May 25, 2017 Letter/Email

Mary Camp, President
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Forest Farmers Handbook: A Guide to Natural Selection Forest Management (1984); *The Natural Selection Alternative Natural Selection Alternative for the Medford District BLM South Deer Landscape Management Project* (EA# OR110-05-10)

Serena Barry, Vice President
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Selma, Oregon

Subj: DCV's & BLM's Interdisciplinary (ID) Team's Responsibilities for "Analyzing Effects Methodology" Required By National Environmental Procedures Act's (NEPA) Procedural Requirements

Dear Mary, Orville, & Serena:

On May 19, 2017 at the Black Forest Restaurant Mary and Serena asked me how DCV could document significant adverse social (e.g., well-being, etc.) impacts from BLM timber sale EA alternatives to the values of its members. I informed them that I believed if the DCV conducted such a substantive analysis, its responsibility was the same as a BLM ID Team member's responsibility to determine significance in an environmental assessment (EA) and/or and environmental impact statement (EIS) (BLM. 2008, Section 6.8.1.2, p. 70).

The ID Team's analysis methodology responsibility for determining significance in an EA and/or an EIS is described in the BLM NEPA Handbook (H-1790-1).[1] The handbook satisfies the BLM's responsibilities to identify and develop methods and procedures for determining significant impacts (NEPA, Section 102(2)(B); 40 CFR 1502.24). What is missing are some simple examples like in the old U.S. Forest Service methodologies (i.e., Enclosure 1; BLM's early approach – *Systematic Interdisciplinary Language For Environmental Analysis Under NEPA*.[6]

> **Section 6.8.1.2 Analyzing Effects Methodology**: A NEPA document **must describe** (emphasis added) the analytical methodology sufficiently so that the reader can understand how the analysis was conducted and why the particular methodology was used (40 CFR 1502.24). This explanation **must include** (emphasis added) a description of any limitations inherent in the methodology (emphasis added). If there is substantial dispute over models, methodology, or data, **you must recognize** (emphasis added) the opposing viewpoint(s) **and explain the rationale for your choice of analysis** (emphasis added)" (BLM. 2008, Chapter 6, Section 6.8.1.2, Analyzing Effects, p. 70).

> **40 CFR 1502.24. Methodology and Scientific Accuracy**. Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies (emphasis added) used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement. An agency may place discussion of methodology in an appendix.

The EA and EIS document **must describe** the analytical methodology to determine effects and significantly sufficiently so that the reader can understand how the analysis was conducted and why the particular methodology was used.

Regardless of the "shall" requirement (i.e., must describe) (NEPA, Section 102(2)(B); 40 CFR 1502.24; BLM. 2008, Section 6.8.1.2 *Analyzing Effects Methodology*), a major problem is that historically an ID Team's average analysis methodologies documented in EAs and EISs are usually fair to poor, to non-existent. This is unusual in light of the "shall" requirements (i.e., must describe = shall identify) of the BLM NEPA Handbook. It is also unusual that BLM does not share the BLM NEPA Handbook during public outreach as its rules for developing EAs and EISs, and how the public can become involved.

- 40 CFR1506.6 Public Involvement: ***"Agencies shall: (a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures."*** (BLM. 2008, p. 2)
- This Handbook contains direction for use by BLM employees from all levels of our organization, including decision-makers, program managers, specialists, interdisciplinary team members, and any BLM contractors involved in the NEPA process. ***"We" (BLM) believe it will help "you" (the reader) help us in meeting the legal requirements of the NEPA*** (BLM. 2008, p. 2).

In 2005 the Congressional Research Service, The Library of Congress, published a report for the U.S. Congress, *The National Environmental Policy Act: Background and Implementation*. CRS Report for Congress. The report identified four purposes of the NEPA process, two of which address public involvement (CRS. 2005, p. 11).

- **Ensure that the environmental information made available to public officials and citizens is of high quality (i.e., includes accurate scientific analysis, expert agency comments, and public scrutiny);**
- **Facilitate public involvement in the federal decision-making process.**

In 1983, the U.S. Supreme Court, in *Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.,* clarified that NEPA has twin goals (CRS. 2005. p. CRS 9).

> NEPA has twin aims. First, it places upon an agency the **obligation to consider every significant aspect of the environmental impact of a proposed action** (emphasis added). Second, **it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process** (emphasis added). Congress in enacting NEPA, however, did not require agencies to elevate environmental concerns over other appropriate considerations. Rather, it required only that the **agency take a "hard look" at the environmental consequences before taking a major action** (emphasis added)... Congress did not enact NEPA, of course, so that an agency would contemplate the environmental impact of an action as an abstract exercise. Rather, Congress intended that the "hard look" be incorporated as part of the agency's process of deciding whether to pursue a particular federal action.

This specification of NEPA's "twin aims" and the "hard look" requirement are often cited by both federal agencies and environmental advocates to articulate NEPA's mandate.

Because the DCV is considering documenting the analyses of "significant impacts" it also has the responsibility to meet BLM's "Substantive Comments" criteria (BLM. 2008. Section 6.9.2.1, p. 66).

> **6.9.2.1 Substantive Comments** do one or more of the following.
> - Question, with reasonable basis, the accuracy of information in the EIS or EA.
> - Question, with reasonable basis, the adequacy of, methodology for, or assumptions used for the environmental analysis.
> - Present new information relevant to the analysis.
> - Present reasonable alternatives other than those analyzed in the EIS or EA.
> - Cause changes or revisions in one or more of the alternatives.

The real education issue is the need for written methodologies for the above five "Substantive Comments" criteria. How does BLM actually decide if comments are substantive? Without direction from a BLM NEPA expert, you will have to decide on your own.

The responsibilities of the ID Team is at the center of NEPA's systematic, interdisciplinary approach. Agency management, land use planners, NEPA specialists, and team leaders are not responsible for identifying and developing methods and procedures for determining significant impacts (Section 102(2)(B)), nor to study the effects of appropriate alternatives (Section 102(2)(E)). The ID Team may get advice and consul from management and other planning and NEPA specialists, but the determination of significance is the ID Team members' responsibility. The ID Team's mandate is to utilize a systematic, interdisciplinary approach (Section 102(2)(A)) which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment.

The ID Team's responsibility in an EA and EIS is to determine the significance (40 CRF §1508.27, Significantly), and/or the non-significance of "issue" effects/impacts, including the direct and indirect impacts (40 CFR §1508.8. Effects (direct and indirect). This task includes the responsibility of 40 CFR 1508.7, "Cumulative Impact to the natural and physical environment and the relationship of people." (emphasis added). This means that economic or social effects with that environment (40 CFR §1508.14 Human Environment).

So what would I do if I was the DCV member responsible to analyze and document significant adverse social (e.g., well-being, etc.) impacts from BLM timber sale EA alternatives to its members? First, I would read again four documents[2-5] you have been referenced. I would also read a new "old" NEPA document (pre-1982 draft version), I might have mentioned in passing, that had a huge influence in my life when, in 1979, I went to work for the BLM Nevada State Office as an Environmental Protection Specialist (Enclosure 1; BLM. 1982).[6a] I re-read it, and it is still of value. I found it was finally published in 1984, but I have not read these articles.[6b & 6c]

- *Improving the Process for Preparing Efficient and Timely Environmental Reviews Under the National Environmental Policy Act.*[2]
- *Numerical Visitor Capacity: A Guide to its Use in Wilderness.*[3]
- *The National Environmental Policy Act: Background and Implementation.*[4]
- *Threshold Determinations Under the National Environmental Policy Act.*[5]
- *A Systematic Interdisciplinary Language For Environmental Analysis Under NEPA.*[6a]

I found a *Numerical Visitor Capacity: A Guide to its Use in Wilderness* of special value with its treatment of explicit and implicit thresholds (USDOA, USFS. 2010). Important concepts in its compliance impact methodology are: 1. significant issue, 2. significant impact, 3. affected condition, 4. indicator, 5. standard, and 6. significance determination (Appendix B; see April 5, 2017 letter/email to DCV).

> **Comprehensive River Management Plan (CRMP)**. Not surprisingly, time and resources are positively related to the quality of thresholds and the accuracy of user capacity estimates. More accurate and defensible approaches are more costly, in time and resources. Capacity processes can generally be arrayed on a spectrum from (1) explicit thresholds, high accuracy approaches that require substantial time and resources to (2) implicit thresholds, low accuracy approaches that require little time and resources. The selection of a numerical estimation capacity process will largely be one of selecting an appropriate point on this spectrum, understanding the limitations of whatever process is undertaken, and striving to minimize those limitations. This is similar to the concept of a sliding scale: "The sliding scale rule of analysis says that the level of analysis should be commensurate with the purpose or potential consequences." The greater the potential consequences, impacts or risks, the more certainty and precision are needed, with resultant implications for the amount and quality of science and information that is needed (USDOA, USFS. 2010, pps. 4-5).

I am definitely biased in favor of a significance analysis having a quantitative analysis with a threshold of concern (TOC). The TOC is the point or benchmark at which management becomes concerned about the effects of an activity described in an EA or EIS on a particular resource or value. The TOC may reflect the best judgement of management, or the ID Team's members if management does not become involved. In either case, it is the standard or criterion to which all estimates of impact to elements of the physical, biological, social, or economic environments are compared.

A TOC example follows for the issue of air pollution. An air quality index (AQI) is a number used by government agencies to communicate to the public how polluted the air currently is or how polluted it is forecast to become. As the AQI increases, an increasingly large percentage of the population is likely to experience increasingly severe adverse health effects. The AQI represents air pollution levels for mainly fine particulate matter (i.e., PM2.5 is particulate matter with a diameter less than 2.5 μm (in micrograms per cubic meter). For example, the scoping air pollution issue at which the effects from an activity could be could be measured by the indicator PM2.5 with a TOC of when the air quality rating is above an ASI 100 (i.e., Unhealthy for Sensitive Groups, AQI 101 - 150), or some other higher AQ rating, perhaps above AQI > 300 - Hazardous?

AQ Rating	AQI
Good	0 - 50
Moderate	51 - 100
Unhealthy for Sensitive Groups	101 - 150
Unhealthy	151 - 200
Very Unhealthy	201 - 300
Hazardous	> 300

From a BLM point of view, the AQI air pollution levels could be considered regulatory thresholds (BLM. 2008, pps. 8 regulatory thresholds; 38 thresholds; 60 thresholds; 61 biological, socio-economic, or physical thresholds; etc.).

In conclusion, I would use the five referenced documents to rewrite the Hugo Justice System Exploratory Committee, HNAHS's "*Impact Methodology Model*" intended as a "request for proposal" public safety study design (i.e., contract study; Appendix A).

I am available anytime for "table talk."

Sincerely,

Mike :) 

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Footnotes

1. *BLM National Environmental Policy Act Handbook H-1790-1*: January 30, 2008 (BLM. 2008).
2. Council on Environmental Quality. March 6, 2012. *Improving the Process for Preparing Efficient and Timely Environmental Reviews Under the National Environmental Policy Act*. Memo for Heads of Federal Departments and Agencies. Washington, D.C. 20503 (CEQ. 2012). https://ceq.doe.gov/docs/ceq-regulations-and-guidance/Improving_NEPA_Efficiencies_06Mar2012.pdf.
3. USDOA, USFS, Rocky Mountain Research Station. October 2010. *Numerical Visitor Capacity: A Guide to its Use in Wilderness*. Fort Collins, CO.
4. Congressional Research Service (CRS), The Library of Congress. November 16, 2005. *The National Environmental Policy Act: Background and Implementation*. CRS Report for Congress (CRS. 2005).
5. Valerie M. Fogleman. 1987. *Threshold Determinations Under the National Environmental Policy Act*. 15 Boston College Environmental Affairs Law Review. 59 (Fogleman. 1987).

6a. P.T. Haug, R.W. Burwell, G. Yeager, A. Stein, and B.L. Bandurski. 1982, Preliminary Draft Not For Distribution. *A Systematic Interdisciplinary Language For Environmental Analysis Under NEPA*. BLM, USDI. Washington, DC.

6b. P.T. Haug, R.W. Burwell, A. Stein, and B.L. Bandurski. 1984. *Determining Significance of Environmental Issues Under NEPA*. Journal of Environmental Management. Vol. 18: 15 - 24.

6c. P.T. Haug, R.W. Burwell, G. Yeager, A. Stein, and B.L. Bandurski. 1984. *A Systematic Interdisciplinary Language For Environmental Analysis Under the National Environmental Policy Act*. Journal of Environmental Management. Vol. 18: 1-13.

Appendices

Appendix A. Impact Methodology Model: Procedural Requirements & Basic Impact Methodology Model
Appendix B. Scoping Rogue River's Outstandingly Remarkable Values: 2014

Attachments (Attachments to draft May 15, 2017 Letter/Email from Walker to NVC)

Attachment 6a. *Threshold Determinations Under the National Environmental Policy Act*. Fogleman 1987.
Attachment 6b. Selected Information From *Threshold Determinations Under the National Environmental Policy Act*. Fogleman 1987.
Attachment 7. *The National Environmental Policy Act: Background and Implementation*. CRS 2005.
Attachment 11. *Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act*. CEQ 2012.

Enclosures

Enclosure 1. *A Systematic Interdisciplinary Language For Environmental Analysis Under NEPA* (Preliminary Draft Not For Distribution, 1982) - Will be sent snail mail.

At the last minute I added two companion articles from the Journal Of Forestry to the snail mail package.

- Musser, Lloyd A., Morse Eric, and Sassaman, Robert W. February 1981. *Threshold of Concern: A Technique for Evaluating Environmental Impacts and Amenity Values.* USDA, Forest Service. Journal Of Forestry, Vol. 79. No. 2.
- Sassaman, Robert W. February 1981. *Threshold of Concern: A Technique for Evaluating Environmental Impacts and Amenity Values*. Pacific Northwest Forest and Range Experiment Station, USDA, Forest Service. Journal Of Forestry, Vol. 79. No. 2.

Appendix A. Impact Methodology Model:
Procedural Requirements & Basic Impact Methodology Model

- Walker, Mike & Whalen, Jon 2015. *Appendix D1. Impact Methodology Model,* For *Justice System & Public Safety Services Study Design: 2015*. Hugo Justice System & Public Safety Services Exploratory Committee, Hugo Neighborhood Association & Historical Society, Hugo, OR.

IV. PROCEDURAL REQUIREMENTS
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  - 5. Significance Determination
  - 6. Contracting Officer

IV. PROCEDURAL REQUIREMENTS

The grant application process, as described in the draft document *Justice System & Public Safety Services Study Design: 2015,* includes ideas and opportunities for citizen involvement significantly beyond most government assessments.

- Identify citizen issues important to them.
- Identify affected environment components important to citizens.
- Identify and/or design [citizen] recommended alternative JS&PSS programs for analysis.
- Identify and/or design standards to analyze the range of [citizen] JS&PSS program alternatives.

A. Procedural Requirements For JS&PSS Study Design

Section IX.A. Procedural Requirements, was adapted from Chapter II, Procedural Requirements, *NEPA Design Group's Comments on the Hellgate RAMP/DEIS.*

> NEPA Design Group. February 15, 2001. Chapter II, Procedural Requirements, *NEPA Design Group's Comments on the Hellgate RAMP/DEIS*. Prepared for Bureau of Land Management, Medford District Office, United States Department of Interior. Hugo, OR.

This section covers three topics applicable to the proposed JS&PSS Study Design and ultimate JS&PSS Study.

- Logical and Coherent Record.
- Procedural Standards.
- Impact Methodologies.

1. Logical and Coherent Record A crucial requirement is providing a logical and coherent record. Adapted guidance is compliance with the Council on Environmental Quality (CEQ) regulations and BLM requirements for implementing the procedural provisions of NEPA (Appendices DD1, DD2, DD3, DD4, and DD5).

> *The purpose of this handbook is to provide instructions for complying with the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508) and the Department of the Interior's manual guidance on the National Environmental Policy Act of 1969 (516 DM 1-7).*
>
> *The objectives of this Handbook are: "... to ensure a logical and coherent record of NEPA compliance within the BLM...".*

2. Procedural Standards The ultimate "Study Team" (Chapter XI) will be primarily using the procedural standards identified in BLM's NEPA handbook and CEQ's regulations to develop the Analysis of Public Situation and JS&PSS Study. One procedural standard which will be cited many times follows; it deals with the public having a complete and objective evaluation of significant impacts. The specific rationale why this standard is met or not meet will be provided for each affected condition and impact.

> *An EIS is intended to provide decisionmakers and the public with a complete and objective evaluation of significant . . . impacts, both beneficial and adverse, resulting from . . . all reasonable alternatives.*

Public comments on this document and all appendices and other supporting material will also reflect the procedural categories of comments encouraged by BLM and identified in *BLM's National Environmental Policy Act Handbook: H-1790-1.* The following comment categories are helpful.

- *New information that would affect the analysis.*
- *Possible improvements in the analysis.*
- *Suggestions for improving or clarifying the range of alternatives.*

Public comments (written or oral) play an integral role in the NEPA process and in the JS&PSS Design Study, APS, and Study. Comments on the APS is the first advertised chance the public will have to review and comment on the impact analysis and the identified problem/issue, affected conditions, range of alternatives and impacts. Comments should be addressed if they: are substantive and relate to inadequacies or inaccuracies in the analysis or methodologies used; identify new impacts or recommend reasonable new alternatives or mitigation measures; or involve substantive disagreements on interpretations of significance (see 40 CFR 1502.19, 1503.3, 1503.4, 1506.6, and 516 DM 4.17). One of the public's most important public comment opportunities is — *"Disagreements With Significance Determinations."*

3. Impact Methodologies Impact methodologies are part of the procedural standards, but they are covered as a separate topic because it is imperative that an informed public understand the basis for understanding and judging the reliability of the impact analysis. It is especially important that the public have a clear explanation of the methodology and assumptions when information critical to the analysis was incomplete or unavailable (see 40 CFR 1502.22; Question 18 — CEQ's Forty Most Asked Questions).

The bodies of the APS and JS&PSS Study should be a succinct statement of all the information on impacts and alternatives that the public needs, in order to make the decision and to ascertain that every significant factor has been examined. The JS&PSS Study must explain or summarize methodologies of research and modeling, and the result of research that may have been conducted to analyze impacts and alternatives (Question 25a — CEQ's Forty Most Asked Questions). Lengthy technical discussions of modeling methodology, baseline studies, or other detailed work are best reserved for an appendix.

The magnitude of all impacts should be identified and the risks associated with such impacts assessed. The description of impacts should identify how short-term uses will affect long-range productivity and identify any irreversible and irretrievable commitments resulting from those uses. Clarity of expression, logical thought processes, and rationale explanations are crucial. Subjective terms should be avoided. The analysis should lead to a pointed conclusion about the amount and degree of change (impact) caused by the alternatives.

B. Impact Methods

1. Introduction Impact Methods are focused on carrying capacity as defined by concepts of explicit and implicit thresholds (often called indicators and standards), capacity estimates, numerical estimation capacity process, and risk of a particular quality of thresholds.

Not surprisingly, time and resources are positively related to the quality of thresholds and the accuracy of capacity estimates. More accurate and defensible approaches are more costly, in time and resources. Capacity processes can generally be arrayed on a spectrum from (1) explicit thresholds, high accuracy approaches that require substantial time and resources to (2) implicit thresholds, low accuracy approaches that require little time and resources. The selection of a numerical estimation capacity process will largely be one of selecting an appropriate point on this spectrum, understanding the limitations of whatever process is undertaken, and striving to minimize those limitations. This is similar to the concept of a sliding scale: "The sliding scale rule of analysis says that the level of analysis should be commensurate with the purpose or potential consequences." The greater the potential impacts or risks, the more certainty and precision are needed, with resultant implications for the amount and quality of science and information that is needed (USDOA, USFS, Rocky Mountain Research Station. October 2010. *Numerical Visitor Capacity: A Guide to its Use in Wilderness*. Fort Collins, CO).

The process of deriving a meaningful numerical capacity is useful for the entirety of *"Contract Compliance Impact Methodology*." It involves identifying goals or desired conditions (i.e., thresholds), objectives, desired conditions, and thresholds (i.e., indicators and standards). It requires monitoring, evaluating the factors that influence impacts of concern, and identifying the entire suite of actions to be taken. Consequently, working through a capacity estimation process will benefit any program.

Numerical capacities is only one of many carrying capacity management tools. If user capacity (e.g., jail beds, justice system case load, etc.) is used, it must be embedded in the context of a thorough analysis of the root cause of problems/issues and alternative prescriptions of diverse strategies and techniques.

Carrying Capacity Thresholds (goals or desired conditions) The terms "threshold" and "standard" are interchangeable, although the use of the generic term "threshold" is used most often. As noted earlier, thresholds from a management point of view are not to be exceeded. They are requirements, not a suggestion. From an ID Team point of view, thresholds determine significant impacts, or not.

Estimate Capacities Note that the numerical capacities are estimates not decisions. These estimates are likely to change over time, as affected conditions change and as better information becomes available. In contrast, the thresholds should be stable at least through planning cycles.

Monitoring Must Be Proactive Even if there is no monitoring data and uncertainty is high, capacities can still be estimated. It is not necessary to wait until research and monitoring data are available or to avoid making an estimate because there are insufficient resources for research and monitoring.

Ideally thresholds should be explicit and quantitative. To address the most important values at risk, it is best to develop thresholds for multiple indicators. Explicit, quantitative thresholds are referred to as indicators and standards in speciality processes as well as general planning processes. However, some capacity estimation processes rely on implicit thresholds. Two processes that have frequently been used, in which the thresholds are implicit, are (1) capacity estimates based on procedures described in the Recreation Opportunity Spectrum (ROS) and (2) capacity estimates based on a freeze on current use.

The ultimate decision or plan should establish the baseline conditions at the initiation of planning — including a description of any JS&PSS degradation—and proposed alternatives that will be considered to improve conditions.

The baseline conditions of JS&PSS values are needed to estimate impacts. Without these baselines there is little comparative rationale from which the degree/intensity of existing and future impacts can be measured, and, therefore, minimal information to ensure continued high quality conditions and to eliminate adverse impacts or improve conditions. A thorough assessment that included baseline descriptions of the affected conditions is needed.

Monitoring is not absolutely necessary to estimate capacity of the affected conditions but, if done well, it always increases the accuracy of estimates. The importance of monitoring increases as the risk to valued resources increases and as the uncertainty associated with predictions based on professional judgment, logic, experience or research increases (i.e., significant adverse impacts or legal challenges high). The experience in the real world is that monitoring programs are usually not successfully implemented and are started over with each successive planning process.

Where the public or decision-makers have little information and where the impacts of a capacity-based decision are not very controversial, rapid approaches may suffice. However, where the potential for quality of life degradation is significant or there is a high likelihood of the decision being challenged, a more involved, lengthy, collaborative, and precise approach is warranted. The keys to success are (1) employing the best available information; (2) basing estimates on clear objectives, logical thinking, sound science, and professional judgment (so it is not arbitrary); and (3) refining capacity estimates over time as new information becomes available. It is also important to think about implementation while developing capacities. There is little value to developing capacities if there is no will to implement the actions needed to avoid exceeding carrying capacity.

2. Significant Impact Methodology There is a high correlation between the requirements of the Wild & Scenic Rivers Act (WSRA) and NEPA when it comes to NEPA's threshold determinations of whether the impacts of a major federal action significantly affects the quality of the human environment. It is interesting and significant that both the WSRA and NEPA became law in the same year - 1968. They both have principles of carrying capacity and thresholds performing exactly the same task.

1. NEPA significant impacts with indicator and thresholds or standards
2. NEPA carrying capacity with indicators and thresholds or standards
2. WSRA user capacities (carrying capacity) indicators with standards (thresholds)

The goal of good public management is to protect the human quality of life for future generations while interfering as little as possible with the efficiency of commerce or the liberty of the people and to limit inequity in who is burdened with the costs.

Carrying capacity and thresholds with indicators and standards are today considered normal impact methodologies. In the early 1980s, interdisciplinary specialists were experts at describing their resources of responsibility, but were behind the curve in explaining why impacts to these resources were significantly beneficial and/or adverse.

And early effort at organizing impacts in a concise logical way a 1982 BLM publication (USDI, BLM. Preliminary draft June 11, 1982. *A Systematic Interdisciplinary Language For Environmental Analysis Under NEPA*. Authors P. T. Haug, R.W. Burwell, G. Yeager, A. Stein, and B. L. Bandurski. pages 24. Washington D.C.). This was normal and different from the other ID specialists that were responsible for resource programs, not process. This simple brief working glossary for analysis is illustrative.

Baseline	Consequence
Change Agent	Human Environment
Component	Impact
Context	Index (today's standard)
Ecosystem	Indicator
Effect = Environmental	

NEPA, Section 102(2)(C) — Threshold Determinations. All agencies shall include an EIS with any proposal which is a major federal action significantly affecting the quality of the human environment. Therefore, all agencies must make a threshold determination concerning any proposal as to whether it is a major federal action, and if so, whether it significantly affects the quality of the human environment.

What criteria should be used to assess whether or not impacts are significant (see 40 CFR 1508.27). The ID team is responsible for the identification and use of thresholds of context and intensity for use in determining impacts.

Factors to consider in determining significance are set forth in 40 CFR 1508.27. To determine significance, impact prediction may be compared to some parameter or maximum/minimum level of effect beyond which the impacts become significant (i.e., a significance threshold). Law, regulation, prior commitments, professional expertise, the manager's best judgement, and public opinion can affect the setting of significance thresholds.

The analysis of impacts must address direct, indirect (i.e., regional), and cumulative impacts on all affected conditions of the human environment, including critical elements (i.e., JS&PSS, social, political, and economic). Impacts should be identified in relationship to thresholds of context and intensity.

C. Analysis Documentation & Method

- *Hugo Justice System Exploratory Committee.* July 8, 2013. *Analysis Method*. Brochure IIIC.1, Justice System & Public Safety Services Series. Hugo, OR.

1. Information Statements by Government and Other Publications, Including News Articles Information about levies sometimes meets information standards, sometimes not. It is most helpful for the public that information statements on levies where the government wishes to tax should be written statements of fact, conclusions, and determinations based upon the evidence or facts at hand, presented relative to the applicable standards for the proposed levy proposed by county. The objective is to minimized opinions and sensationalism.

2. Information Statements Should

1. Identify the information issue.
2. Respond to specific issues raised by citizens.
3. Identify the relevant standards or authorities.
4. Identify the facts which were believed would be relied upon by the decision makers.
5. Explain how those facts lead to the conclusion that the standards are, or are not, satisfied.
6. State that the standards are met or not.

3. Analysis Method The JS&PSS Exploratory Committee and JS&PSS Study Team will use the following analysis methodology in researching and documenting information issues.

a) Information Issue Why is the issue being analyzed and/or documented?

1. How does the issue relate to the question: "Is JO CO providing an adequate level of public safety services?"
2. Was the issue raised by the public?[2]

b) Known Facts What are the known facts? The power of future information abstracts documented in brochures is that they spur the question of whether there are better facts and the information can be updated. Sometimes research projects will focus solely on a description of the facts or standards.

c) Standards Are there standards or authorities? Sometimes there are scientific standards by which a levy proposal can be analyzed, sometimes not. Standards could be the law, official county polls, or professional opinions by recognized authorities or experts.

d) Analysis The goal is objective analysis and documents, not whether the proposed legislation was right or wrong, or in some overt way to try to influence a yes or no vote from the public.

e) Conclusion/Recommendation The analysis conclusions would be a set of recommendations to the public.

V. BASIC IMPACT METHODOLOGY MODEL

Sound "impact planning" documents complete an objective evaluation of significant impacts, including a logical and coherent record (impact methodology) of how they were derived. This requirement is not permissive, but a procedural requirement. The requirement is that the impact study provide a full and fair discussion of significant impacts that inform the public of reasonable alternatives which would avoid or minimize adverse impacts, or enhance the quality of the human conditions. The requirement is to focus on significant issues and impact studies that are concise, clear, and to the point, and supported by evidence.

A. Basic Impact Methodology Model

1. Legal Requirements There are no legal requirements except contract law for the *Justice System & Public Safety Services Study Design: 2015* "request for proposal," and there is no legal requirement for specific "significant impact methodology models." There is a legal responsibility to document the specific impact models used.

The ID Team's analysis methodology responsibility for determining significance in an EA and/or an EIS is described in the BLM NEPA Handbook (H-1790-1).[1] The handbook satisfies the BLM's responsibilities to identify and develop methods and procedures for determining significant impacts (NEPA, Section 102(2)(B); 40 CFR 1502.24).

> **Section 6.8.1.2 Analyzing Effects Methodology**: A NEPA document must describe the analytical methodology sufficiently so that the reader can understand how the analysis was conducted and why the particular methodology was used (40 CFR 1502.24). This explanation must include a description of any limitations inherent in the methodology. If there is substantial dispute over models, methodology, or data, you must recognize the opposing viewpoint(s) and explain the rationale for your choice of analysis (BLM. 2008, Chapter 6, Section 6.8.1.2, Analyzing Effects, p. 70).
>
> **40 CFR 1502.24. Methodology and Scientific Accuracy**. Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement. An agency may place discussion of methodology in an appendix.

2. Basic Impact Model The basic impact methodology model is derived from NEPA. The requirement is for impact studies to be analytic rather than encyclopedic.

- Scoping
- Range of Alternatives
- Affected Conditions
- Impacts
- Incomplete or unavailable information
- Affecting
- Affects/Effects/Consequences
- Human Conditions (physical, biological, economic, & social)
- Significantly

Step 1. Scoping And Documenting Significant Planning Issues. The standard impact methodology of identifying impacts starts first with the documented significant issues primarily identified during scoping. Although informative, there need be no documentation in later chapters of an impact study that does not relate to the significant issues identified during scoping. In fact, other documentation is usually not needed and not helpful to the public in understanding the significant impacts resulting from the alternatives.

An exception would be "clearing the air" statements about process issues and concerns, other legal disclosures and requirements, and new information. The reasons for documenting this kind of information should be provided.

Step 2a. Range of Alternatives Designed And Documented Around Significant Planning Issues. The second step of the basic impact methodology model is to design a range of reasonable alternatives around the significant planning issues identified during scoping. The alternatives section is the heart of the impact study. The no action alternative is the baseline to which the other alternatives are compared. The requirement is to design the alternatives to sharply reflect the issues and provide a clear basis for choice among options by the public.

Step 2b. Range of Alternatives Compared And Documented By Impact A second additional, and just as important, requirement of the alternatives section in the impact study is to present the significant impacts of the range of alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the public. This portion of the alternatives section of the study is based on the information and analysis which is later developed in the sections on the affected conditions and impacts sections of the impact study.

Step 2c. Range of Alternatives Considers And Documents Mitigation Measures The alternatives section should also include appropriate mitigation measures not already included in the design of the alternatives.

Step 3a. Affected Conditions – Description of Existing Conditions Being Significantly Affected. The third step of the basic impact methodology model is to document the affected conditions being impacted by the alternatives in some significant way. The impact study succinctly describes the conditions of the area(s) to be affected or created by the alternatives

under consideration. The affected conditions is the baseline for comparing the effects of the alternatives. The descriptions should be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a study should be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Useless bulk should be avoided and impact studies should concentrate effort and attention on important issues. Verbose descriptions of the affected conditions are themselves no measure of the adequacy of a study.

Although informative, there need be no documentation in the affected conditions section of a impact study that does not relate to the significant issues identified during scoping (unless new significant issues and impacts beyond those identified during scoping are identified during the analytical analysis process), and the significant impacts identified in the environmental impacts section. In fact, other documentation is usually not needed and not helpful to the public in understanding the significant impacts resulting from the alternatives.

Step 3b. Affected Conditions – Incomplete Or Unavailable Information. A second additional, and just as important, requirement of the affected conditions section in the study is to always make it clear when there is any incomplete or unavailable information relating to any reasonably foreseeable significant adverse effects on the human conditions. If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives, and the overall costs of obtaining it are not exorbitant, the information shall be included the in impact study.

However, if the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant, or the means to obtain it are not known, the affected conditions section shall have a statement that such information is incomplete or unavailable. The next step in the impacts section will address the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human conditions.

Step 4a. Impacts – Identifying And Documenting Significant Impacts The fourth and last step of the basic impact methodology model is to identify the significant impacts of the alternatives.

The impacts section forms the scientific and analytic basis of the study Any direct, indirect, and cumulative effects from the alternatives and their significance must be analyzed and documented. The discussion will also include the relationship between short-term uses of man's conditions and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the range of alternatives should any be implemented. The baseline for the comparison of the impacts resulting from the different alternatives is the "affected conditions." In bullet summary, the following types of significant impacts must be analyzed and documented as applicable.

- adverse
- beneficial
- short term

- long term
- direct
- indirect
- cumulative
- irreversible
- irretrievable

Step 4a. Impacts – Incomplete Or Unavailable Information. There is the requirement to always make it clear when there is any incomplete or unavailable information relating to any reasonably foreseeable significant adverse impacts on the human conditions. It should be noted if the information relevant to reasonably foreseeable significant adverse impacts could not be obtained because the overall costs of obtaining were too high. Does the impact study provide full and fair discussion of significant impacts that inform the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human conditions?

B. Contract Compliance Impact Methodology

The following is the impact methodology which will be used by all study team members. The impact methodology is based upon significant planning issues identified during scoping and the public's identification of the range of alternatives. A significant compliance standard is for the study tem to use the Basic Impact Methodology Model in fulfilling the requirements of this section on contract compliance. It is also based upon the concept of indicators and standards which will be addressed in this section. The most important concept of the impact methodology or "impacts methodology" is that it uses the scientific method - it is not rocket science, but the process is logical, and traceable, and the APS is available to public, agency, and government review. The methodology should identify the process to determine whether an impact is significant, or not, and the rationale (threshold) to support the significance determination.

> An impact study is intended to provide the public with a complete and objective evaluation of significant impacts, both beneficial and adverse, resulting from a range of reasonable alternatives.
>
> An impact study shall provide full and fair discussion of significant impacts and shall inform the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human conditions.

The five parts of the impact methodology are 1. issue, 2. impact, 3. indicator, 4. standard, 5. significance determination.

1. Significant Issue A significant issue is a subject or question of widespread public discussion or interest regarding the JS&PSS Issue. The impact methodology of identifying significant impacts starts first with the definition of the significant issues during scoping.

2. Significant Impact A significant impact is a change in the human conditions which if beyond a certain threshold become important. The components of a significant impact are its indicator, standard, and conclusion.

Impacts, effects, and consequences are synonymous. Effects may be direct, indirect, or cumulative. Impact predictions are compared to identified standards (i.e., maximum/minimum level of effect) beyond which the impacts become significant).

3. Indicator An indicator is a variable, either singly or in combination with another variable, which is taken as indicative of the condition of the overall issue. An indicator is the specific variable by which impacts are described. A comprehensive description of the indicator(s) are the documented affected conditions being impacted by the alternatives in some significant way (see Basic Impact Methodology Model). The indicators in the affected conditions section provide a benchmark or baseline for enabling the public to compare the magnitude and time effects of the alternatives.

4. Standard A standard is a measurable aspect of an indicator. Setting standards is a judgmental process; however, the process is logical, traceable, and subject to agency and public review (i.e., the scientific method) in the APS.

A standard is the level, point, or value above which something will take place, or below which it will not take place. A standard provides a base against which a particular condition and/or change can be judged as acceptable or not. Standards or thresholds can be used to determine whether a change in an indicator or impact is significant (either beneficial or adverse).

5. Significance Determination

A determination of significance requires a consideration of both context and intensity. To determine significance, impact predictions are compared to identified standards/thresholds (i.e., maximum/minimum level of effect) beyond which the impacts become significant. The standard is the basis for identifying the conclusionary levels of an impact:

- significantly beneficial impact,
- beneficial impact,
- neutral impact,
- adverse impact, and
- significantly adverse impact.

6. Contracting Officer (CO) The CO would provide training and guidance on the "request for proposal" to meet the contract.

Appendix B. Scoping Rogue River's Outstandingly Remarkable Values: 2014

Scoping Rogue River's Outstandingly Remarkable Values: 2014
http://www.hugoneighborhood.org/OutstandinglyRemarkableValues_DraftFINAL120814.pdf

- Hugo Neighborhood Association & Historical Society, Rogue Advocates, & Goal One Coalition. Preliminary Draft December 8, 2014. *Scoping Rogue River's Outstandingly Remarkable Values, Other Similar Values, & Other River Values*. Hugo, OR.

Section II.A.2.k) Comprehensive River Management Plans

Comprehensive River Management Plan (CRMP). Not surprisingly, time and resources are positively related to the quality of thresholds and the accuracy of user capacity estimates. More accurate and defensible approaches are more costly, in time and resources. Capacity processes can generally be arrayed on a spectrum from (1) explicit thresholds, high accuracy approaches that require substantial time and resources to (2) implicit thresholds, low accuracy approaches that require little time and resources. The selection of a numerical estimation capacity process will largely be one of selecting an appropriate point on this spectrum, understanding the limitations of whatever process is undertaken, and striving to minimize those limitations. This is similar to the concept of a sliding scale: "The sliding scale rule of analysis says that the level of analysis should be commensurate with the purpose or potential consequences." The greater the potential consequences, impacts or risks, the more certainty and precision are needed, with resultant implications for the amount and quality of science and information that is needed (USDOA, USFS, Rocky Mountain Research Station. October 2010. *Numerical Visitor Capacity: A Guide to its Use in Wilderness*. Fort Collins, CO). [*Numerical Visitor Capacity*] (USDOA, USFS. 2010, pps. 4-5).

The process of deriving a meaningful numerical capacity is useful for the entirety of visitor use management. It involves **identifying goals, objectives, desired conditions, and what we refer to as thresholds (often called indicators and standards).** It requires **monitoring**, evaluating the factors that influence impacts of concern, and identifying the **entire suite of visitor management actions** to be taken. Consequently, working through a capacity estimation process, regardless of whether limiting use is an important management tool, will benefit any recreation management program (USDOA, USFS. 2010).

Section II.A.3. NEPA Significant Impact Methodology

NEPA, Section 102(2)(C) — Threshold Determinations. All agencies shall include an EIS with any proposal which is a major federal action significantly affecting the quality of the human

environment. Therefore, all agencies must make a threshold determination concerning any proposal as to whether it is a major federal action, and if so, whether it significantly affects the quality of the human environment (Appendix C; Appendix D).

What criteria should be used to assess whether or not impacts are significant (see 40 CFR 1508.27). The ID team is responsible for the identification and use of thresholds of context and intensity for use in determining impacts.

Factors to consider in determining significance are set forth in 40 CFR 1508.27. To determine significance, impact prediction may be compared to some parameter or maximum/minimum level of effect beyond which the impacts become significant (i.e., a significance threshold). Law, regulation, prior commitments, professional expertise, the manager's best judgement, and public opinion can affect the setting of significance thresholds.

The analysis of impacts must address direct, indirect (i.e., regional), and cumulative impacts on all affected resources of the human environment, including critical elements (i.e., air quality, areas of critical environmental concern, cultural resources, farm lands - prime or unique, flood plains, Native American religious concerns, threatened or endangered species, wastes - hazardous or solid wastes, water quality - drinking and ground, wetlands, riparian zones, wild and scenic rivers, and wilderness). Impacts should be identified in relationship to thresholds of context and intensity.

NEPA's Significantly - 40 CFR 1508

What criteria should be used to assess whether or not impacts are significant when determining the scope of an action? The following are applicable standards quoted from the CEQ regulations, 40 CFR 1508.

NEPA, Section 102(2)(C) — Threshold Determinations. All agencies shall include an EIS with any proposal which is a major federal action significantly affecting the quality of the human environment. Therefore, all agencies must make a threshold determination concerning any proposal as to whether it is a major federal action, and if so, whether it significantly affects the quality of the human environment.

Sec. 1508.4 Categorical Exclusion
Sec. 1508.7 Cumulative Impact
Sec. 1508.8 Effects
Sec. 1508.14 Human Environment
Sec. 1508.19 Matter
Sec. 1508.20 Mitigation
Sec. 1508.25 Scope
Sec. 1508.27 Significantly