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Michael J. Korn  
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Roseburg District of the BLM  
March 31, 2017  
Dear Mike Korn:

Please accept these comments from Umpqua Watersheds, Inc. (UW) on the Days Creek-South Umpqua Harvest Plan EA, **DOI-BLM-OR-R050-2014-0008-EA**.

### **Introduction**

In this management proposal, the Roseburg District has laid out how every aspect of this timber sale operation, all of the VRH and CT extractive volume it proposes, is in accord with the '95 ROD, RMP, and all laws, etc. You list the Oregon and California Revested Lands Act (aka, 1937 O&C Act) as one of these guiding laws. You further refer to that Act thus: "The O&C Act requires the Secretary of the Interior to manage suitable O&C timber lands for permanent forest production in accordance with the principles of sustained yield (1995 ROD/RMP, p. 15)."<sup>1</sup> However, BLM fails, in the Days Creek-South Umpqua Harvest Plan EA, to fully and specifically discuss the concomitant requirement of that significant, if dated, legislation, to protect watersheds and regulate stream flows.

The present district-wide situation, whereby only a fraction of the total of lands managed by the Roseburg District, are designated General Forest Management Areas (GFMA, aka matrix) is, unfortunately, indicative of, and resultant from, the past over-harvest of primary old growth and mature forest that was carried out by the BLM for the several decades preceding adoption of the Northwest Forest Plan (NWFP). It is Umpqua Watersheds' studied opinion that this very wide spread, long lasting conversion of primary forest to plantation and other stand initiation conditions, on public, as well as on

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1 Days Creek-South Umpqua EA, pg. 4

the vast private industrial lands of Western Oregon, has painted all of us into a management corner, so to speak. If you will please excuse UW's mixing of metaphors, BLM and USFS forest managers, state and county governments, industry, conservation organizations, and all residents of these many watersheds, human and otherwise, are entangled together, at present, in the economic, ecological, social and yes, in the bureaucratic mesh of this consequential and unfortunate net of circumstances. We are presently faced with the thankless choice of managing for short term financial and political benefits realized at the continued expense of restored watershed functioning and all of the often existential benefits that go with it. These last comprise the very real and priceless, long term benefits true consideration of the wider public trust demands. They are the very all-encompassing benefits that increased extraction, including the creation of still more large openings, extractive entries into older and older stands, as well as the on-going clear cut degradation of shared watersheds by private industrial activities must short change, or even preclude.

### **Historical Context**

In researching various aspects of the oft-cited 1937 O & C Act, UW came across a paper authored by one Frank N. Price, ecologist for the Coos Bay District of the BLM for several decades. We offer the following quote from that paper: *“I have been curious as to the administrative record and intent behind including the phrases “protecting watersheds, regulating stream flow” and “providing recreational facilities.” Efforts to satisfy this curiosity lead (sic) to investigations into the political and professional conditions and attitudes in the 1930s that lead (sic) up to the passage of the O & C Act, and to a review of the papers written by or for Walter H. Horning concerning the genesis of the O & C Act, and the early policies of the agency charged with execution of the O & C Act provisions.”*<sup>2</sup>

(As regards Horning's primary influence on and understanding of the O & C Act, UW offers the following from the Price paper: *“In this capacity, Horning wrote the substance of the O & C Act, and prepared the forestry arguments and the statistical data for Poole's use during the hearings. Following the passage of the O & C Act, the Secretary of the Interior appointed a three-man committee to write regulations and procedures for implementing the timber program for the O & C Administration. Walter Horning, fresh from the legislative battles for the O & C Act and familiar to the commitments made to Congress, was appointed to the committee.”*<sup>3</sup> UW thus feels confident in believing that Horning's understanding of the intent and vision, going forward, for that act cannot be easily refuted. He, so to speak, is the very fountainhead for that intent and vision, flowing sustainably across the region's watersheds, if you will, and perpetually and cleanly seaward, as well it should have, down the ensuing decades.)

UW's curiosity piqued by this disclaimer, we read a copy of a speech delivered by this same Walter H. Horning to the Annual meeting of the Western Forestry and Conservation Association in Portland Oregon, in December of 1937, which was included by Price, in the aforementioned paper.<sup>4</sup> From that speech we quote the following: *“Utilization of the forest must be managed in such a manner as to avoid depletion of the forest capital; the interest alone may be safely used. The observance of this*

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2        *ibid.*

3        Price, Frank N., 2005, Pg. 3, Protecting Watersheds, Regulating Stream Flow, and Providing Recreational Facilities: The Intent of this Language in the O & C Act, Early Interpretation and Historic Context.

4        *ibid.* Pp. 4, 5

*principle is essential in providing for the stabilization of the economic life of communities, which are dependent upon the forest.*” With that broad recommendation in mind, UW offers the following data; data which graphically underlines the decades long over-harvest of primary old-growth and mature forest by the BLM, in Western Oregon, in general, and on the Roseburg District, in particular. This was an over-application, it appears to us, of the vaunted Sustained Yield extractive model at the obvious expense of watershed protection, stream flow regulation and provision for recreation, thereby obviating much of the spirit and intent of Horning's proven understanding of, and stated vision for, the O & C lands managed by the BLM. That these ancillary provisions of the act, so clearly critical in the mind of a foundational progenitor of that act, were short changed in preferment of sustained yield for decades is proven, ipso facto, by the subsequent necessity of applying the strictures of the Endangered Species Act, The Northwest Forest Plan, The Clean Water Act, National Environmental Policy Act, etc.

To wit: that region-wide annual average extractive volume converted more than **900 mmbf** from primary forest to plantations etc, for more than three decades. On the Roseburg District alone, between the years 1963 and 1993, reported timber sale quantities amounted to a total of **6,235,897 mmbf**. Over the same thirty year period, again just on the Roseburg District alone, this level of extraction left a reported **141,498** clear cut acres, and an additional **95,583** acres of partial cuts in its wake, so to speak, for a total of **237,081** acres thereby converted from primary forest to plantation or other stand initiation condition.<sup>5</sup> This converted acreage represents more than half of the Roseburg District's approximate **420,000** acre total!

In that same Portland speech quoted by Price, Horning further states: *“It is sound national economy to regulate the use of the forest in such a manner as to maintain a continuous forest cover. **This is essential for the regulation of stream flow and for the protection of watersheds and further more it contributes to the general satisfaction and happiness of the inhabitants of a region by keeping the landscape in a green and attractive condition.**”* (emphasis, UW) A “green and attractive condition” indeed!

Given all of the past primary forest extraction by the BLM, and by the past and present clear cut extraction undertaken by the private timber industry, one must exercise the imagination in order to picture such a “...green and attractive condition...” across the watersheds of Western Oregon and the Roseburg District. For alas, that wholesome, healthy environmental and aesthetic condition, the very one envisioned by a primary author, and an original and fully authorized explicator, of the O & C Act, in too many instances does not now exist on the ground.

Horning further tellingly proclaims to his assembled, 1937 audience: *“It is contemplated that such cutting shall be carried out under rules of forest practice providing for partial or selective logging. Single tree and small group selection will be the preferred practice where ever the forest type, topography and other conditions permit its successful application. Indiscriminate clear cutting or the use of methods which prevent prompt reforestation of the logged areas are contrary to the spirit of the Act and will be discontinued.”*<sup>6</sup> Contrary to the spirit of the Act, indeed!

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5 Source: Welcome to BLM Facts, <https://www.blm.gov/or/onlineservices/orblmfacts.php>

6 Price, Frank N., 2005, Pp. 4, 5, Protecting Watersheds, Regulating Stream Flow, and Providing Recreational Facilities: The Intent of this Language in the O & C Act, Early Interpretation and Historic Context.

Finally, this declarative and defining paragraph, excerpted from that same 1937 speech of Walter H. Horning, a “Founding Father” as it were, of the 1937 O & C Act: “*The Department of the Interior is desirous of doing a good job of forestry and forest conservation on the O. and C. lands and to encourage good forestry on the intermingled lands of other owners.*” (emphasis, UW)

**Regarding the Need For the BLM To Defend the Public Trust, By Openly and Effectively Criticizing the Suite of Harmful Environmental and Other Impacts Visited Upon the Public Lands It Manages, by Private Clear Cut Timber Extraction, Conducted Under Aegis of the Oregon Forest Practices Act**

This last unequivocal statement by Walter H. Horning, UW has quoted above (“...*and to encourage good forestry on the intermingled lands of other owners.*”) regarding the requisite interplay between the BLM (as well as, we maintain, the USFS, the USFWS and NMFS et al.) and the private industrial lands of the shared watersheds comprising the infamous and most unfortunate “checkerboard” of alternating ownerships, is indicative of the cooperative understanding implicit in the minds of the O & C Act's authors and explicators, from the very beginning.

Reading further in the Price paper, we found this statement: “*An intent of the act was to bring both the O & C lands and the intermingled private lands under sustained yield using cooperative management agreements. The act was also intended to bring about conservation of nontimber resources (i.e. protect watersheds and regulate stream flows) across both public and private lands within each sustain-yield unit.*”<sup>7</sup> (emphasis, UW)

Quite clearly, the authors of the O & C Act of 1937 had no compunction about the federal forest management agency, which was the precursor of the BLM, influencing, in an effective way, the management activities affecting conservation of resources, on adjoining private forest lands in the checkerboard. Nor, for that matter, did the Interior Department, when it issued the following directive to the newly minted BLM, on June 2, 1948: “*Both public and private lands committed to the [sustained-yield cooperative] agreement shall be subject to public recreational use, including hunting and fishing. Adequate safeguards shall be provided for fish and wildlife conservation, for the protection of water supplies, and for preservation of scenic values.*”<sup>8</sup>

That this idea (clearly, in the mind of its author(s), more than mere suggestion) was largely brushed aside in the ensuing decades, in favor of over-extraction of primary forest, is again borne out, ipso facto, by the plethora of degraded, DEQ listed rivers and their tributaries, as well as by the listed and/or diminished or disappeared fish runs and terrestrial species, sadly so much in evidence today, on much of the Roseburg District, as in Oregon generally. It is proven by the many large clear cuts and monoculture plantations on the private lands of these watersheds; anthropocentric constructs whose ecological properties (or lack of) stand (or fall) in stark and startling contrast to the accepted conservation/restoration practices evident almost exclusively on public lands today.

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7 Price, Frank N., 2005, Pg. 7, Protecting Watersheds, Regulating Stream Flow, and Providing Recreational Facilities: The Intent of this Language in the O & C Act, Early Interpretation and Historic Context.

8 *ibid.*, Pp. 7, 8

In short, the “Financial Forestry” version of “Sustained Yield,” so regrettably and widely evident on those same private industrial timberlands today, is made economically feasible, to a significant extent, by shifting most of its external environmental and local government funding costs (its externalities, that is) onto the life sustaining watersheds within the “checkerboard” in general, and onto the public lands within that checkerboard, which are managed by the BLM, and, in this instance, onto those of the Days Creek-South Umpqua Harvest Plan EA, in particular. This environmentally unjust, economically and historically unfair and chronic imbalance needs to be equalized before renewed extractive demands that create still more large canopy openings, or introduce commercial extraction into older stands on public lands are undertaken, yet again. These older stands, in this EA, proposed for either VRH or CT range from 100 to 150 years old. In the wider public interest, because of current contextual conditions, and in light of its own profligate past practices, BLM has the right and bears a great deal of the responsibility for correcting this imbalance.

These historical and current contextual conditions are, or they ought to be, limiting influences on such BLM management proposals as the Days Creek-South Umpqua Harvest Plan EA, which would impose still more large openings on watersheds already, and quite obviously, environmentally and aesthetically overburdened with them. UW therefore asserts that the use of ECA or any other metric, which attempts to minimize or obfuscate these clear and present threats to watershed health and the protection of streamflow, must, perforce, only serve to validate chronic, cumulative and increasing violations of the 1937 O & C Act's mandates regarding these critical ecological parameters, as well as the mandates of the Clean Water Act etc.

To reiterate what UW has posited in other comments, protests etc. to the BLM (and the USFS), timber harvests originating on BLM managed public forests lands are, and have been, subject to payment of the Oregon Forest Products Harvest Tax (OFPHT), since economic principles teach that bid price is the sum of all taxes. (In 2016, in response to an inquiry made by Umpqua Watersheds to the Oregon Department of Revenue (ODR), that state agency reported to UW that, for the years 2006 to 2015, extraction sourced from Federal forestlands remitted **\$2,486,183.83** to ODR. Clearly, then, the State of Oregon concurs with UW's finding that logs from Federal lands are taxed by Oregon.)

Thus, it directly follows that the BLM enjoys the right and bears the responsibility to, at long last, protest to the Oregon Department of Forestry, the Oregon Board of Forestry and the State Land Board, etc. the continued imposition of these and all of the negative and very cumulative impacts that comparatively retrograde management activities, undertaken on OFPA regulated private lands, impose upon the public forestlands the BLM manages, in trust, for all of the people of the United States of America, within the Days Creek-South Umpqua Harvest Plan EA Area. In the end, tax or no tax, this, unequivocally, is very much a public trust issue. UW's research of this issue shows that public trust assignment to the BLM to have been a significant consideration for the authors of the 1937 O & C Act.

This statement of well considered opinion, based on historical and current fact, is offered, in good faith, by conscientious citizens, to Regional BLM authorities as well. In this instance, by Umpqua Watersheds Board of Directors on behalf of its active and concerned membership, that is; citizens concerned for the increased conservation and restoration considerations necessary for the responsible, long-term management of the remaining public portions of the infamous and unfortunate checkerboard of alternating ownerships in Western Oregon. As well, thereby, for a much-improved contribution by private industrial timberland owners to the environmental, financial, social and yes, to the aesthetic concerns and needs of the public, in whose wider interests the BLM, as indeed, all of government is

enjoined and empowered by that public, to act.

### Hydrological Considerations

In reviewing the Days Creek-South Umpqua Harvest Plan EA, UW was particularly interested in discussions of low summer flow on the analysis area in general, and on the watersheds directly affected by this management proposal, in particular. In that document, we read the following disclaimer:

*“Beneficial uses of water would not be affected by proposed activities. Water quality and quantity of drinking water sources would not be affected, and there would be no cumulative degradation of water quality in the analysis area...”*<sup>9</sup>

And: *“Timber harvest on non-Federal land would continue to occur in the analysis area, although BLM is not aware of any specific timber harvest location or schedule, it is assumed that timber harvest would remain consistent with current non-federal harvesting trends. The BLM assumes the project would be consistent with the Oregon Forest Practices Act, the Clean Water Act and the Endangered Species Act. These acts provide a threshold for water quality and aquatic impact that would suggest that actions affecting water quality and aquatic habitat on non-Federal lands would maintain current conditions.”*<sup>10</sup> (emphasis, UW) In the following numbered comments, Umpqua Watersheds intends to offer explanation as to why these disclaimers appear to it to be specious, in several respects. With that purpose in mind, UW makes the following statements, including references:

1) Continued poor watershed health was a basis of the June 20, 2011 National Marine Fisheries Service (NMFS) decision to retain the “threatened” status of the Oregon coast (OC) coho. NMFS concluded that the combined Oregon Department of Fish and Wildlife/NMFS analysis of freshwater habitat trends for the Oregon coast found little evidence for an overall improving trend in freshwater habitat conditions since the mid-1990s, and evidence of negative trends in some strata. It is UW's unfortunate, if inescapable, conclusion that the primary habitat in the South Umpqua Basin is the actual water flowing (or not, as the case may be) in that river and its tributaries. If this watery habitat is unable to support well restored and viable runs of Coho Salmon etc., how then does BLM feel justified in making the assertions it does, and which we have quoted above?

2) NMFS also concluded that “relying on active restoration to mitigate for the effects of ongoing land management that degrades OC coho salmon habitat is not feasible” and that “the legacy of past forest management practices combined with lowland agriculture and urban development has resulted in a situation in which the areas of highest habitat capacity . . . are now severely degraded.” Needless to say, this conclusion by NMFS certainly seems to cast in doubt the assumption BLM has made above this, concerning private land extractive practices meeting the parameters of the laws it cites therein.

When we read the following alarming, even condemnatory statement in the EA, made in reference to the appalling riparian protections afforded by private industrial timber's clear cut extractive management, conducted under aegis of the Oregon “Forest” Practices Act, UW wonders if everyone at BLM is on the same page, so to speak. That is, these disgraceful practices seem, in this statement, to be fully acknowledged by the authors of the Days Creek-South Umpqua Harvest Plan EA.

Acknowledged yes but, for all practical purposes, ignored: ***“Riparian areas of younger stands on private lands generally lack shade, a condition that is assumed to continue. The lack of shade***

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9 Days Creek-South Umpqua EA, pg. 113

10 Days Creek-South Umpqua EA, pg. 114

***increases the risk for solar heating which can have a host of potential effects on juvenile fish, including but not limited to thermo-regulation and respiration (reduced levels of dissolved oxygen). Fish would continue to be affected by roads that are not maintained, roads that have inadequate drainage, or roads that are unsurfaced which continue to deliver sediment to streams.***<sup>11</sup> Considering the full import of that statement, Umpqua Watersheds feels no compunction in expressing the following observation concerning the BLM and its reaction to the suite of environmentally harmful effects imposed on these shared watersheds by these same OFPA “regulated” clear cut activities: We take BLM's silence for its assent.

3) The Oregon Department of Fish and Wildlife (ODFW) agrees many freshwater environmental impacts on Oregon coast coho are human related, including “rearing and spawning habitat loss.” Even the Oregon Department of Forestry has found its logging practices violate water quality standards.<sup>12</sup> This last, referring, in part, to the infamous “Rip Stream Study,” which indicated that extraction conducted under the current rules of the Oregon Forest Practices Act (OFPA) resulted in regular and long standing chronic violations of the Clean Water Act.

4) The South Umpqua River and many of its tributaries, including some named as being within the analysis area that includes this proposal, are cited by the Oregon DEQ as being 303 (d) listed<sup>13</sup>, under the Clean Water Act. The South Umpqua itself, from its mouth, up to and beyond its confluence with Days and Coffee Creeks is listed for temperature, bacteria, dissolved oxygen, ph, algae, et al. Days Creek, from its mouth to its headwaters, is limited for temperature. Coffee Creek is also listed for temperature, likewise from its mouth to its headwaters. From his participation in the Coquille Basin TDML citizen advisory committee in 2014, '15, UW's Conservation Chair is fully aware that all of these parameters and limitations are often precipitated by, and are always directly, and adversely, influenced by, low summer flows.

5) In this EA, there was extended discussion and analysis by the BLM of the potential for sedimentation of streams, and for such post-harvest hydrological effects as peak flow, under the three considered alternatives. We saw no discussion, let alone analysis of low summer flows and the suite of deleterious impacts it most certainly delivers to streams and rivers, and to the aquatic and terrestrial life forms dependent upon their high-functioning, including we human beings. As with so much of the Coast Range that encompasses portions of the Roseburg District of the BLM, the South Umpqua River drainage, also suffers from chronic low summer flows.

It is an historical, if lamentable, fact that a great deal of the primary forest, which once grew upon and protected the hydrological and other natural functions of this region, has been converted to plantation, or other stand initiation condition, on public and private forest lands in the decades preceding adoption of the Northwest Forest Plan Amendment. This has resulted in an apparent loss, in this area, of societal, agency and industry memory regarding what healthy summer stream flows actually look like. Given all of the immense sylvacultural changes on these watersheds and the resultant hydrological impacts they entail, is it any wonder that native salmonids are in continued decline, or that whole

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11 Days Creek-South Umpqua EA, pg. 119

12 See e.g., Groom, J.D., L. Dent, and L.J. Madsen. *Stream temperature change detection for state and private forests in the Oregon Coast Range*, Water Resources Research, 47.1 (2011), <http://www.science.oregonstate.edu/~madsen/files/GroomDentMadsen2011.pdf>.

13 Chapter 7, Umpqua Basin Water Quality Management Plan, Or. DEQ, 2006, Pp.140, 141

stretches of the Umpqua River become infested with toxic algae blooms?

It is UW's studied opinion that this amounts to a significant omission, one that borders on negligence. A chronic negligence, in fact, and not just by the BLM, but also by an industry and its facilitators, apologists and boosters in local, state and federal government, who dismiss, offhand, or who choose to ignore, the alarming revelations about water quality/quantity in the S. Umpqua and its tributaries, as elsewhere on the Roseburg District. The environmental effects of this badly degraded water condition (winter peak flows and, even worse, low summer flows etc.) are well known. If one can judge from the pertinent statements made in the Days Creek-South Umpqua Harvest Plan EA<sup>14</sup>, the BLM is willing to accept this chronic, badly degraded condition of that portion of the S. Umpqua Basin, as the baseline from which to assess the hydrological/aquatic effects of management actions going forward. *“Not so fast,”* we at Umpqua Watersheds have the temerity to say, *“we can read and comprehend; we have eyes to see! UW will continue to comment publicly about this environmental insult to the watersheds of this area, and beyond. We will comment and, if need be, we will protest, informally and officially, however unpleasant and reluctant for us such protest may be.”*

The BLM's NEPA, O & C Act, Clean Water Act, ESA and general public trust obligations require a serious consideration of this on-going condition by the agency before adding to this lamentable condition by timber sales, which include the creation of yet more large openings. Or by BLM's continued silence in the face of the suite of harmful hydrological and other environmental impacts imposed upon the shared watersheds of this portion of the South Umpqua River by more large clear cuts on adjoining and proximate private timberlands; clear cuts conducted under aegis of the environmentally retrograde Oregon Forest Practices Act.<sup>15</sup> It is apparent to us that these watersheds stand in dire need of remediation, and not of further extraction, as proposed by much of the Days Creek-South Umpqua Harvest Plan EA, and, sooner or later, by industrial timber.

6) UW refers now to recently published paired stream research<sup>16</sup> obtained by Umpqua Watersheds. This, the Perry and Jones (2016) Special Issue Paper, reflects fifty or more years of hard data recorded on the H.J. Andrews Experimental Forest of the Willamette N.F.; and on the South Umpqua Experimental Forest, of the Umpqua N.F. Perry and Jones uses its acquired data to show, definitively, that on watersheds where primary forest has been converted to plantation at a rate of 50% or greater, summer low streamflow remains at only 50% of dry season streamflow in the respective, untreated, reference streams; this impacted streamflow persisting from about fifteen years following initial conversion to the present<sup>17</sup>, a period of some fifty or more years. (Peak winter flows likewise remain

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14 Days Creek-South Umpqua EA, pg. 114: *“The BLM assumes the project would be consistent with the Oregon Forest Practices Act, the Clean Water Act and the Endangered Species Act. These acts provide a threshold for water quality and aquatic impact that would suggest that actions affecting water quality and aquatic habitat on non-Federal lands would maintain current conditions.”*

15 Days Creek-South Umpqua EA, pg. 14: *“Based on past and present practices, it is expected that timber harvest would continue at current rates on private lands. As a result, older harvested areas would reach a point of hydrologic recovery as newer areas are harvested which maintains a constant level of watershed disturbance into the future. No measurable change in hydrologic response would be expected from the proposed action compared to current conditions.”* (emphasis, UW)

16 Perry, T.D., and Jones, J.A. (2016), Summer streamflow deficits from regenerating Douglas-fir forests in Pacific Northwest, USA, *Ecohydrology*, doi: 10.1002/eco.1790

17 *ibid.* Pp. 7, 8 “By 20 to 25 years after clearcutting, summer streamflow was lower in all



outside the baseline norms, which were observed on those same respective reference streams.) To quote from Perry-Jones: *“This study showed that, relative to mature and old-growth forest dominated by Douglas-fir and western hemlock or mixed conifers, forest plantations of native Douglas-fir produced summer streamflow deficits within 15 years of plantation establishment, and these deficits have persisted and intensified in 50-year-old forest stands. Forest stands in the study basins, which are on public forest land, are representative of managed (including thinned) forest stands on private land in the region, in terms of basal area over time (Figure 3), age (10 to 50 years), clearcut size (20 ha), and average rotation age (50 years) (Lutz & Halpern, 2006; Briggs, 2007). There are no significant trends in annual or summer precipitation (Abatzoglou, Rupp, & Mote, 2014) or streamflow at reference basins over the study period. This finding has profound implications for understanding of the effects of land cover change, climate change, and forest management on water yield and timing in forest landscapes.”<sup>18</sup>* (emphasis, UW)

And: *“Long-term paired-basin studies extending over six decades revealed that the conversion of mature and old-growth conifer forests to plantations of native Douglas-fir produced persistent summer streamflow deficits of 50% relative to reference basins, in plantations aged 25 to 45 years. This result challenges the widespread assumption of rapid “hydrologic recovery” following forest disturbance. Widespread transformation of mature and old-growth forests may contribute to summer water yield declines over large basins and regions around the world, reducing stream habitats and sharpening conflict over uses of water.”<sup>19</sup>* (emphasis UW)

While UW realizes that this data is not, strictly speaking, site specific to that portion of the foothills of the Oregon Cascade Range encompassed by the Days Creek-South Umpqua Harvest Plan EA, it also notes that this proposal shares the same over all river basin with the South Umpqua Experimental Forest.

7) Furthermore, logic strongly suggests that the dire hydrological inferences UW believes it has justifiably made for this portion of the Cascade Range, and which are based on its careful reading of the Perry and Jones paper, must be amplified here, in the Days Creek-South Umpqua Harvest Plan EA analysis area, where so much of the primary forest has been converted to plantation, during the decades cited above, under a misguided version of the over-applied and often over-optimistic sustained yield model of forest management. This must be especially so, where so very much of the landscape, which is the physical context of the Days Creek-South Umpqua Harvest Plan EA, has been and continues to be treated to the full suite of environmental insults, hydrological and otherwise, currently so evident on privately owned industrial lands, within the checkerboard. Hydrologically speaking, chief among these are the continued, relatively short rotation liquidation of large plantation stands and their replacement with still more monoculture replanting. Thus, hydrologic recovery of low summer flows is, by logic, chronically prevented.

Arguably, mitigating factors, vis a vis negative stream flow impacts, are present on the South Umpqua Experimental Forest at the Coyote Creek Paired Stream Study site today, which are not currently present in the Days Creek-South Umpqua Harvest Plan EA area. That is, it has been a considerable time since the Forest Service, or the Tiller Ranger District in particular has regenerated any of its

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plantation forests compared to reference basins.”

18     ibid., Pg. 8, Discussion

19     ibid., Pg. 11, Conclusions

holdings (nor does it currently propose to do so, at or near this or any location which UW is aware of). The Forest Service has not employed Variable Retention Harvest (VRH) on its holdings here, or elsewhere on the Umpqua National Forest. BLM has used or has proposed the use of VRH, a management model that creates large openings of its own, on the area of the adjacent Myrtle Creek Harvest Plan. Likewise, the ubiquitous, large and arguably damaging private land clear cuts, so evident in the South Umpqua Basin in the area of the Days Creek-South Umpqua Harvest Plan EA are largely not to be found proximate to the South Umpqua Experimental Forest. Given this contextual consideration, UW believes it is most doubtful that harmful impacts to streamflow, quantity and quality, can be anything but comparable or worse within the Days Creek-South Umpqua Harvest Plan EA area, in general.

**8)** UW strongly asserts that this latest scientifically rigorous study, Perry and Jones (2016), raises serious questions about the validity of BLM's repeated use of Equivalent Clear Cut Area (ECA) etc., to justify the post-harvest hydrologic integrity of such actions as are proposed in the Days Creek-South Umpqua Harvest Plan EA and other extractive activities; management actions, which must be inappropriate on such obviously degraded watersheds, where adequate summer low streamflows must, by simple application of logic, be already severely compromised? Here, in the year 2017, even a cursory reading of the 1937 O & C Act, with its mandates concerning watershed protection and streamflow regulation, would appear to indicate, to any reasonable citizen participant of average intelligence, in the NEPA and other regulatory processes, that major chronic violations of those conservation mandates included in the O & C Act already exist before even a single acre is subjected to variable retention harvest (VRH) or commercial thinning (CT) by the BLM.

**9)** Needless to say, this chronic hydrological impairment is accompanied, in the checkerboard of alternating ownerships, by severe impacts to connectivity, biodiversity, maintenance and restoration of listed species, carbon sequestration/mitigation, etc. not only by the past conversion of primary forest to plantation on a grand scale on public and private forestlands in the area of the Days Creek-South Umpqua Harvest Plan EA, but continuously by the on-going clear cut harvest activities so ubiquitous on adjoining and proximate private industrial timberlands to this very day.

Certainly, in most respects, clear cuts conducted under aegis of the Oregon Forest Practices Act (OFPA) impose significant negative impacts<sup>20</sup> on neighboring public lands, such as those included in this proposal. This cumulative suite of harmful impacts is incontrovertibly demonstrated on these surrounding, privately owned industrial lands by the paucity of conservation measures and the remarkable absence of true restoration provisions included in harvests conducted thereon; impacts which are not mitigated but only exaggerated by the unnatural and repeated imposition of monoculture fiber farm plantations on these watersheds. Clearly, these private land clear cut activities run counter to the recovery strategies outlined in the landmark Northwest Forest Plan.

We read, in the Days Creek-South Umpqua Harvest Plan EA, the following disclaimer: *“Based on past and present practices, it is expected that timber harvest would continue at current rates on private lands. As a result, older harvested areas would reach a point of hydrologic recovery as newer areas are harvested which maintains a constant level of watershed disturbance into the future. No measurable change in hydrologic response would be expected from the proposed action compared to current*

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20 See UW Comments, Days Creek-South Umpqua Harvest Plan EA, Pg. 20, 21

conditions.”<sup>21</sup> (emphasis, UW's) Thus, the BLM appears to acknowledge this baseline hydrologic condition, but offers no mitigating measures to offset it. How, precisely, does this inaction help to protect watersheds or regulate streamflow? After all, the O & C Act talks not about “BLM Watersheds,” or, conversely, privately owned watersheds, but simply tasks BLM with protecting watersheds, period.

And again: “*Timber harvest on non-Federal land would continue to occur in the analysis area, although BLM is not aware of any specific timber harvest location or schedule, it is assumed that timber harvest would remain consistent with current non-federal harvesting trends.*”<sup>22</sup> (emphasis, UW's) As stated immediately above this, UW observes the BLM acknowledging this contextual landscape condition. Again, however, the agency offers no constructive or corrective comment on adjacent or proximate OFPA “regulated” extraction, nor does it offer the requisite restorative actions on public lands but rather, proposes the creation of still more large openings and further stand initiation, however construed.

**10)** The Water Quality portion of the Days Creek-South Umpqua EA discusses flow, temperature, turbidity etc. Peak flow is analyzed but other than the following disclaimer: “*This analysis assumes no hydrologic recovery from past harvest analyzed in the 2008 FEIS, that current level of harvest activity on private lands remains the same, and that all acres proposed for harvest in connection with this project would have less than 30 percent crown cover, post-implementation.*” there appears to be no discussion or analysis concerning summer low streamflow included therein. Clearly, low summer flows equate to high temperatures, decreased dissolved oxygen levels, increased bacterial presence and subsequent impaired survival chances for fish and other aquatic species. Indeed, the South Umpqua River et al., as mentioned above,<sup>23</sup> are listed by the Oregon DEQ as being 303 (d) impaired under the Clean Water Act for several of these parameters.<sup>24</sup>

At the same time, Jones and Perry strongly suggests that these watersheds are likely impacted, to a significant extent, by such harmful low flows, low flows not accounted for in the Days Creek-South Umpqua EA. Having been an active participant Oregon DEQ's TDML citizen advisory panel for the Coquille River, in 2014/15, UW's Conservation Chair is all too well aware that low flows exacerbate already deficient dissolved oxygen levels, bacterial presence, excessive elevated temperature and other parameters essential to the persistence of aquatic species, as well as for the health of terrestrial species, including human beings. UW strongly suggests that a credible discussion and subsequent analysis of the detrimental impacts of private land clear cuts, short or long term, on low summer streamflows etc. be undertaken before any decision documents are issued for this proposal.

*“Riparian areas of younger stands on private lands generally lack shade, a condition that is assumed to continue. The lack of shade increases the risk for solar heating which can have a host of potential effects on juvenile fish, including but not limited to thermo-regulation and respiration (reduced levels of dissolved oxygen). Fish would continue to be affected by roads that are not maintained, roads that have inadequate drainage, or roads that are unsurfaced which continue to deliver sediment to*

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21 Days Creek-South Umpqua Harvest Plan EA, Pg. 14

22 *ibid.* pg. 113

23 UW Comments, Days Creek-South Umpqua Harvest Plan EA

24 Chapter 7, Umpqua Basin Water Quality Management Plan, Or. DEQ, 2006, Pp.140, 141

*streams.*”<sup>25</sup> Considering this generally applicable denigrating description of harmful riparian, and by extension, damaging hydrological impacts to water quality/quantity attributable to the clear cut extractive practices conducted on private industrial timberlands under aegis of the OFPA, UW takes exception to the lack of consideration and analysis by the BLM of how these harms impact the public lands it manages in trust for all of the people of the United States of America. Likewise, UW questions the lack of analysis of the added detrimental impacts to low summer streamflows of VRH and CT, especially in stands over 100 years, on the public lands of the Days Creek-South Umpqua EA.

Finally, UW is well aware that low summer flow and the suite of detrimental conditions precipitated and exacerbated by such low flows are chronic in this portion of the South Umpqua River Basin. At this point, it is no stretch of the available data to believe that this unfortunate environmental state is unlikely to have been mitigated by on-going insults to hydrologic function via extractive activities on so many of the private timberlands in the project area, as elsewhere in the wider S. Umpqua drainage. In the interest of public and wildlife health, no more large openings should be sited in these badly impaired watersheds at this time. Past and current extractive activities thereon have rendered these watersheds out of compliance, not only with the 1937 O & C Act, but with the Clean Water Act, as well! UW objects to their renewed creation by the BLM.

Exceptionally low rainfall, high temperatures and low humidity during the summer months of 2014, and even more so during the same period in 2015 resulted in exceptional low flows throughout the S. Umpqua River, as in so many of the rivers in our region. While the drought-like conditions experienced in these two years has been attributed, in large part, to the cyclical weather pattern known as el Nino, a preponderance of credible scientific opinion predicts the strong possibility of longer, deeper and more frequent seasonal droughts in Oregon. Logic suggests that the low summer flows definitively reported by Perry-Jones can only be exaggerated under these predicted climate change effects. *“Species that spend all or part of their time in rivers, including salmon, steelhead and trout, will suffer from decreased summer flows and increased flooding and winter flows.”*<sup>26</sup>

Finally, UW feels it is appropriate to note, in these comments, that a reach of the South Umpqua River, extending upstream from Camp Comfort to Tiller, has been selected, from among many other worthy nominations, by the Oregon Department of Parks and Recreation, for serious consideration going forward, of an official Scenic Waterway designation.<sup>27</sup> Surely, the real possibility for such a locally and regionally important designation, even its winnowing from among numerous other serious competitors, ought to be sufficient reason for the BLM to account for and act upon these impaired river and stream parameters, doing its part to help remediate the disgraceful condition of this so-honored basin.

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25 Days Creek-South Umpqua Harvest Plan EA, Pg. 119

26 United States Environmental Protection Agency, Climate Impacts In the Northwest, Impacts on Ecosystems and Agriculture <https://www.epa.gov/climate-impacts/climate-impacts-northwest>

27 The Oregon State Scenic Waterway program (<http://bit.ly/scenicwaterways>) was created in 1970 through a ballot initiative. The law says recreation, fish, and wildlife are the highest and best uses of water in a scenic waterway. New scenic waterways may be designated through ballot measure, by the legislature, or by the governor.

**Regarding Claims Made in the Days Creek-South Umpqua Harvest Plan EA Relative to the Continued Survival and Ultimate Restoration of the Northern Spotted Owl**

1) *“The northern spotted owl is a threatened species, present throughout the Roseburg District. It is the only threatened or endangered terrestrial species in the analysis area.”*<sup>28</sup> And: *“Alternative B Modified includes application of VRH in 396 acres of suitable northern spotted owl habitat, representing one percent of the available suitable habitat. Additionally, application of thinning would downgrade suitable habitat function to dispersal habitat function (Alt. B Mod. = 645 acres, Alt. C = 1,043 8 acres) which is two to three percent of the suitable habitat in the analysis area. Under the action alternatives, the analysis area would reduce suitable habitat from approximately 53 percent to approximately 51 percent. (EA, Section 3.5.2, Table 3-9)”*<sup>29</sup> With those statements in mind, UW notes the following facts: Northern Spotted Owl (NSO) populations are declining at a rate of 3.9% per year on average. Thus, the NSO is being considered for upgrading to “endangered,” since, alarmingly, the remaining population levels are currently estimated to be only between 55-70% of what they were at the time of listing!<sup>30</sup> At a time when that feathered interloper, the Barred Owl, is having a palpable impact, the question of conserving quality NSO habitat is more important than ever before; important, that is, if the NSO is to have any credible chance at survival.

2) *“Effects of the project are likely to enhance the quantity and quality of suitable northern spotted owl habitat in thinned areas by accelerating the development of older forest with structural characteristics that should support adequate levels of northern spotted owl prey as well as provide improved habitat for nesting and roosting (EA, Sections 3.3.2 and 3.4.2).”*<sup>31</sup> “Likely” to enhance? Such well regarded NSO authorities as Eric Forsman and Robert Anthony have said that there is credible doubt as to whether the above-quoted statement is accurate. As Forsman and Anthony appear to, UW also believes that overmuch of this assertion is speculative. Given the dire and downward-trending statistics cited by us in paragraph #1, it seems, to UW, that there is not time enough left to engage in the kind of speculative, untested experimentation represented by removing or downgrading any currently suitable NSO habitat.

3) In that vein, UW also notes this statement, made in the Days Creek-South Umpqua Harvest Plan EA: *“Lint et al. (2005) noted that loss of northern spotted owl habitat did not exceed the rate expected under the Northwest Forest Plan, and that habitat conditions were no worse, and perhaps better than expected. In particular, the percent of existing northern spotted owl habitat removed by harvest during the first decade was considerably less than expected. Courtney et al. (2004) also indicated that models of habitat growth suggested significant in-growth and development of habitat throughout the Federal landscape.”*<sup>32</sup> In choosing to use this disclaimer, the BLM again gives the appearance of ignoring the ongoing destruction of NSO habitat and concomitant loss of connectivity, biodiversity etc., along with the subsequent greatly increased “edge effect” imposed on these shared, public/private landscapes by private timberland clear cut extraction, with all of its ancillary and harmful environmental consequences.<sup>33</sup> These repeated large clear cuts also adversely affect NSO prey species, such as the

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28 Days Creek-South Umpqua Harvest Plan EA, Pg. 75

29 Days Creek-South Umpqua Harvest Plan EA, Draft FONSI, Pp. 7, 8

30 Dugger et al, 2011

31 Days Creek-South Umpqua Harvest Plan EA, Draft FONSI, Pg. 7

32 Days Creek-South Umpqua Harvest Plan EA, Pg. 80

33 See UW Comments, Days Creek-South Umpqua Harvest Plan EA, Pg. 20, 21

RTV and flying squirrels. If not for the heavy, often repeated use of aerially applied herbicides, the large amount of early seral habitat, which would naturally follow clear cutting, would likely boost wood rat populations. Alas, the timber industry does spray, often more than once, thus truncating or eliminating most quality early seral benefits to wildlife and their prey.

This environmentally regrettable ownership/management arrangement is all too common on the watersheds included in the Days Creek-South Umpqua Harvest Plan EA, as elsewhere on the Roseburg and other Districts of the BLM, in Western Oregon. (Indeed, the USFWS seems to have chosen a similar “ignorance is bliss” habitat analysis, as well.) As stated above, if the NSO is to have any real chance at survival, then this purview, going forward, simply will not do.

To date, the BLM does not seem willing to exercise its right nor to fulfill its public trust obligations, as they relate to constructive, meaningful and effective criticism of the extractive practices so regrettably in evidence on adjoining and proximate private industrial timber lands, particularly, in this instance, as they adversely affect the conservation and ultimate restoration of the NSO.

Not only do these private clear cut operations harm the survival and recovery of the NSO and other listed species on their own holdings, but they also serve to obviate those efforts on public forestlands managed by the BLM (as well as the USFS). Given such a lamentable impasse, in the cooperation between public and private resource management, (a collaborative, which was clearly envisioned and publicly enunciated by the originators of the 1937 O & C Act<sup>34</sup>) it is UW's studied opinion that the BLM must mitigate, on the public lands it manages, for the on-going habitat destruction on adjoining and proximate private industrial timberlands. Creation of still more large openings by use of Regeneration Harvest, whether it be variable or not, and reduction of canopy cover via commercial thinning in older stands will surely not be counted as such requisite mitigation by any objective, common sense arbiter, whether they be a science professional or the more casual citizen-observer. In short, if the contribution from the private timberlands, as envisioned under the 1937 O & C Act, the NWFP and ESA had been forthcoming, then it follows that the BLM's management options would now be greater. For the most part, it is obvious that the requisite private environmental contribution has not now, nor has it ever been appreciably forthcoming<sup>35</sup>, and that therefore, the BLM must not impose further harmful impacts, of any degree, on the imperiled NSO.

4) *“The action would improve long-term habitat quality, complexity, and resilience to support northern spotted owl recovery due to factors in harvest prescriptions and unit design, including the fact that 20 to 30 percent of the basal area in VRH units would be retained (EA, Section 2.2.1). Untreated aggregate areas and dispersed retention trees would provide dispersal connectivity. The long-term*

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34 Price, Frank N., 2005, Pg. 7, Protecting Watersheds, Regulating Stream Flow, and Providing Recreational Facilities: The Intent of this Language in the O & C Act, Early Interpretation and Historic Context: *“An intent of the act was to bring both the O & C lands and the intermingled private lands under sustained yield using cooperative management agreements. The act was also intended to bring about conservation of nontimber resources (i.e. protect watersheds and regulate stream flows) across both public and private lands within each sustain-yield unit.”*

35 Days Creek-South Umpqua Harvest Plan EA, Pg. 8, *“Northern spotted owl occupancy of known home ranges would continue to be primarily influenced by factors such as private land management, habitat availability, barred owls, and predators.”*

*creation of complex habitat would provide higher quality habitat conditions sooner than leaving the stands untreated (EA, Sections 3.3.2 and 3.5.2). Planting and stand maintenance would effectively promote the development of trees with structural features that are beneficial to northern spotted owl, especially in combination with the continued presence of older trees in untreated areas and the dispersed retention trees (EA Sections 2.2.1, 3.5.2)."*<sup>36</sup> UW's reading appears to indicate that this statement has no peer reviewed scientific data cited to support such a broad assertion. Citing the EA itself, as BLM has done in the draft FONSI, is not, in UW's estimation, enough.

It seems to UW that assertions made by BLM, such as those quoted above, would need to be substantiated with scientifically supported documentation. We may be mistaken or remiss in our volunteer researches, but such formal and requisite peer reviewed papers do not currently exist. (We are, however, willing to be corrected.)

Furthermore, then Secretary of the Interior, Alberto Salazar, explained to UW and others in attendance at the Douglas County Fairgrounds, some years ago (2009, '10?), that the Variable Retention Harvest extractive model (aka Ecological Forestry, or "Norm and Jerry") was to be conducted on an experimental, or "pilot" basis, testing several parameters, including effect on listed species, by means of careful, post extraction monitoring. It appears to UW that such monitoring has not taken place. Or, if it has, that no one has published a credible (i.e., peer reviewed) post-monitoring analysis of such collected, site specific data. It was and remains UW's understanding that such follow-up was to be a prerequisite before the VRH extraction model was more widely applied. How quickly, it seems, we forget; and how readily political, financial and bureaucratic convenience appear to have taken precedence over environmental necessity.

**5)** *"Both action alternatives include proposed harvest in the core area of six occupied northern spotted owl sites. Three occupied sites (0568O, 1809B, 4538O) are above the suitable habitat viability threshold at the core area scale and three sites (0247A, 0569O, 1998O) are below the threshold. The viability status of five of these sites would not change under either action alternative. (EA, Section 3.5.2)"*<sup>37</sup> It seems to UW, given the parlous state of the threatened NSO, that there should be no entry into spotted owl core areas, where the site is still occupied or where the site has been shown to be reproductive in the past. Spotted owls, we are informed, can reoccupy sites.

The declining reproductive rates of spotted owl populations indicates, to UW, that **all** parties should be endeavoring to protect **all** core areas, not just nest patches, so as to give the spotted owl the best chance of reproducing. Once nesting, it has been shown by a graduate student at OSU<sup>38</sup>, who investigated the lifetime reproductive output of spotted owls, that just 17% of female spotted owls are responsible for over 50% of the reproductive output. This indicates that the nesting females are quite important to continued reproductive output, and that these sites and these individual owls should be protected from **any** alteration or degradation of the habitat in the area where they have reproduced or where,

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36 Days Creek-South Umpqua Harvest Plan EA, Draft FONSI, Pg. 8

37 *ibid.*, Pg. 8

38 Loschl, Peter J., Age-Specific and Lifetime Reproductive Success of Known Age Northern Spotted Owls on Four Study Areas In Oregon and Washington, Oregon State University, March 31, 2008

<https://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/8317/Loschl%20MS%20thesis%20Final%2010%20April%202008.pdf?sequence=1>

potentially, they might.

6) “Under both action alternatives, reducing suitable habitat in site 05680 below 250 acres compromises the viability of the site and use of this core area is not expected to continue in the long-term.”<sup>39</sup> As an example, this statement, by our reading, very nearly admits that the BLM has written off this and other sites and, thereby, is intentionally causing harm. Incidental or not, this action appears, to UW, to be an admission, by the BLM, that a reduction below the level requisite for the survival, at this site, of a pair of spotted owls, would be the likely result of its proposed action.

7) UW has grave concerns for two of the principal prey species (RTV and Flying Squirrels) for the NSO, following so much CT in older stands, and the creation of so many large openings by means of VRH, as proposed in the Days Creek-South Umpqua Harvest Plan EA. With that concern in mind, we quote from a study of thinning, vis a vis NSO prey species: “*Thinning has been promoted as a method for accelerating the development of late-seral habitat and improving the overall health and function of young forests in the Pacific Northwest. Population studies have shown early and positive responses to thinning by some small forest-floor mammals (primarily mice, terrestrial voles, and shrews). However, thinning reduces the abundance of some tree-dwelling rodents, especially Northern Flying Squirrels (*Glaucomys sabrinus*) and Red Tree Voles (*Arborimus longicaudus*), that are important prey species for Northern Spotted Owls (*Strix occidentalis caurina*). (emphasis, UW) Recent studies suggest that reductions in Northern Flying Squirrel abundance following thinning may be driven by increased susceptibility to predation created by removal of critical above-ground cover. Predation, lack of canopy connectivity, and reduction in suitable nest substrates may all contribute to reduced Red Tree Vole abundance following thinning. The long-term benefits of some thinning treatments may be positive for both flying squirrels and Red Tree Voles, but may not be realized for several decades or more (emphasis, UW), as the development of a midstory layer of trees may be critical to the success of thinning in promoting habitat for these species.*”<sup>40</sup>

And: “*When there is a high degree of occlusion in the midstory (e.g., high stem density, deep crowns, live crowns in the midstory layer, with few canopy gaps across the stand), it provides sufficient protection for squirrels to attain and sustain relatively high population levels. Even with relatively high predation rates (e.g., during spotted owl breeding years), enough female squirrels can survive each year in these forests to quickly restore populations to a relatively high level. In contrast, when there are too many gaps, too many large gaps, lack of a midstory canopy layer, or overall low stem density, squirrels succumb to predation pressure and few squirrels survive to reproduce.*”<sup>41</sup>

As regards the Flying Squirrel, we may have overlooked it, but UW did not find much in the EA by way of analysis involving this important NSO prey species. Indeed, the flying squirrel, in its capacity to spread seeds and nuts of various useful species, is also important for distribution of mychorizal fungi through the forest it inhabits, as well. These fungal mycelial relationships with tree and other roots being, of course, important components of a healthy, high-functioning forest ecosystem. This, in contrast to the sterile, monoculture fiber farms so ubiquitous on the aforementioned private industrial timberlands in the analysis area, as elsewhere within the confines of the Roseburg District. In that

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39 Days Creek-South Umpqua Harvest Plan EA, Draft FONSI, Pg. 9

40 Wilson Todd M and Forsman, Eric D., 2013, Thinning Effects On Spotted Owl Prey and Other Forest-dwelling Small Mammals Pg. 1

41 *ibid.*, Pg. 4



regard, we offer the following suggestion from the Wilson and Forsman paper: *“Of particular importance would be evaluating habitat in areas within and outside the range of the Northern Spotted Owl where there have been few or no population-level studies.....For flying squirrels, these include mixed conifer forests in southwestern Oregon...”*<sup>42</sup> Such research, UW feels, would not be out of place in this EA, nor in an EIS, it goes without saying.

With these observations from these two well respected NSO authorities in mind, UW refers to table 3-21 of the EA. This table indicates that the RTV analysis blocks containing the largest numbers of detected RTV sites are also located in some of the very oldest stands proposed for either VRH or CT, depending on alternative, in the area covered by this EA. Block # 4 contains units slated for either VRH or CT, the oldest of which are 99, 106 and 117 years, respectively. Block # 7 contains two stands of 117 years each, slated for either VRH or CT. Block # 12 contains three units of 150 years, one unit aged 133 years, and one unit at 106 years. To more cynical eyes than ours, the siting of these management choices would appear to be deliberately preferring financial, political and bureaucratic considerations<sup>43</sup> over the existential considerations of the rapidly declining NSO!<sup>44</sup>

Compounding the potential for harmful impacts to RTV in Block # 7 is the fact that there is no connectivity from here to other BLM lands. This must be seen as a further cumulative impact, over and above the mature age class of the stand proposed for CT, in and of itself.

Making matters worse and adding to the potential for harmful cumulative impacts, is the location of the blocks nos. 2 and 3. These are described as being “...surrounded by private industrial forest lands”. Given BLM's acknowledgement of how such private lands are likely to be managed now and in future, putting these active RTV sites in peril by means of VRH and CT is unacceptable, again given the parlous state of the NSO.

In summation, vis a vis NSO prey species potentially imperiled by the extractive proposals made in this EA: *“Given the moderate amount, distribution and fragmented BLM ownership within these six 6th-field watersheds, connectivity within and between watersheds will likely be reliant on young forest habitat on private lands.”*<sup>45</sup> Dependent for connectivity on young private lands? Isn't that just a little like one having depended upon the RMS Titanic for safe passage across the North Atlantic, in 1912? That statement from the EA offers little to no reassurance at all. However, at least it does appear to acknowledge the existence and condition (i.e., “young forest”) of adjoining private industrial lands; young forest, that is, if it has not, like so much private land within the bounds of the Roseburg District, been recently clear cut, or “slicked off,” if you will.

Again reading from Wilson and Forsman, we find this further warning: ***“Extra effort will be needed to ensure that the short-term negative effects of thinning on some owl prey species do not have long-***

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42 Wilson Todd M and Forsman, Eric D., 2013, Thinning Effects On Spotted Owl Prey and Other Forest-dwelling Small Mammals Pg. 8

43 Days Creek-South Umpqua Harvest Plan EA, Draft FONSI, Pg. 2, *“Thinning and VRH would provide timber for manufacturing that would include a wider range of log sizes and grades that would allow for manufacture of specialty timber products.”*

44 UW Comments, Days Creek-South Umpqua EA, Pg. 12

45 Days Creek-South Umpqua EA, Pg. 206

*term negative consequences for owls or their prey.”*<sup>46</sup>

8) Much as with its repeated disclaimers concerning the carbon releasing effects of its extractive actions on climate change, all of these repeated, incremental harms imposed upon NSO habitat and viability can only serve, ultimately, to deliver death to the NSO by a thousand cuts, as it were. When UW went to school, 1 + 1 equalled 2, 2 + 2 equalled 4 and so on. To the best of our knowledge, they still do. When, timber sale following timber sale, more and more harms thereby accrue to this dangerously threatened owl, UW is at a loss to understand the BLM's (or the USFWS's) oft-repeated disclaimers denying cumulative impacts to the NSO. As stated above, when these admitted incremental BLM harms are added to the incontrovertible and much greater incremental harms done to the NSO's survival, let alone to its ultimate recovery, by the extractive practices permitted on adjoining and proximate private timberlands, by the retrograde strictures of the OFPA, we cannot help but ask if the ESA, NEPA etc. are worth much more than the paper on which they are written?<sup>47</sup>

9) In support of this view, UW thinks it useful, at this point, to reiterate the words of Walter H. Horning, principal author and the original explicator of the 1937 O & C Act: ***“Both public and private lands committed to the [sustained-yield cooperative] agreement shall be subject to public recreational use, including hunting and fishing. Adequate safeguards shall be provided for fish and wildlife conservation, for the protection of water supplies, and for preservation of scenic values.”***<sup>48</sup> Whatever positions the BLM, or private industrial timber and its facilitators and apologists in county, state and federal governments may have subsequently adopted, vis a vis the mandates of that seminal law, the above quoted views of Walter Horning ought to serve, in UW's opinion, as a useful corrective.

10) UW notes the following general statement by the BLM concerning the conformity of this project with the 2011 NSO Recovery Plan: *“The action alternatives in the Days Creek-South Umpqua River Harvest Plan are consistent with the 2011 Northern Spotted Owl Recovery Plan recommendations to implement disturbance-based management within the range of the northern spotted owl with the goal of maintaining or restoring forest ecosystems structure, composition, and processes so that they are sustainable under current and future climate conditions (USDI/FWS 2011a, p. III-13).*

*Forest structural complexity in treated areas would develop at a faster rate than if left untreated. Thinning would accelerate development of nesting habitat and create gaps large enough to allow growth of grasses, forbs (sic), shrubs, and hardwoods that would support prey populations.”*<sup>49</sup>

Over against these claims of conformity with the recovery plan, we note this statement made in the EA: ***“Acres of northern spotted owl suitable habitat modified or removed*** *Cumulatively, thinning would modify approximately 815 acres (2.4 percent) of the available suitable habitat in the analysis area (Table 3-16) under Alternative B Modified and 1,213 acres (3.5 percent)*

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46 Wilson Todd M and Forsman, Eric D., 2013, Thinning Effects On Spotted Owl Prey and Other Forest-dwelling Small Mammals Pg. 9

47 LNEPA: *Environmental Assessment Item 7: Whether the action is related to other actions with individually insignificant impacts but cumulatively significant impacts.* - 40 CFR 1508.27(b) (7).

48 Price, Frank N., 2005, Pp. 7, 8, Protecting Watersheds, Regulating Stream Flow, and Providing Recreational Facilities: The Intent of this Language in the O & C Act, Early Interpretation and Historic Context.

49 Days Creek-South Umpqua EA, Pp. 90, 91

*under Alternative C. Thinning would downgrade suitable habitat to dispersal habitat function. Cumulatively, VRH would remove approximately 537 acres (1.5 percent) of the available suitable habitat in the analysis area under Alternative B Modified and 137 acres (0.4 percent) under Alternative C. Habitat removed would function as dispersal habitat in approximately 40 years and suitable habitat in approximately 80 years. Under both action alternatives, thinning would modify approximately 89 acres (0.3 percent) of suitable habitat but habitat function would be maintained because at least 60 percent canopy cover would be retained (Table 3-16). Given that 97 to 98 percent of the available suitable habitat would remain in the analysis area, northern spotted owls would continue to use the landscape for nesting, roosting, and foraging.”<sup>50</sup>*

Immediately following, we note the figures presented in Table 3-16, which purport to represent the total of both suitable and dispersal habitat affected by management proposed or undertaken in the Days Creek-South Umpqua Harvest Plan EA analysis area, by the BLM. Acres affected on the following locations are presented: White Castle Timber Sale, Myrtle Creek Harvest Plan, Days Creek-South Umpqua Harvest Plan. Glaringly absent is the total number of suitable or dispersal acres affected on private lands. UW appreciates that there might no longer be very much in the way of “suitable” NSO habitat remaining on those private timberlands, the very lands, which in 1948 the Interior Department directed: “**Both public and private lands committed to the [sustained-yield cooperative] agreement shall be subject to public recreational use, including hunting and fishing. Adequate safeguards shall be provided for fish and wildlife conservation, for the protection of water supplies, and for preservation of scenic values.**”<sup>51</sup> We are all well aware that this directive has now, and for some time, been honored, if at all, in the breach. Nonetheless, to say that Table 3-16 gives the concerned reader an accurate picture of current habitat conditions, on this analysis area, for the NSO, that feathered member of the great clan “Wildlife,” is misleading, if not specious. Is this same concerned reader of this EA able, then, to fairly judge the claims made by the BLM regarding the actual, cumulative impacts of its actions on the survival and ultimate recovery of this imperiled benchmark creature? Unfortunately, UW believes that question can only be answered with a resounding no! How then, we ask, does this management proposal conform with the 2011 directive, or any other reasonable guide to the conservation and ultimate restoration of the NSO? It does not.

11) Worse yet for both the BLM's and the USFWS's credibility on this issue are the facts brazenly presented in Table 3-13 of this EA. Therein, proposed extractive treatments in a total of six NSO sites, last occupied in 2014, 2015 and 2016 are shown. With affected acreage ranging from one to forty-nine, and with canopy closures, post-extraction, intended to be brought as low as 5% if VRH is applied, or 40% on all but one unit where CT is proposed, this proposal is shown to fly, almost cynically, in the face of the plan's conformity with the recovery plan, claimed for it, above.

12) UW notes that unit 30-05-10D was, at one point, a designated Biological Study Area. (Signage so indicating remains on site.) UW wonders why results flowing from this admitted study area were not included in the EA? In addition, a site visit revealed significant damage here from illegal OHV use. We would have thought this had been at least brought to the public's attention in the EA, as proposed logging is likely, we think, to increase this problem. As a side note, there is quite a bit of trash thrown

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50 Days Creek-South Umpqua EA, pg. 91

51 Price, Frank N., 2005, Protecting Watersheds, Regulating Stream Flow, and Providing Recreational Facilities: The Intent of this Language in the O & C Act, Early Interpretation and Historic Context., Pp. 7, 8

about in this area. (UW recognizes that this sorry condition likely says more about the slovenly habits of certain members of the public, than it does about any shortcomings of BLM's hard-pressed law enforcement personnel.)

Lastly, since some of these units lie within a mile of the City of Canyonville, shouldn't recreation, the third ancillary mandate the 1937 O & C Act enjoins the BLM to manage for, have been discussed in the EA at greater length? As with the watershed protection and regulation of stream flow mandates, we believe that this is a consideration of growing aesthetic and financial concern to the public and deserves its place alongside these, as well as the vaunted sustained yield management model, this last so heavily over-emphasized on public lands in past decades, to the obvious detriment of these other critical parameters.

### **Considering Cumulative Impacts, In General**

Umpqua Watersheds, for reasons stated previously in these comments<sup>52</sup>, takes strong exception to the following disclaimer, made by the BLM regarding cumulative impacts: *“The interdisciplinary team considered and analyzed the alternatives in the context of past, present, and reasonably foreseeable actions. No cumulatively significant effects to the following resources are predicted from implementation of the alternatives: Recreation and Off-Highway Vehicle Use, Visual Resources, Special Status and Survey and Manage Plants, Noxious Weeds, Cultural and Historical Resources (EA, Section 1.5.2); Timber Resources (EA, Sections 3.3 and 3.4); Wildlife Resources (EA, Sections 1.5.2, 3.5, 3.6, 3.7, and Appendix C); Fish, Aquatic Habitat and Water Resources (EA, Sections 1.5.2, 3.8, 3.9, Appendix F); Soils (Section 3.10); Fuels Management (EA, Section 3.11); and Carbon Storage and Release (EA, Section 3.12).*

*As stated previously, the 1994 PRMP/EIS and 1995 ROD/RMP predicted the amount of regeneration harvest that would occur each decade, and given that less than ten percent has been implemented to date we are well below the amount of harvest authorized under the RMP, hence we are below the thresholds of significance set forth in those documents.”*<sup>53</sup>

The extractive activities proposed in the Days Creek-South Umpqua EA, if they are adopted, will occur subsequent, or previous to, extractive clear cut activities on adjacent and proximate, private industrial timber lands<sup>54</sup>. The impacts from the BLM's extractive and related activities in these watersheds will be in addition to those private clear cuts, including all of their ancillary and harmful impacts. These several damaging impacts to public lands in the Days Creek-South Umpqua EA Analysis Area (as on the entire Roseburg District), from on-going extractive activities conducted on private industrial holdings, conducted under aegis of the retrograde environmental provisions of the Oregon Forest Practices Act, include but are not limited to:

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52 UW Comments, Days Creek-South Umpqua EA, Pg. 10: ***“The O & C Act talks not about “BLM Watersheds,” or, conversely, privately owned watersheds, but simply tasks BLM with protecting watersheds, period.”***

53 Days Creek-South Umpqua Harvest Plan EA, Draft FONSI, Pp. 6, 7

54 Days Creek-South Umpqua EA, pg. 114, *“Timber harvest on non-Federal land would continue to occur in the analysis area, although BLM is not aware of any specific timber harvest location or schedule, it is assumed that timber harvest would remain consistent with current non-federal harvesting trends.”*

- 1) increases in winter peak stream flows and decreases in summer low streamflows due to almost total removal of canopy cover coupled with very poor, even nonexistent riparian protections, post-harvest;
- 2) severe and obvious disruptions to connectivity and biodiversity due to gross removal of canopy cover and subsequent silvicultural simplification;
- 3) negation of carbon sequestration/mitigation contributions of public lands by extensive clear cut removal, most often on a short rotation basis, of woody biomass, living and dead, from adjoining and proximate private industrial timberlands;
- 4) airborne drift onto public lands from repeated aerial applications of increasingly toxic suites of herbicides and their ancillary chemicals, as well as in runoff of same from private lands onto public;
- 5) runoff from private, onto waterways on public lands, of aerially applied nitrogen fertilizers;
- 6) wildfire threats to public lands from the novel imposition, upon the shared landscapes of the Days Creek-South Umpqua Harvest Plan EA, of structurally simple, even age, monoculture fiber farm plantations on adjoining and proximate private industrial properties;
- 7) de facto negation of the conservation/restoration efforts, made on public lands by the BLM on behalf of ESA listed species, aquatic and terrestrial, by the environmentally retrograde clear cut extraction practices conducted under aegis of the OFPA on private lands, adjoining and proximate to the public lands of the Days Creek-South Umpqua EA Analysis Area, lands managed by the Roseburg District of the BLM.

Therefore, by any reasonable metric, that portion of BLM's proposed actions, whether they are acknowledged by BLM or not as being harmful to the NSO, to other listed and non-listed fauna and flora, and to conservation and/or restoration of environmentally desirable watershed functioning in general, will thus be cumulative! Simple logic dictates that they must be. It is Umpqua Watersheds studied position that they cannot be construed otherwise.

### **Carbon Sequestration/Mitigation Considerations**

*“The analysis indicator for Issue 10, tonnes of CO<sub>2</sub>, is the same for direct, indirect, and cumulative effects. Current conditions reflect all past natural disturbances and management activities (including harvest units in the Upper and Lower South Myrtle 12th field sub-watersheds under the Myrtle Creek Harvest Plan, and while this discussion considers those current conditions; it only specifically addresses the effects of the analyzed alternatives pertaining to Issue 10.”<sup>55</sup>With this general statement of BLM's, claiming to have accounted for all “...past natural disturbances and management activities...” on these watersheds the stage is set, so to speak, for the following statement made in the cumulative effects portion of the EA analysis of carbon vis a vis this plan: “This above analysis includes the effects of proposed projects under the Myrtle Creek EA that are within the analysis area of the Days Creek-South Umpqua River EA.”<sup>56</sup>*

Much as with harmful impacts to listed species, such as the NSO, to overall watershed function, including hydraulic consideration of peak and low flows, etc., this analysis of cumulative effects has chosen to disregard the ongoing impact to carbon release/sequestration occurring on adjacent and proximate private industrial timberlands that share these watersheds with the public lands managed, in the public trust, by the BLM.

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55 Days Creek-South Umpqua Harvest Plan EA, Pg. 140

56 *ibid.*, Pg. 144

In its analysis of carbon storage/release, BLM compares the three alternatives and arrives at the following conclusion: “*For Alternative B Modified, the total carbon balance 50 years following harvest would be between 938,853 and 1,076,467 tonnes, an amount approximately 338,129 to 475,743 tonnes less than under Alternative A. For Alternative C, the total carbon balance 50 years following harvest would be between 1,014,380 and 1,175,491 tonnes, an amount approximately 239,993 to 401,104 tonnes less than under Alternative A*”<sup>57</sup> Thus are the total carbon stores lost to the atmospheric carbon pool under the two action alternatives carefully delineated. Where then is a similar analysis of the same parameters relative to the private industrial lands in this portion of the infamous and unfortunate checkerboard of alternating ownerships? Do they not, then, accumulate, their carbon contributions added to those of the BLM and all other activities carried out within the analysis area? Are they not quantifiable? Or, lying outside the alternating but often adjoining boundaries of the BLM lands, are their carbon release and storage properties simply, and conveniently, nonexistent for the analytical purposes of this EA?

*“The U.S. Geological Survey, in a May 14, 2008 memorandum (USDI/USGS 2008) to the U.S. Fish and Wildlife Service, summarized the latest science on greenhouse gas emissions concluding that it is currently beyond the scope of existing science to identify a specific source of greenhouse gas emissions or sequestration and designate it as the cause of specific climate impacts at a specific location. Given this uncertainty, this analysis is focused on calculating carbon emissions and storage, in the context of release and sequestration.”*<sup>58</sup> As previously brought to the BLM's attention, this odd disclaimer is most certainly a red herring.

Simple common sense and a sense of common responsibility ought to dissuade the agency from making such backwards looking and useless assertions. UW knows and BLM knows only too well that these impacts from GHG emissions sourced from human activities are cumulative, as BLM seems to acknowledge, world wide. This planet has, for better or worse, only one common atmosphere in which life may exist and persist (or not, depending upon what we human beings choose either to do or not do). Of course carbon releases accumulate in that atmosphere. As with the incremental harms imposed on the NSO, this repeated release of carbon, project after project, on all ownerships through time, must, in the end, result in harmful impacts. They are, in other words, cumulative and, left unchecked, their continued accumulation will assuredly contribute to the almost universally predicted ill effects that will befall all life, including human life, on this planet. Many are convinced that we are now well within the meteorological sway of those powerful, anthropocentrically induced impacts.

We quote further from the EA: “*In May of 2011, a study on the effects of thinning and biomass utilization on carbon release and storage was published by Oregon State University.<sup>12</sup> The conclusions in this analysis, with respect to the effects of thinning on carbon storage, were reviewed against findings of the study. Among the study findings were:*

- *Forest carbon pools always immediately decrease as a result of thinning, with reductions increasing as a function of heavier thinning.*
- *After thinning, carbon pools remain lower throughout a 50-year period.*
- *Carbon pool estimates for thinned stands remained lower even after accounting for carbon*

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57      *ibid.*, Pg. 142, 143

58      *ibid.*, Pg. 139

*transferred to wood products.*

*The conclusions in this analysis with respect to thinning are consistent with published findings (Clark et al. 20119) that carbon pools immediately decline following thinning, and remain lower 50 years after thinning (EA, Appendix E). Appendix E of this EA also notes that Smith et al. (2006)<sup>13</sup> calculated that 13.5 percent of gross saw log carbon and 14.8 percent of gross pulpwood carbon would be immediately released into the atmosphere at harvest. This is also consistent with the findings from the Oregon State University study that not all carbon from harvested timber is transferred into wood and paper products.”<sup>59</sup>*

Again, as with the parlous situation faced by the NSO, UW encourages the BLM to recognize the peril all life faces if effective action to reduce (and mitigate for) carbon and other GHG emissions is not undertaken by every aspect of our technologically and industrially advanced societies, and soon. From an understanding of the responsibility it has, of fulfilling its public trust obligations, if for no other reason, the BLM and all government agencies at every level ought to lead the way, setting a good example for industry and citizens, by managing the lands entrusted to its care in the most carbon neutral, and even mitigating, way possible.

### **Alternate Management Options**

We realize that the BLM has settled on the two action alternatives included in the Days Creek-South Umpqua Harvest Plan EA, having discarded others. Yet, UW has the temerity to suggest a few alternative management ideas. This Conservation Chair and the remainder of the UW Board of Directors feel this to be an obligation, voluntarily undertaken, that is owed to its active and concerned membership. Likewise, we feel that to do so might be taken for a sign of our consideration of, and respect for, the long, hard work BLM staff professionals have dedicated to this project, whether or not we concur with them on all points discussed, therein. Needless to say, it is far easier to react, whether disapprovingly or not, to openly stated agency positions than to envision and present different management ideas of one's own. (However, it seems only fair of us to remind the agency that its personnel get paid to do this work, while we at UW do not.) With that sincere and honest sentiment in mind UW offers the following suggestions.

UW, as outlined earlier in these comments, believes that past over-harvest of primary public forestlands, together with past and current clear cut extraction on private industrial timberlands, adjacent or proximate to the public lands managed by the Roseburg District, ought to constrain the creation of still more large openings in the public land forest canopies, on these watersheds. We feel this is particularly warranted in the following units proposed for VRH under Alternative B, modified, where stand ages range from 99 to 133 years (listed, age-wise, in ascending order): 30-3-03A, 29-5-25A, 29-5-35B, 30-5-03A, 30-4-03A, 30-4-04A, and 30-5-11D. UW suggests that these be dropped from the project. UW predicates this suggestion based on that very decades long over-harvest of older, larger trees that is, as we regrettably believe, the legacy of over confident myopic and, even hubristic assumptions made in concert with an unfortunate lack of due environmental regard, by agency operatives, during those decades. This outstanding environmental debt, coupled with the aforementioned, ongoing and extensive clear cut extractive activities on private holdings in these watersheds, must, we believe, act as powerful constraints on present BLM management actions, for the foreseeable future. Were environmentally sound practices in current use on adjoining and proximate private industrial timberlands, as demonstrably they are not, it follows then that the BLM's

management options would be greater. UW includes wildlife and hydrological concerns in this purview.

In that vein, while the BLM states its purported obligation to supply private commercial entities with a variety of log sizes and grades<sup>60</sup>, UW suggests that the vast private industrial timberland ownership on these watersheds, is well able, on its own lands, to grow timber in longer rotations that would be well able to supply these needs. That they have, for the most part, not done so is no good reason to exact this toll on our already over-obligated, and still slowly recovering, public forest lands. At risk of belaboring this issue, we feel we must emphasize again, the past over-extraction of large old growth and mature stems on lands public and private. Had this not been planned and implemented on so vast and extended a scale, significant quantities of truly high value, superior quality logs would now be available for judicious select harvest. Sadly, this over-harvest did occur. Those larger, better quality stems are not now (nor should they be, for the foreseeable future) available.

Fact: in Western Oregon, much of the concentrated, accumulated wealth of centuries was widely liquidated in a relatively short time period. The work of centuries cannot be reasonably duplicated in twenty, thirty or even one hundred years. That is the unfortunate corner we have “sustain yield managed” ourselves into. It stands to reason that we cannot extricate ourselves from this corner by means of still more extraction. Only time and wise, environmentally sound management can hope to accomplish that.

For the units that are comprised of younger age classes, we recommend at least some amount of Variable Retention Thinning (VRT) be used, in place of “on the grid” CT, and, most especially, instead of the amount of VRH proposed under Alternative B modified. Skips and gaps might well be so arranged as to provide space for quality early seral regrowth, while well-considered retention clumps, of sufficient size, might serve the needs of migratory birds, NSO prey species, etc.

In CT units, especially those that are most likely to adversely affect resident or potentially resident NSO singles and pairs, we strongly oppose thinning down to the stated 40% canopy closure, post-harvest. Taking forested stands from NRF to Dispersal habitat, leaving them just barely qualifying for that designation is not, we believe, judicious management if, that is, the NSO is to be conserved and ultimately recovered, as law demands. This minimum level of canopy cover leaves no margin for the unexpected, such as blow down, purchaser/operator error, etc. UW feels that a minimum 50% canopy cover, post-harvest, would better protect the declining NSO, with a post-harvest closure of 60% being more ideal still.

### **Pacific Connector Gas Pipeline**

While Umpqua Watersheds has primarily concerned itself, in these comments on the Revised EA, with hydrological impacts, we are also very concerned about the acquiescence of the BLM in amending its RMP to accommodate a foreign originated enterprise that will create undesirable environmental impacts on the public lands BLM manages in trust for all of the people of the United States. This concession made, in large part, in order to enhance the energy position of our nation's commercial (and, in some cases, its political and military) competitors.

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60 Days Creek-South Umpqua Harvest Plan EA, FONSI, Pg. 2



This economic consideration coupled with the admitted impacts to NSO and other species, imposed by creation of this right of way, is very much in opposition to the wider public interest. The creation of hundreds of miles of new permanent “edge” across many watersheds, including some managed by the BLM, in addition to the potential harmful disturbance to rivers and their tributaries made by this massive construction project, so unnecessary to the public good of the American people, is outrageous and should have been rejected out of hand. That it has not been, to date, is further evidence of the weak kneed protection of watersheds and regulation of streamflow, which has unfortunately characterized much of the management of lands public and private across these beleaguered watersheds.

Sincerely,

Joseph Patrick Quinn  
Volunteer Conservation Chair,