

From: [Russ Hendricks](#)
To: [Rule Making](#)
Subject: Shade Rule Comments
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Attachments: [image003.png](#)
[Shade Rule Comments 0819.pdf](#)

Ms. Andrea:

Please find attached the official comments of the Idaho Farm Bureau Federation in response to the public hearing on IDL's shade rule.

If you have any questions, please do not hesitate to contact me.

Best,

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August 15, 2019

Ms. Ara Andrea
Forestry Assistance Bureau Chief
Idaho Department of Lands
3284 W. Industrial Loop
Coeur d'Alene, ID 83815

Dear Ms. Andrea:

On behalf of the more than 80,000 Idaho families who are members of the Idaho Farm Bureau Federation, I appreciate the opportunity to submit the following comments related to IDAPA 20.02.01, Rules Pertaining to the Idaho Forest Practices Act, specifically those portions commonly referred to as the shade rule.

A significant number of our members are private timberland owners who are directly impacted by this rule. Our members have had a policy for many years which states: "We support the Idaho Forest Practices Act except where it infringes on private property rights. We oppose the Forest Practices Act Streamside Retention Rule (shade rule) unless accompanied by fair market appraised value compensation to landowners for loss of property rights." This policy guides our comments below.

1. The shade rule is unconstitutional.

Our most fundamental opposition to the shade rule is that it is a direct violation of the requirement in both the Idaho and the U.S. Constitutions to provide just compensation when private property is taken for public use. Article I, Section 14 of the Idaho Constitution states "Private property may be taken for public use, but not until just compensation, to be ascertained in the manner prescribed by law, shall be paid therefor." Likewise, the fifth amendment of the U.S. Constitution states "nor shall private property be taken for public use without just compensation."

The Idaho Regulatory Takings Act (title 67, chapter 80) defines a regulatory taking as "a regulatory or administrative action resulting in deprivation of private property that is the subject of such action, whether such deprivation is total or partial, permanent or temporary, in violation of the state or federal constitution." The shade rule's prohibition of harvest of privately owned trees is a deprivation of property within this definition. It directly takes money out of the pockets of private landowners when they are forced to leave trees that they might otherwise profitably harvest.

Removing this restriction on private lands, or alternatively, providing direct payments or other incentives for landowners to leave trees for shade would be options that would not unconstitutionally infringe on private property rights.

2. Enforcing the shade rule on private landowners provides a very small incremental benefit at best, yet it imposes huge costs on Idaho citizens.

63% of Idaho is administered by federal agencies, while state and local governments administer another 7% of the state; leaving only 30% of Idaho in private ownership. According to the University of Idaho Policy Analysis Group, “forests cover approximately 21.2 million acres of land in Idaho, or 40 percent of the land base. Privately owned forests make up 3 million acres” or about 14% of Idaho forests.

Based upon this pattern of land ownership, imposing shade requirements on harvest operations occurring on both state and federally administered lands will still provide 86% of the benefits expected. On the remaining 14% of Idaho forest lands that are privately owned, only a small fraction will engage in harvest activities each year. Therefore, the expected benefits from private lands each year are minor at best. The shade rule imposes severe economic harm on a small segment of Idaho citizens under the guise of providing a benefit for society as a whole.

President Trump’s Administration recognizes the fundamental unfairness and unconstitutional nature of policies such as this and has recently finalized changes in the administration of the Endangered Species Act. One of their documents detailing the changes states “With a majority of the habitat species need to survive on private lands, the federal government must encourage private conservation.” This is a stark contrast to the decades old practice of forcing compliance on private property without any compensation. This is the direction Idaho must also move to avoid running afoul of constitutionally protected rights.

3. There is no clear authorization in the Forest Practices Act for the shade rule.

The Forest Practices Act (FPA), Title 38, Chapter 13 Idaho Code, is the purported authorization for the shade rule. Yet there is absolutely no mention of shade anywhere in the entire Act. The only semblance of statutory authorization for the shade rule in the FPA is in 38-1304 (1) (a) which states:

38-1304. DUTIES OF THE BOARD. The board:

(1) Shall adopt rules for forest regions establishing minimum standards for the conduct of forest practices on forest land. These rules shall be based upon the following criteria:

(a) Provide for the harvesting of forest tree species in a manner that will maintain the productivity of the forest land, minimize soil and debris entering streams and protect wildlife and fish habitat.

There are many voluntary practices that forestland owners could implement to “protect wildlife and fish habitat” that would not be an unconstitutional taking of their property. Unfortunately, IDL has stretched the meaning of this phrase beyond recognition to the point of authorizing the taking of property rights to provide shade over streams for fish. For instance, nowhere in the FPA is there any standard set for water quality, nor does the FPA reference any other authorities, either federal or state, under which water quality standards of any kind must be met.

Farm Bureau was told by an IDL staff member that the shade rule was a requirement of DEQ to enable Idaho to meet certain federal Clean Water Act standards. In consultation with DEQ, we have found that this is not the case. DEQ confirmed that “there are connections between IDL’s forest practices rules and DEQ’s surface water quality programs under the Clean Water Act. DEQ, in partnership with a number of state and federal stakeholders, has developed a Nonpoint Source Management Plan pursuant to Clean Water Act section 319 (33 USC 1329). The Plan is not a regulation and does not, in and of itself, create enforceable legal requirements. But it is a prerequisite for federal grant monies under section 319. The Plan identifies IDL’s forest practice rules as a source for BMPs to reduce nonpoint source pollution from silvicultural activities, and IDL is identified as an agency responsible for addressing nonpoint source impacts from various sectors (e.g., agriculture, mining, silviculture, transportation).” (emphasis added)

FPA rules pertaining to sedimentation do assist DEQ in meeting their plan criteria. However, the plan does not address either shade or temperature standards; and even if it did, as noted above, the plan is not a regulation and does not create enforceable standards. There is no evidence that there is any enforceable statutory authority requiring private landowners to comply with the shade rule.

4. Other portions of the FPA indicate that the act is purely voluntary and cooperative.

The purpose of the act is declared in section 38-1302:

38-1302. POLICY OF THE STATE — PURPOSE OF ACT. (1) Recognizing that federal, state and private forest lands make a vital contribution to Idaho by providing jobs, products, tax base, and other social and economic benefits, by helping to maintain forest tree species, soil, air and water resources, and by providing a habitat for wildlife and aquatic life, it is the public policy of the state to encourage forest practices on these lands that maintain and enhance those benefits and resources for the people of the state of Idaho. (emphasis added)

This statement of purpose makes it clear that the FPA is intended to encourage forest practices that maintain and enhance the enumerated benefits. It also recognizes that forest lands help to maintain soil, air and water resources, but are not solely responsible for them. Many other factors contribute to the maintenance of these resources. Therefore, it is a long stretch to get from the “encouraging” text in the purpose of the act to the heavy-handed requirements of the shade rule which impose economic damage on Idaho citizens.

Although the next paragraph of the purpose may be pointed to by some as the “hammer” in the law, even it is framed in a way to encourage certain activities “designed to assure the continuous growing and harvesting of forest tree species.”

(2) To encourage uniform forest practices implementing the policy of this chapter, and to provide a mechanism for harmonizing and helping it implement and enforce laws and rules relating to federal, state and private forest land, it is the purpose of this chapter to vest in the board authority to adopt rules designed to assure the continuous growing and harvesting of forest tree species and to protect and maintain the forest soil, air, water resources, wildlife and aquatic habitat. (emphasis added)

How are we to read “encourage” and “helping” if not in a voluntary, cooperative manner? If the Act’s purpose was to force compliance, why were these words included so prominently in the purpose of the Act?

Neither this section, nor any others within the act which refer to the harvest of trees stipulate that harvest is to be “only outside of the stream protection zone” nor do they say harvest is to be “primarily outside the stream protection zone.” In fact, none of the sections within the act provide any restrictions at all upon the harvesting of forest tree species except that they be “in a manner that will maintain the productivity of the forest land.” It is difficult to maintain the productivity of the forest land if harvest is prohibited.

Furthermore, there are a number of ways that “soil, air, water resources, wildlife and aquatic habitat” could be protected and maintained without destroying property rights or inflicting economic harm on Idaho citizens. There is no evidence that the Legislature intended for IDL to impose a “shade rule” as part of that regime.

5. The Legislature clearly intended flexibility in reforestation.

Harvest of trees is required before reforestation can occur. There is no evidence in the FPA that there are any areas of forest land that is off limits from harvest, and later reforestation.

38-1304. DUTIES OF THE BOARD. The board:

(1) Shall adopt rules for forest regions establishing minimum standards for the conduct of forest practices on forest land. These rules shall be based upon the following criteria:

(c) Provide for reforestation that will maintain a continuous growing and harvesting of forest tree species by describing the conditions under which reforestation will be required, specifying the minimum number of trees per acre and the maximum period of time allowed after harvesting for establishment of forest tree species, and requiring stabilization of soils which have become exposed as a result of harvesting; however, an acreage exemption from reforestation may be established except that on such land exempted within one (1) year following harvesting, some form of vegetative cover shall be required sufficient to provide continuing soil productivity and stabilization. (emphasis added)

It is curious that the Legislature took the time and effort to discuss in some detail the reforestation that they expect after harvest, specifically detailing certain parameters, including a time period will be allowed prior to establishment of trees. They specifically included an opportunity for an acreage exemption for reforestation; yet, they did not make any mention at all of excluding riparian areas from the harvesting and reforestation opportunity. This indicates that the legislature had no intention of restricting harvest, but they did want to ensure that forest species would be re-established at some future point, which would be determined by the Board.

Similarly, the Legislature expressly recognizes that soils will be exposed during harvest operations and will need to be reforested at some future point to stabilize those soils. There is not, however, any

prohibition against exposing soils, harvesting or removing shade at all. The shade rule again is an extreme stretch of the text of the FPA.

6. The legislature intended to defer to private owner management decisions.

When the FPA was first codified in 1974, it did not include 38-1304 (f).

38-1304. DUTIES OF THE BOARD. The board:

(1) Shall adopt rules for forest regions establishing minimum standards for the conduct of forest practices on forest land. These rules shall be based upon the following criteria:

(f) Provide for the timely salvage logging on all forest lands of dead or dying timber or timber that is threatened by various physical elements. Rules developed pursuant to this section shall consider both the economic value of the timber to be salvaged, the immediate costs of the salvage efforts, and the long-term costs to all forest resources and values associated with insect, disease or fire conditions which might otherwise be controlled by the salvage operations. The provisions of this subpart shall not apply to single contiguous forest ownerships less than two thousand (2,000) acres in size. **Nothing in this paragraph shall be construed as requiring the removal of timber from private lands against the wishes of the private landowner.** (Emphasis added)

The Legislature added this section in 1991 **to require** dead or dying timber to be salvaged (harvested) “where the removal of such timber will help contain insect or disease outbreaks, aid in the prevention of wildfire, or, over the long term, help protect such resources and values as wildlife, water, soils or air quality.” Then, despite the clear indication that this required salvage logging is motivated by the desire to reduce the long-term negative effects on forest resources and values, the legislature still expressly stated that they would NOT require the removal of timber from private lands against the wishes of private landowners.

In the minutes of the Senate Resources and Environment Committee from March 1, 1991, during discussion of S1146, which proposed adding paragraph (f) above to the FPA to protect forests from insects, disease and wildfires, “Stan Hamilton, Director of the Idaho Department of Lands, said he did not believe the Land Board would be in the role of freely entering private land for the purpose of harvesting diseased, dying or dead trees.” Unpersuaded by Mr. Hamilton’s testimony, the committee sent S1146 to the 14th order to add the underlined sentence in the paragraph above to assure IDL did not force landowners to harvest against their wishes.

It is instructive that the legislature was adamantly opposed to forcing a landowner to harvest trees against his wishes, despite the potential for damage to adjacent forestland. The underlined statement added by the legislature in subparagraph (f) above recognizes the sovereignty of the landowner over his property and that government cannot force him to harvest against his wishes. Unfortunately, the shade rule does precisely that, just in the opposite direction by prohibiting the landowner from harvesting even if he desires to do so. This is exactly the same issue, just on the opposite side of the coin. It is illogical to believe that the legislature was so careful to protect a landowner’s right to not harvest trees but would conversely allow IDL to prohibit a landowner from harvesting his own trees.

As a side note, although this is outside the scope of this particular rulemaking, it appears that neither IDL nor the Land Board have enforced this law requiring the federal agencies to undertake the “timely salvage logging” on the lands they administer. There is no doubt the act applies to federal lands. The definitions in the FPA of both “forest land” and “landowner” clearly include federal lands within the act. The Legislature back in 1991 was quite visionary to amend the FPA specifically to require federal agencies to harvest dead and dying timber prior to it becoming a hazard to surrounding forestlands.

There will be those who claim that this was not the intent of this amendment, but that is not true. Again, from the minutes of the Senate Resources and Environment Committee from March 1, 1991, during discussion of S1141 which added federal lands to the FPA, Mr. Hamilton, Director of IDL “stated that the purpose is primarily to clarify that federally owned lands are under the Idaho Forest Practices Act.” Mr. Hamilton further stated, “This bill will clarify that federal lands are subject to terms of the Forest Practices Act thereby insuring that appropriate water quality best management practices are applied on federal lands as well as state lands.”

Numerous water quality issues would be prevented by ensuring dead and dying timber on federal lands was properly harvested prior to fueling catastrophic wildfires. Due to the massive amount of fuels in the federal forests, these fires in many cases are hot enough to sterilize soils, delaying revegetation which prolongs opportunities for erosion, causing increased sedimentation and removing all shade along streams for miles.

Now, nearly 30 years later, due to the lack of enforcement of this provision of the FPA, both the State and federal agencies are culpable for the increasingly regular wildfires that have been ravaging our watersheds and forests across the state. This burning of U.S. Forest Service land on a colossal scale is causing FAR more damage than if every acre of privately owned forest land was being simultaneously harvested and every tree was removed right up to the creek. Enforcement of this one statutory requirement alone would do far more to enhance and protect water quality in the state than any other forest practice on any property.

7. Changes in the shade rule are barred by the statute itself.

Section 38-130S states in part:

- (7) All site-specific BMPs approved at the time of the effective date of this act shall remain in force and be enforced by the designated agency;

The shade rule is a BMP as defined by IDL rules section 010. Definitions, subsection 05. Best Management Practice, which states in part “BMPs shall include but not be limited to those management practices included in these rules.” This definition has existed since 1990, prior to the time that 38-130S(7) was adopted. Site-specific Best Management Practice is also defined in IDL rules as “A BMP that is adapted to and takes account of the specific factors influencing water quality, water quality objectives, on-site conditions, and other factors applicable to the site where a forest practice occurs, and which has been approved by the Department, or by the Board in consultation with the Department and the Forest Practices Advisory Committee.”

Although IDL claims in their “guidance” related to the FPA rules that site-specific BMPs only applies to those that “were developed under the Idaho Antidegradation Agreement from 1989-1995” there is nothing in the text of either the statute or the rule to validate that claim.

Therefore, by the plain text of these definitions, the shade rule is a site-specific BMP. It meets all of the criteria listed in the definitions. This means that legally, the shade rule as it existed at the time the FPA was amended to include 38-1305(f) cannot be repealed or modified except by an act of the Legislature to amend this statute. Mere approval of a subsequent rule by the legislature does not nullify nor override the statutory language. No rule can validly exist that does not conform to the statutory authorization.

The shade rule as we know it has gone through many iterations since that time, which means all of them are illegal and should not ever have been enforced by the department without statutory change by the Legislature.

8. The science is inconclusive, and often contradictory on this issue.

There are multiple studies of the factors affecting stream temperature, all of which study various facets of this issue. However, several themes have emerged as the studies are reviewed.

1. Water temperature is a complex and dynamic system which is highly site specific.

“Some of the variability in maximum daily stream temperature response was dependent on the percent of catchment harvested and the catchment lithology. There was no evidence for increases in stream temperature in catchments with a high percent of catchment area harvested, but underlain by permeable geology. This may be due to the buffering effect of increases in summer low flows and greater groundwater or hyporheic exchange. Harvested catchments underlain by resistant (less friable) geology experienced the greatest increases in stream temperature. We believe that this is also an expression of variability in rock permeability and the relative contribution of cooler groundwater during the summer months, which warrants additional research focus.” *A multicatchment analysis of headwater and downstream temperature effects from contemporary forest harvesting*, 2018, Hydrological Processes, Kevin Bladon, Catalina Segura, Nicholas Cook, Sharon Bywater-Reyes, Maryanne Reiter

“The establishment of vegetation shade along streams to control stream temperature may seem reasonable upon first review. However, this is a simplistic view of a complex and dynamic system.” *Riparian shade and stream temperature: A perspective*, August 1996, *Rangelands*, L.L. Larson, S.L. Larson

2. Geology, stream width, depth, velocity, connection with groundwater, etc. all have an important relationship to water temperature apart from shade.

Kevin Bladon of Oregon State University, and principal author of *A multicatchment analysis of headwater and downstream temperature effects from contemporary forest harvesting* stated in an

article on physics.org on January 24, 2018 "Stream temperature is one of those things that people tend to think is simple and easy to measure. However, the dynamics and all of the factors that influence it are quite complicated. Temperatures aren't just influenced by exposure of water to the sun. They depend on things like whether the water flows through the stream bed or through a stream bank, the geometry of the stream channel, how much water there is in the stream channel, and how much groundwater input there is."

3. Water temperatures drop after a period of travelling through shade below a section of stream with no shade. Since not all parcels are harvested simultaneously along streams, there will always be downstream shade to counteract any potential effects on shade from harvest activities.

"In this study, we observed elevated maximum daily stream temperatures after forest harvesting in several small, non-fishbearing, headwater streams. Despite these increases, we found no evidence for downstream warming related to upstream harvesting activity. Rather, heated water from harvested sites rapidly decreased in temperature after flowing into stream reaches with full forest cover." *A multicatchment analysis of headwater and downstream temperature effects from contemporary forest harvesting*, 2018, Hydrological Processes, Kevin Bladon, Catalina Segura, Nicholas Cook, Sharon Bywater-Reyes, Maryanne Reiter

"Notably, the model predicted that it took approximately 4 hours travel time for water temperature to reach a new equilibrium below a step change of shade. This is consistent with our experimental observations in which heating/cooling rates were high for the first 1.1 – 1.6 h and significantly lower for the second 1.9 – 2.7 h below 40-70% step changes of shade. Thus, we would not expect the high heating/cooling rates reported here to persist for more than approximately 4h travel time below a step change of shade in streams similar to those studied." *Effects of patchy shade on stream water temperature: how quickly do small streams heat and cool?*, 2004, Marine and Freshwater Research, J.C. Rutherford, N.A. Marsh, P. M. Davies, S.E. Bunn.

"During a study of logging and southeastern trout streams, Greene (1950) reported that the maximum temperature dropped from 80 to 68°F after the non-forested stream meandered through 400 feet of forest and brush cover." *Effects of Clear-Cutting on Stream Temperature*, Brown and Krygier, Oregon State University, August, 1970.

4. Streamside vegetation does not take long to establish itself and will provide shade within a few years on its own, thus restoring stream temperatures at a harvest site back to preharvest levels.

One of the Seminal research papers which seems to be continually referenced by other researchers in this field is *Effects of Clear-Cutting on Stream Temperature* by Brown and Krygier, Oregon State University, August, 1970. Their study is often cited as justification for retaining streamside shade during harvest operations. However, the authors make several important comments in their publication. Below are a few excerpts:

"Temperature amelioration is related to shade development. As stream bank vegetation becomes reestablished, temperatures drop accordingly."

"On the basis of our data, it seems that summer maximums may approach pre-logging levels within six years after logging has completely exposed the stream" once streamside vegetation has reestablished itself.

"The decline of maximum temperatures after 1967 represent the rapid return of streamside vegetation in this watershed."

In a rebuttal attempting to disprove Larson and Larson's dismissal of the importance of shade on streams to maintain temperature, Beschta admits "functional riparian plant communities that produce adequate stream shade and provide improved bank stability can usually be reestablished and restored, often over relatively short periods of time." *Riparian Shade and Stream Temperature: An Alternative Perspective*, April 1997, Rangelands, Robert L. Beschta

S. Minimum stream temperatures are totally unaffected by shade levels and are a strong buffer against excessive, or runaway daily maximum temperatures.

"We found that the daily minimum water temperature was unaffected by riparian shade. The reason is that daily minimum water temperature is largely determined by air temperature, the exchange of long-wave radiation between the atmosphere and the stream at night, and heat conduction from the stream bed." *Effects of patchy shade on stream water temperature: how quickly do small streams heat and cool?*, 2004, *Marine and Freshwater Research*, J.C. Rutherford, N.A. Marsh, P. M. Davies, S.E. Bunn.

"Over-night low air temperature will modify the daily temperature range of a stream by influencing pre-dawn water temperature." *Riparian shade and stream temperature: A perspective*, August 1996, *Rangelands*, L.L. Larson, S.L. Larson

6. A one-size fits all rule that requires a specified relative stocking rate does not ensure desired results.

"Woody vegetation is only one component in a riparian ecosystem. Its importance is dependent upon site conditions and is site specific. Watershed attributes such as air mass characteristics, elevation gradient, adiabatic rate, channel (water) width and depth, water velocity, surrounding landscape, and interflow inputs all influence water temperature and can be of equal or greater importance to stream temperature than vegetation shade." *Riparian shade and stream temperature: A perspective*, August 1996, *Rangelands*, L.L. Larson, S.L. Larson

"Shade generated by the topography and/or stream channel will also contribute different levels of shading and exposure for water. Consequently, shade standards should indicate the amount of shade needed, not the quantity and size of woody vegetation." *Riparian shade and stream temperature: A perspective*, August 1996, *Rangelands*, L.L. Larson, S.L. Larson

In conclusion, regardless of whether the shade rule is effective in accomplishing its intended purpose or not does not change the fact that it is an unconstitutional taking of private property. Individual landowners receive no specific benefit from this rule, yet they bear 100% of the cost. The shade rule

takes money directly out of the pocket of timber land owners through a prohibition from harvesting timber within a certain distance from a stream on private property. This is an unconstitutional taking of private property without just compensation.

The Forest Practices Act provides no authority for such a sweeping and far reaching rule. Conversely, there are many indications in the act itself that the Legislature had no intention of enforcing mandatory practices against the will of the landowners.

We do not believe legislators would ever consider prohibiting wheat farmers from harvesting their crop within 30 feet of a fence-line to provide habitat for pheasants. Nor do we believe Legislators would allow enforcement of a rule requiring Micron to cut two hours off of each shift so that their employee traffic would not occur during rush hour. Yet this is exactly what the shade rule is doing to private timberland owners. It is requiring them to foot the entire cost of a so-called "public good."

We therefore request that IDL modify the shade rule so it rightfully returns to a voluntary, non-enforceable BMP on private land, but would continue to fully apply to state and federal lands. This will resolve the constitutional conflict and will still provide more than 86% of the results which the rule purports to deliver. If IDL is unwilling to remove private lands from the shade rule, then it must compensate landowners for the loss of revenue they are required to forgo to avoid a constitutional violation.

Thank you for the opportunity to provide our comments on this very important issue. If you have any questions about these comments, please contact Russ Hendricks in our Boise office at 208-342-2688.

Sincerely,



Bryan Searle, President
Idaho Farm Bureau Federation

CC Governor Brad Little
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Attorney General Lawrence Wasden
State Controller Brandon Woolf
Superintendent of Public Instruction Sherri Ybarra
Senator Lee Heider, Chairman Senate Resources Committee
Representative Marc Gibbs, Chairman House Resources Committee