAMS & DEER.

"IN ACTUALITY ALL SPECIES ARE SUSCEPTABLE TO LOW pH LEVELS."
TRUE, BUT NATIVE BROOK TROUT ARE THE MOST ACID TOLLERANT FISH, AND DO WELL AS COMPEDITORS DIE.

"HEADWATER STREAMS ARE USUALLY CLOSER TO FOREST MANAGEMENT ACTIVITIES." TRUE, AND THESE DISTURBANCES CAN REVERSE A "TOP-DOWN HYDROLOGICAL RECOVERY OF STREAM CHANNELS - FIRST THROUGH TROUT HABITAT, FINALLY REDUCING FLOODING.

YOU DO ADDRESS "DIDYMO", AND WELL.

FIRE - "FORESTS HAVE BEEN CONTINUALLY CHANGING, DIVERSITY OF THE FOREST IS NECESSARY TO REACT SUCCESSFULLY TO CHANGE. ECOSYSTEMS FOR THOUSANDS OF YEARS DEVELOPED WITH CLIMACTIC & HUMAN CAUSED FIRE. THE DEBATE IS WEITHER HUMAN IGNITION SHOULD BE CONSIDERED WHEN DETERMINING THE "NATURAL" STATE OF ECOSYSTEMS."

INDIANS SET FIRES

SEDIMENT CORES INDICATE OAK BECAME DOMINATE 7,000 YEARS AGO AND MADE UP 50% OF FOREST. (50% OF POLLEN RECORD); CONCURRENT WITH MORE CHARCOAL LAYERS.

ALL TRUE BUT SELDOME AND ONLY OVER SMALL AREAS WAS IN A PATCH-WORK MOSAIC STATE OF STANDS OF DIFFERENT SIZES. RATHER IT WAS A CLIMAX FOREST, ALL MATURE WITH 2 ACRE TREE-FALL GAPS OF ITS OLDEST TREES THAT ENABLED EVEN OAK TO PERSIST.

LARGE WOODY DEBRIS OR DOWNED LOGS IN STREAM CHANNELS ARE THOUGHT TO BE MUCH LESS IN TODAYS CHANNELS BECAUSE OF THE FIRST CLEARCUT 100 YEARS AGO ELIMINATED THE TREES THAT OTHERWISE WOULD HAVE FALLEN IN. CHANNEL STABILITY IS ATTRIBUTED TO STEADY RECRUITMENT OF LARGE LOGS.
BIG ROCK MAY BE MORE IMPORTANT IN SOME REACHES.
LOOSE LOGS CAN CAUSE JAMS & CAUSE BLOCKAGE & NEW CHANNEL CUTTING.

3-61 GOOD PAGE - GET HEADWATER RIGHT AND A "TOP-DOWN" RECOVERY MAY FOLLOW

7 MILL PEOPLE LIVE WITHIN THE "MARKET AREA" OF THE G.W.
7.67 VISITORS TO G.W. IN 2006
FISHING USE IN 2010, 189,600; IN 2020, 200,000; IN 2050, 253,000
BUT IF BROOK TROUT POTENTIAL WERE REALIZED WITH AGRESSIVE FISH MANAGEMENT USING TROUT UNLIMITED'S "BRING BACK THE BROOKIE/JOINT VENTURE" PLAN, AND A FISH TOXICANT TO REMOVE WARMER WATER COMPETING MINNOWS ABOVE BARRIERS TO PREVENT REENTRY, AND RESTORE AND CONNECT BROOK TROUT ONLY HEADWATERS.

"SEMI-PRIMATIVE" MUST BE 1/2 MI. FROM OPEN ROAD + 2500 AC. SIZE.
19% OF G.W.

STOCKED CATCHABLE-SIZED TROUT STREAMS ON G.W. 67 MI.

WIND TURBINE DEVELOPMENT CONFLICTS DIRECTLY WITH RIDGE TRAIL USERS.

"WILD + SCENIC RIVER" 12 STREAMS FOR 253 MI. WILL PRESERVE QUALITY.

FOREST HISTORY 8000-1000 B.C. = ARCHAIC PERIOD
1000 BC, SEDENTARY VILLAGES ALONG RIVERS.
HUNTER GATHERS
1000 B.C. TO 1650 A.D. GARDENING
CORN, BEANS, SQUASH
MORE SEDENTARY, BUT RANGED THROUGH MOUNTAINS.

G.W. HAS 6 WILDERNESS AREAS = 43,000 AC., 4% OF G.W.
37 POTENTIAL WILDERNESS AREAS = 372,631 AC TOTAL
24 INVENTORIED ROADLESS AREAS TOTALING 242,278 AC.
96% ARE PROTECTED AND SHOULD REMAIN ROADLESS*

BICYCLES CAN BE USED ON CLOSED ROADS EXCEPT IN WILDERNESS. GOOD

"IN WILDNESS AREAS WHERE THE ATTRIBUTE OF NATURALNESS IS AN ESSENTIAL VALUE "WILDLIFE OPENINGS" WOULD NO LONGER BE MAINTAINED" GOOD. I WANT NONE ANYWHERE FOR THIS SAME REASON.

POTENTIAL WILDERNESS AREAS - THEIR "CHARACTER MUST BE PRESERVED"
YET YOU INDICATE THAT YOU CAN DO MOST ANY THING. NOT SO!
THAT ALTERNATIVE G (YOUR PREFERRED) PRESERVES THEM.
IS THIS A THREAT TO GET US REVIEWING CITIZENS TO ACCEPT G - OTHERWISE?
OTHERWISE, YOU WOULD BE DESTROY ITS CHARACTER, DISQUALIFYING IT.

"INVENTORIED ROADLESS AREAS - 95% CLASSED UNSUITABLE FOR TIMBER.
88% " " " ROADS.
GOOD, BUT NOW "REINSTATED". SHOULD BE 100% PROTECTED FROM NEW ROADS.

3-249 WIND - WIND TOWER GENERATORS WOULD BE ON CRESTS IN ALTERNATIVE D.
LITTLE ALLEGHENY, OLIVER, ELLIOTT, CRAWFORD, N. MASSOMATUTIN,
NO! SCENIC VALUES ARE DEGRADED.

SCENIC = 80% CLOSED CANOPY,
THE "W. VA. HIGHLANDS CONSERVANCY" WANTS NO DISTURBANCE ABOVE 4000'

"THE STEEP TO ROLLING RIDGES + VALLEYS CHARACTERISTIC OF THIS FOREST ARE COVERED WITH AN ALMOST CONTINUOUS CANOPY OF SOFT TO MEDIUM TEXTURED ROUNDED TREE FORMS CONVEYING A NATURAL APPEARING LANDSCAPE CHARACTER" GOOD GOOD GOOD! RARE + GETTING MORE SO.
THIS IS THE FOREST ATTRIBUTE MOST HIGHLY VALUED IN YOUR CITIZEN POLL AND MY (OUR) DESIRED FUTURE CONDITION.

* ROADLESS RULE RECENTLY REINSTATED, AND MUST BE INTERGRATED WITH YOUR PLAN. IS IT? FULLY? HAVE ATTRIBUTES AND AREA BEEN LOST?

DISEASE ETC. "CAUSES VISABLE PATCHES OF DEAD TREES AND ISOLATED OPENINGS IN THE FOREST CANOPY". THOUGH VISUALLY DISTRESSFUL, AND RAISES DOUBTS ABOUT FOREST HEALTH AND THEN ABOUT YOUR COMPENTLY "CARING FOR THE LAND", YOU ASSUME THIS IS BAD. IT MAY BE EVEN AN INVASIVE BUT IT MIMICS "NATURAL" DYNAMICS. IT CREATES OPENINGS FOR OAKS.

SCENIC – 1,000,000 ACRES CLASSIFIED AS "NATURAL APPEARING". REALLY? HISTORICALLY "OPEN WOODLANDS" OCCUPIED ON THE G.W. NO, THIS WAS ABOUT GEO. WASHINGTON'S TIME – ONLY A MOMENT IN TIME. BEFORE WAS A "CLIMAX FOREST" WITH 200-300 YEAR OLD BIG TREES, SOME LARGE RARE FIRES, AND 2 AC. TREE-FALL GAPS. IT SELDOME HAS MUCH OF A "MOSAIC", FOR LONG, ANYWHERE. THE MOSAIC IS NOT NATURAL.

THEN CAME LOGGING; NOW REGROWTH.

TODAYS FOREST VISUALLY RATES. VERY HIGH — 4%
3-252 HIGH — 32%
MEDIUM — 19%
LOW — 44%

THIS MAY BE OVERLY CRITICAL, AND HOPEFULLY IT LOOKS BETTER THIS IS NOT OUR "DESIRED FUTURE CONDITION"

NATURAL PROCESSES CAN, AS WELL AS RECOVERY EFFORTS CAN ELIMINATE SCARS AND RESTORE VAST VIEWS OF CONTINUOUS CANOPY. GOOD CLEARCUTS, THOUGH HIDDEN, IRREGULARLY SHAPED, FEATHERED AT EDGES, HAVE THE GREATEST VISUAL CONTRAST.
SINGLETREE AND GROUP SELECTION CUTS ARE LESS NOTICEABLE, "SHORT LIVED" VISUAL IMPACT. IN 20 YEARS NO CONTRAST NOTED.
ALTERNATIVE C HAS NO CLEARCUTS. VISUALLY + HYDROLOGICALLY GOOD.

THE "MINIMUM NECESSARY ROAD" STUDY UNDERWAY." IT SHOULD BE INTEGRATED WITH THIS PLAN. THE NEEDED ROADS FOR RECREATION ACCESS AND ULTIMATE TIMBER ACCESS. ROAD STANDARDS. CLOSURE. INHOLDINGS. DO THIS FIRST. CHECK YOUR CITIZEN ATTITUDES POOL FIRST THEN PLAN, BUT USE THE NEW GUIDANCE OF RESTORATION FROM THE CHIEF'S OFFICE.

MOST G.W. USERS ARE WITHIN 75 MI, 1½ HR. DRIVE OF THE G.W.

"PUBLIC MEETINGS HOWEVER TYPICALLY REPRESENT ONLY A PORTION OF THE PUBLIC'S INTERESTS, AND DO NOT ALWAYS REPRESENT THOSE WHO DO NOT, OR CAN NOT ATTEND MEETINGS" TRUE, THAT IS WHY YOUR POLL IS SO GOOD.*

* AND WHY THE MONONGAHELA SO BADLY NEEDED ONE.

SPENDING FOR DAY TRIPS FOR 1 PERSON/DAY = $55
OVERNIGHT = $75

COUNTY PAYMENTS FROM G.W. NEARBY – ABOUT:

HARDY CO. W.VA. GETS PAYMENT IN LIEU OF TAXES $180,000
= 25% OF FOREST PRODUCTS $160,000

PENDLETON CO. W.VA. — $205,000 AND $287,000

VA. COUNTIES GET – $24,000,000 AND $1,100,000

TIMBER SUITABLE FOR HARVEST = 910,000 AC.
ANNUAL HARVEST = 10,000 AC.

SPRUCE FORESTS BURN AT 500 TO 1000 YR INTERVALS.

ACID RAIN THAT IS OVER 2X THE INTENSITY OF THAT MEASURED AT LOWER STATIONS. IT HAS LEACHED SO MUCH NUTRIENTS OVER 50 YEARS FROM ALREADY INFERTILE GEOLOGIES, THAT THERE IS A CONCERN ABOUT ITS SURVIVABILITY AS IT GROWS LOOKING MORE NUTRIENTS IN ITS OWN BIOMASS.

SPRUCE FORESTS MAY BECOME UNTHRIFTY AND CRASH.

YOUR "DESIRED FUTURE CONDITION" IS A MIX OF CLOSED CANOPY, INTERMITTANT CANOPY AND OPEN CANOPY – A DIVERSITY OF TREE GROWTH (AGES) FROM REGENERATION TO OLD GROWTH – A STABLE MIX OF ECOLOGICAL CONDITIONS ACROSS THE LANDSCAPE OVER TIME." "WATERSHEDS ARE RESILIENT WITH INTACT HYDROLOGIC FUNCTION, CHANNEL MAINTENCE AND AQUATIC HABITS." "SOILS HAVE ADEQUIRED ADEQUATE PHYSICAL, BIOLOGICAL & CHEMICAL PROPERTIES."

THIS IS NOT THE CITIZEN'S D.F.C. WE WANT THE UNBROKEN CANOPY OF A WILD FOREST. THIS OPPORTUNITY FOR A GREAT FOREST STANDING AMID A MIX OF LESSER FORESTS, FIELDS, EDGE IS THE DESIRE OF MOST CITIZENS TODAY.

STREAM CHANNELS ARE STILL DESTABALIZED AND WILL NOT RECOVER BELOW CLEARCUTS.

SOILS WITH LIMITED NUTRIENTS, LEACHED FURTHER BY ACID RAIN WILL NOT RECOVER.

FIRE IS BAD. TIMBER STAND IMPROVEMENT WITH SELECTIVE HARVEST BY HELICOPTER IS OK, IF OBJECTIVE IS FOREST HEALTH.

YOUR CITIZEN ATTITUDE POLL WAS IN 2002 ON G.W. & JEFF., WITHIN 75 MI. OF EACH FOREST OF 400+ RANDOM CITIZENS OVER 16 YEARS, BY PHONE SURVEYS – MANAGED & REPORTED BY KEN CARDELL.*

* I'VE ENCLOSED MY REPORT OF IT.

EASTERN WILDERNESS ACT OF 1975 FOUND "AN URGENT NEED TO DESIGNATE & PRESERVE AREAS FOR ADDITION TO WILDERNESS_ AND SIMILAR AREAS IN THE EASTERN U.S. BE PROMPTLY DESIGNATED AS WILDERNESS".

WILDERNESS SHOULD BE CHALLANGEING PHYSICALLY AND MENTALLY, A PLACE FOR STUDY, INSPIRATION & SOLITUDE, AND FOR PRIMITIVE RECREATION.

STREAM GEOLOGY & INFERTILITY

20% OF HEADWATERS ARE IN SANDSTONE & QUARTZITE AT HIGH ELEVATION.
28% OF HEADWATERS ARE IN SHALE & SANDSTONE/QUARTZITE,
THESE ARE AT LOWER ELEVATION.

G 8, 9 & 10 GOOD IMPORTANT PAGES

RIPARIA MAY BE LOGGED IN THE 1993 PLAN.

20% BASAL AREA OF TREES CAN BE REMOVED ALONG PERENNIAL STREAMS,
50% " " " INTERMITTANT "
NO PROTECTION OF EPHEMERIAL STREAMS.
NOW 50% CAN BE REMOVED FROM EPHEMERIAL STREAMS.
THIS SHOULD BE MADE CLEAR, AND
THERE SHOULD BE ALMOST NO TREE REMOVAL OR DISTURBANCE WITHIN THE RIPARIA.

G-29 PERTINATE

CAN REMOVE LARGE WOODY DEBRIS SMALLER THAN 4' LONG AND LESS THAN 4" AT THE SMALL END. GOOD, THESE CAN BLOCK FLOW.

LIMING IN ST. MARYS WILDERNES REDUCED ALUMINUM RANGE

ORIGIONAL - 39.3 - 17 ppb.
POST-LIMING 21.3 - 18. ppb.
TOTAL ALUMINUM OF 130 g/l CAN BE HAZARDOUS
SOLUBILITY OF ALUMINUM INCREASES EXPONENTIALLY AS pH FALLS, BELOW 5.6, WITH MAXIMUM TOXICITY OF ABOUT pH 5.0
"WHEN ALKALINITY FALLS BELOW 2 PPM THE pH CAN CHANGE EASILY".

STREAMS ON THE MONONGAHELA ABOVE 2000' ARE COOL ENOUGH TO SUSTAIN TROUT ~~IF~~ A YEAR ROUND. (OWEN)
THERE ARE 2005 5TH LEVEL HUC's ON G.W.
BROOK TROUT POTENTIAL HABITAT ON G.W. 1,119.9 MI.
SENSITIVE TO ACID RAIN, SEDIMENT, TEMPERATURE, PASSAGE & COMPLEXITY.

FINAL NOTE

WHAT IS THE EXTENT OF PUBLIC ACCESS (NECESSARY ROADS) & THEIR NATURE?
" " OF YOUR LOGGING ROADS, WHERE, WHY? HELICOPTER LOGGING?
INTEGRATE SQUIRREL.
I PICK NO ALTERNATIVE, BUT WANT A NEW PLAN BASED ON YOUR NEW RULE.

END

Comments on Aspects of the U. S. Forestry Service's Plan for the George Washington Forest

Edward R. Long, Ph. D. - physics
140 New Hope and Crimora Road
Waynesboro, Va
071811

ASPECT 1

George Washington National Forest Plan and Draft Environmental Impact Statement

On Page 3-15 of the Plan:

- **There has not been any drilling in the Marcellus formation on the Forest or surrounding area.**

- **Horizontal drilling and the associated hydrofracturing of the Marcellus shale formation may impact water quality.**

- **Given the questionable nature of the development potential on the Forest, along with the high level of concern for water quality, the Plan does not allow horizontal drilling.**

Hydraulic Fracturing in Virginia and the Marcellus Shale Formation

- **1,800 Virginia wells have used Hydraulic Fracking in shale, sandstone and limestone formations since the early to mid-1950's**

- **There have been no documented instances of surface or groundwater degradation from Hydraulic Fracking in Virginia**

Virginia Department of Mines Minerals and Energy
Division of Gas and Oil
http://www.dmme.virginia.gov/DGO/documents/HydraulicFracturing.shtml

The 249 potential wells in all of Virginia spoken of in the Plan could use as little as 3.2 % of the water consumed by well users in just Augusta County.

Shale Gas
Applying Technology to Solve America's Energy Challenges

- **Research has led to new methods for extraction of gas from shale**
- **New technologies are being applied to the process that minimize environmental impacts**

U. S. Department of Energy

Deputy Assistant Secretary for Oil and Natural Gas

http://www.netl.doe.gov/technologies/oil-gas/publications/brochures/Shale_Gas_March_2011.pdf

Comments (Questions) Pertaining to Aspect 1

1 – Has the USFS studied the DMME and DoE data for use of hydrofracturing?

2 – What data does the USFS have that is contrary of those of the DMME and DoE and may I see that data?

ASPECT 2

Shale Gas
Applying Technology to Solve America's Energy Challenges

Benefits

- **Reduction of reliance on foreign energy supplies**
- **Reduction of CO2 production**
- **Provides for jobs and economic growth**
- **Lower fuel costs for manufacturing and home heating**
- **Revenue generation**

U. S. Department of Energy
Deputy Assistant Secretary for Oil and Natural Gas
http://www.netl.doe.gov/technologies/oil-gas/publications/brochures/Shale_Gas_March_2011.pdf

74 % of the Proven World Shale Oil Reserves (2826 billion barrels) are in the United States

- **The Federal Government owns ~ 34 % of all land in Augusta County (George Washington NF, Jefferson NF, and Shenandoah NP)**

- **With this plan the Federal Government has reserved a voice to authorize wind power plants which would occupy a total surface area on ridge tops that would far exceed any of that for drilling at lower elevations, and with little or not understanding of effects on the environment or the people.**

Comments Pertaining to Aspect 2

1 – Please explain why the USFS is justified in reducing the revenues of Augusta County by ownership of so much of the land in Augusta County.

2 – As a citizen of my county, my State, and my Country I want a justification for why you have devised a plan that

- **Maintains reliance on foreign energy supplies**
- **Prevents job and economic growths**
- **Supports higher fuel costs for manufacturing and home heating**

3 – Why are you supporting a low-density energy source (wind power) over that of a high-density one (gas drilling) when the damage to the environment for the low-density one is just as real and large as for the high-density one?

Dear Forest Service, 7-20-11

Thank you for protecting our National Forest from fracking. My family lives 3 miles from George Washington National Forest, and we go there several times a week. We hike, go to the reservoir, and swim in the swimming holes.

We camp there for my eight-year-old son's birthday every year. He chooses that rather than Chuckee Cheese, or a big cookout.

My boys would rather go to Big Levels, or Sherando, than go see a movie or go out to eat.

thanks again.

Sincerely,

Sonya Parlier

Sonya Parlier

Recd 8/3/11

Everett May

Mr. Everett May
19878 Bergton Rd.
Bergton, VA 22811

Everence Financial Advisors
841 Mount Clinton Pike
Harrisonburg, VA 22802
www.everence.com

Toll-free: (800) 442-7930
T: (540) 437-7422
F: (540) 433-1687

Dear Forest Supervisors,

I have lived for 74 years within G.W. N. Forest all surrounding areas.

We want to keep them from being exploited by Energy Companies Cutting Trees Fracking, Air Soil, Water Pol,

Please say No. To these Energy Companies demands

I hope My grandchildren can enjoy the Forest as I have Thank you !!!

August 11, 2011

To Whom It May Concern,

Thank you for taking the time to hear public comments regarding the draft plan for the George Washington National Forest. My main concerns include:

1) Prohibiting horizontal drilling is a very positive step. However, I support a complete ban on hydraulic fracturing, or "fracking." I am deeply concerned about the potential impacts to water supply + quality if hydraulic fracturing is permitted.

2) Less than a third of the land area within identified public drinking watersheds are considered "Priority Watersheds." Why is this?

3) This draft allows too much of an increase in oil/gas leasing. The current plan is better but less oil/gas leasing than the current plan would be best.

4) It is good that 2 areas of old growth forests are protected, but I support protecting more old growth forest areas. We need to protect large areas of mature, undisturbed forest to ensure the health of the ecosystem. We need much more designated wilderness areas and we should both add to existing wilderness areas and increase the number of new wilderness areas.

5) All Roadless Areas, including potential new ones, should be managed according to the 2001 Roadless Area Conservation Rule.

Again, thank you for the opportunity to participate in the planning process of our precious National Forest. I hope that you will strongly consider the views of the people who own and use the forest.

Sincerely,

Catherine W. Hess

Catherine W. Hess
6103 Wild Pear Lane

8/12/2011

To Whom It May Concern,

I live in Crozet, Virginia, and I am concerned about the draft plan for the George Washington National Forest. The following are my main concerns:

1. It is positive that horizontal drilling is prohibited, but I support an outright ban on hydraulic fracturing. I also think less land should be available for oil and gas leasing. Already too much land is available for leasing, and the draft increases the land available for leasing. This is a bad idea.

2. All roadless areas, including the newly identified ones, should be managed on the basis of the 2001 Roadless Area Conservation Rule.

3. Why are so many public drinking watersheds not included in the "Priority Watersheds"?

4. We need a great deal more wilderness areas. We shold add to existing wilderness areas and increase the number of new wilderness areas. The draft includes too little potential future wilderness areas.

Please improve the plan in a way that serves the people, who own and use the forest, instead of allowing multinational corporations to spoil our treasured natural resources.

Sincerely,

David L. Hess

6103 Wild Pear Lane
Crozet, VA 22932

2921 NE 53rd Street
Lighthouse Point, Florida 33064-7851
September 15, 2011

George Washington Plan Revision
George Washington and Jefferson National Forest
5162 Valleypointe Parkway
Roanoke, Virginia 24019

Dear Forest Service!

Regarding the draft Forest Revision Plan, 20,000 acres of new wilderness is totally inadequate! The Shenandoah Mountain National Scenic Area should include the Little Hore, Wilderness, the Lynn Hollow and Skidmore Hollow new wilderness, and an addition to the Ramsey Draft wilderness! There should be wilderness additions for the following wildernesses: Rich Hole, Three Ridges, Rough Mountain and St. Marys! There should be 2 additional new wildernesses, Beech Lick Knob and Little Allegheny Mountain! I would recommend National Scenic Area status for the Northern Massanutten! There also should be National Scenic Area for Big Schloss including wilderness for Three High Knobs!

The Forest Service plan of just recommending one new wilderness is much to little! I am also opposed to hydrofracking for natural gas and wind power in the 2 forests! If set aside as the above areas as wilderness, then these areas can be saved for their primitive, wildlife, scenic, and recreational values!

Sincerely

Reed Secord
REED SECORD

P.S. I have been to Virginia!

Sept. 7, 11

Dear Forest Service:

Re your Draft Plan for management of the GW Nat'l Forest. Please consider the following inclusions:

- Shenandoah Mtn Nat'l Scenic Area w/ Ramseys Draft Addition, Lynn Hollow, Little River and Skidmore Hollow as embedded wilderness areas
- Wilderness for Beech Lick Knob
- Wilderness additions for Rich Hole, Rough Mtn, Three Ridges and St. Mary's
- Natl Scenic Area status for B.G. School including wilderness for Three High Heads
- Wilderness for Little Allegheny Mtn
- Natl Scenic Area status for Northern Massanutten.

I am very concerned about hydrofracking in the Marcellus shale - there is so much threat to water supplies from this practice and too much dependence on the "goodwill" of companies that stand to make money on this process.

Industrial wind development also does

much concern, especially regarding cost/benefit/threat concerns. Please do not allow destruction of our finest mountain Ridges on the false promise of "clean" wilderness.

Thank you for your thoughtful consideration of my comments.

Sincerely,

Bob Bellan
2670 Stone Ct.,
Charlottesville VA 22901

P.S. Laurel Fork is an especially valuable part of the Forest for me. Brook trout fishing there is a public experience. I urge you to include Laurel Fork as a wilderness area.

B

Prof. L. P. Brower
2850 Cub Creek Rd
Roseland, VA 22967

George Washington Plan Revision
Geo. Wash & Jeff National Forests
5612 Valleypointe Parkway
Roanoke, VA 24019

Dear US Forest Service,

With the world environment rapidly deteriorating, and with the loss & degradation of temperate forests on an unprecedent planetary scale,

I urge you please to recommend re the Geo Washington National Forest — to promote and designate as many areas as Wilderness areas as possible

Since Teddy Roosevelt, the U.S. has led the world efforts on Wilderness conservation — Please carry this tradition forward.

Thank you.

Lincoln P. Brower

Prof. L. P. Brower
2850 Cub Creek Rd
Roseland, VA 22967

Sept 18, 2011
434 Shenandoah Mtn Dr
West Augusta, Va
24485
540-939-4164

Maureen T. Hyzer, Forest Supervisor
5162 Valleypointe Parkway
Roanoke, Va 24019

My Dear Ms. Hyzer,

About 10 years prior, I went before the Augusta Board of Supervisors and requested that the Ramsey Wilderness be expanded to double its size. One of the supervisors, who is no longer a supervisor stated that he received telephone calls 10 to 1 against the proposal from loggers. Personally I suspect that he was nothing but a big, big fat liar. As such my

I

opinion today has not changed. Not that it will make any difference, dom fact with the tremendous population growth in America todate, the entire forest area from southwestern Virginia along the Shenandoah Mountains should be converted and designated as a large all encompassing National Park. And yes logging and other uses should be permitted only on a very carefully selected basis. Hopefully Politics and lobbying are keep out of the decision process.

As ever,
Albert A. Fossa II

George Washington National Forest
Public Workshop Worksheet

Name: Larry Romans Date: 6/20/11

1. What in the Draft Forest Plan would you most like to see NOT change, and why?

~~300,000 acres Wilderness~~
~~26,000 wilderness recommended~~

2. What in the Draft Forest Plan would you most like to see change, and why? Be as specific as possible.

Not enough proposed wilderness & other protections - I support the broad based Shenandoah Mtn Proposal

3. What are the possible effects of this change on other resources or other users of the Forest?

4. Considering future potential biological, social and economic conditions, what are the impacts of this change for future generations?

Please use the reverse side if needed.

George Washington National Forest
Public Workshop Worksheet

Name: Jim Bryan Date: June 20 2011

1. What in the Draft Forest Plan would you most like to see NOT change, and why?

The importance of citizen participation
AND
The importance of scientific basis for decisions (data driven)

2. What in the Draft Forest Plan would you most like to see change, and why? Be as specific as possible.

Development of strategy + methods to use national forest managers to benefit the regional forest resource

I mean this in the context of regional forest decline - The national forests are meant as a reservoir for restoration of the American forests; and at this time the appalachian forests are to be in trouble

3. What are the possible effects of this change on other resources or other users of the Forest?

This would enhance all of the other functions and resources of the forest - we depend on the forest health in all respects; and need a forest-centered response to decades of acid deposition

4. Considering future potential biological, social and economic conditions, what are the impacts of this change for future generations?

Please use the reverse side if needed.

George Washington National Forest
Public Workshop Worksheet

Name:_____ Date: 6/22/11 @ Woodstock Public Wkshop

1. What in the Draft Forest Plan would you most like to see NOT change, and why?

ALT G IS EXCELLENT!

2. What in the Draft Forest Plan would you most like to see change, and why? Be as specific as possible.

WIND IS INAPPROPRIATE ON FOREST LANDS. IT KILLS BATS, BIRDS, DESTROYS ANIMAL HABITAT & PRODUCES VIRTUALLY NO ENERGY. IT IS A SCAM.

3. What are the possible effects of this change on other resources or other users of the Forest?

4. Considering future potential biological, social and economic conditions, what are the impacts of this change for future generations?

Please use the reverse side if needed.

George Washington National Forest
Public Workshop Worksheet

Name: Lynn Cameron Date: 6-22-11

1. **What in the Draft Forest Plan would you most like to see NOT change, and why?**

focus is on healthy forest—
keep it that way

2. **What in the Draft Forest Plan would you most like to see change, and why? Be as specific as possible.**

Shenandoah Mtn Proposal
+
more Wilderness - especially Laurel Fork
& Skidmore Fork

3. **What are the possible effects of this change on other resources or other users of the Forest?**

good for water, recreation, wildlife,
would not allow hydrofracking & other energy
dev. in ~~the~~ our most outstanding areas.

4. **Considering future potential biological, social and economic conditions, what are the impacts of this change for future generations?**

would preserve an outstanding area for
future generations.

Please use the reverse side if needed.