CHAPTER 4 – DECISION SPACE, ALTERNATIVE DEVELOPMENT, PRELIMINARY PROPOSED ACTIONS

The next step in the planning process is to prepare a Draft Environment Impact Statement (DEIS) and two proposed revised Forest Plans. Preparation of these documents will require an understanding of the specific decisions that are to be made in the Forest Plans. The KIPZ is using the concept of "decision space" to help define the framework and options available for the multiple decisions made in the Forest Plans. The preparation of the DEIS will apply the decision space concept and use it to guide the development of several alternatives.

Following the discussion of decision space is an introduction to the No Action and the Proposed Action. The DEIS will address the effects associated with continuing with current management direction through the No Action Alternative, as well as address the effects associated with the range of alternatives developed through scoping and our collaboration efforts.

Decision Space

Decision space is the concept that only certain options can be considered for any given issue. Acceptable and appropriate options are those that are legal, consistent with Agency policies, implementable, science-based, within expected Agency budgets, and have acceptable risk and uncertainty. An additional consideration for identifying reasonable management options is public values and opinions. The decision space for an issue is defined by such appropriate, acceptable and reasonable management options. The following section describes the factors that define decision space and discusses their role as basic building blocks for the alternatives:

Legal and Agency Policy Requirements

Many laws, acts, regulations and policy documents guide the forest planning process. All decisions that are made will be in compliance with this direction. Direction for planning also comes from the Forest Service Directive System (Handbooks and Manuals). These will also be followed, as appropriate.

The NEPA of 1969 requires that all environmental analyses "consider a full range of reasonable alternatives to the proposed action that address the significant issues and meet the purpose and need for the proposed action."

All alternatives must also meet the requirements of other applicable laws, including the Endangered Species Act of 1973, the Multiple Use and Sustained Yield Act of 1960, the National Forest Management Act of 1976, the Clean Air Act of 1955, the Clean Water Act of 1948, the National Historic Preservation Act of 1966, and the Forest and Rangeland Renewable Resources Planning Act of 1974.

Compliance with these laws and other applicable direction will result in a range of alternatives that are all fully implementable and legal. Following this direction facilitates comparison of alternatives.

Scientific Findings

The KIPZ Interdisciplinary Team (IDT) will rely on a wide range of scientific information for the formulation of alternatives and management direction. This will include individual scientific papers and larger, more comprehensive studies. For example, the ICBEMP Scientific Assessment published in 1996, will be considered in developing management options, restoration priorities or desired ecological conditions.

Public Collaboration and Comment

On April 30, 2002 our Notice of Intent (NOI) was published, which began our public scoping. All comments received during the public scoping process and comments received during any subsequent community meetings will be used to develop and refine possible alternatives for the DEIS. These

comments will be reviewed for legal and scientific validity, similar to management options identified by KIPZ team members.

In addition, ideas and advice gathered by the two Forest Supervisors and the IDT in their consultation and discussions with Tribal governments, elected officials, and Forest Service employees will be considered in developing alternatives. Consultation with State and Federal agencies has begun and will continue throughout the Forest Plan Revision process.

Risk and Uncertainty

In addition to legal requirements, scientific findings, and public opinion; risk and uncertainty also define the decision space for the alternatives.

The alternatives differ in how risks associated with the timing, location, and intensity of environmental and human disturbances are recognized and managed. Risk can be described with three elements:

1) An estimate of the magnitude of a possible loss or gain;

2) The probability that the gain or loss will occur; and

3) A clear description of exposure - who or what is exposed to risk.

For example, wildfire is an ecological disturbance process that has important benefits and costs. Fire management provides an opportunity to change the risks, costs, and benefits associated with wildfire by, for example, reducing the risk of catastrophic loss of forested communities while reintroducing fire as a desirable ecosystem process.

Individuals, groups, and our broader society exhibit different attitudes toward risk. Public comments will provide information to the decision makers regarding public perceptions of risk.

The alternatives may also differ in how uncertainty - a lack of absolute knowledge about how complex environmental and social systems work and respond to management changes - is considered.

The DEIS and proposed revised Forest Plans will be based on the best available information. Recommendations and decisions will be made based on this information. Scientific research, monitoring, analysis, and synthesis of practical experience are central to increasing knowledge and reducing uncertainty. Adaptive management is the strategy for deliberately creating new information and insight to informed decision-making. That is, adaptive management uses our awareness of risks, costs, and uncertainties to allow actions to be taken in ways that promote learning to reduce those risks, costs, or uncertainties.

Values, attitudes, and beliefs influence how people think about and deal with uncertainty surrounding ecosystem management. Specifically, the balance point between losses and gains, and the costs and benefits of decision-making under conditions of uncertainty will vary from one individual or group or agency to another. Some people may believe that gaps in knowledge are not significant and that enough is known to proceed prudently, if not confidently, with ecosystem management. Some may believe that no amount of knowledge will be sufficient to justify the possibility of adverse outcomes, and that it is best to avoid tinkering with nature's ecosystem processes that can never be completely understood. Still others may believe that people can incrementally understand and improve the management of inherently diverse and dynamic ecosystems to respond to the needs of a diverse and dynamic society (Bormann and others 1994).

The DEIS will display a range of possible and desirable future conditions; propose means to achieve those conditions through land allocations and associated standards and guidelines; identify risks and trade-offs for the alternatives; and propose means to deal with uncertainties about what is known and unknown about the environment and its response to management.

Alternative Development

A range of reasonable alternatives will be developed, analyzed, and presented in the DEIS. Alternatives will vary in how they address the seven revision topics and the preliminary proposed actions for each topic. During alternative development, Forest Plan standards will be updated to reflect the management of each alternative. They will be changed to:

- Update existing land management planning concepts and to incorporate new concepts.
- Incorporate new management area prescriptions and boundaries.
- Remove unnecessary and repetitive direction.
- Reflect new scientific knowledge and incorporate changes in societal attitudes and beliefs.

A key step in alternative development is public scoping. Public scoping started on the KIPZ revision process on April 30, 2002 with the NOI to revise the Forest Plans. When scoping is complete, analysis of the comments received will provide direction for alternative development. The IDT will use the decision space framework described above and will consider public input to develop alternatives that:

- Are technically and legally possible to implement and present clear choices.
- Give consideration to national and regional issues.
- Make efficient use of resources.

To provide a more realistic analysis of the effects and the ability to implement each alternative, a budget analysis will be done for the alternatives. The 1987 Forest Plans were not created using budgetary constraints. Because of this, output levels were estimated that were not attainable given current budgetary allotments. Alternatives will be analyzed using current budget levels and possibly with increased or reduced budget levels. The intention of such analysis is to demonstrate what is reasonable in terms of outputs or outcomes for each alternative.

Proposed Action

KIPZ proposed to revise the KNF and IPNFs Forest Plans in the Notice of Intent (NOI), published in the Federal Register on April 30, 2002 [FR Doc. 02-10548]. Possible strategies, which were listed as Preliminary Proposed Actions in the NOI, are associated with the proposed action. These possible strategies are further defined in this document and the AMS Technical Report. These preliminary proposed actions or possible strategies were shared with members of the public through open houses, a newsletter, various meetings, and the KIPZ website. Comment letters have been received and a content analysis of them will be completed at the end of the scoping comment period.

Scientific thinking is varied and public expectations are not definitive for any of these revision topics, so a policy of adaptive management is integral to the preliminary proposed action. Adaptive management procedures will be used to adjust management direction for future events, changing knowledge, or dynamic social values. Adaptive management involves: (1) establishing desired outcomes and steps towards achieving them based upon scientific knowledge and assumptions about what it would take to reach desired ends, (2) conducting inventories, monitoring, and research to generate new information, and (3) adjusting management objectives and strategies in response to the new information. The preliminary proposed action identifies potential monitoring and research to provide the critical information needed to initiate management adjustments. Through adaptive management we learn from experience and use that knowledge to adjust policy.

No Action Alternative

NFMA regulations at 36 CFR 219.12(f)(7) state that "at least one alternative shall reflect the current levels of goods and services provided by the unit and the most likely goods and services expected to be provided in the future if the current management direction continues. Pursuant to NEPA procedures this alternative shall be deemed the No Action Alternative."

KIPZ is planning on analyzing an updated form of the No Action Alternative, which reflects current forest-wide direction for both forests. It will meet the NEPA requirement (36 CFR 219.12(f)(7)) that a No Action Alternative be considered. 'No action' means that current management allocations, activities, and management direction found in the 1987 Forest Plans, as amended, would continue. The amended management direction that will be analyzed includes such things as the Inland Native Fish Strategy (USDA 1995d), Grizzly Bear Access Management (USDA 2002d), Research Natural Area establishment, and the Off-Highway Vehicle Amendment (USDA 2001c) on the KNF.

In addition to analyzing the No Action Alternative as amended, the DEIS will evaluate modifications to direction provided in the 1987 Forest Plans. These include new definitions, and new technologies and inventories. Output levels will be recalculated for the No Action Alternative to comply with new information, in particular, new scientific and inventory data. The following are some of the key areas in which new definitions and/or new technologies and inventories may result in changes to projections made in the 1987 Forest Plans:

Timber suitability

Regulations at 36 CFR 219.14(d) state that "designation in the plan of lands not suited for timber production shall be reviewed at least every ten years" and that "such lands may be reviewed and re-designated as suited for timber production due to changed conditions at any time." To comply with this regulation, the suitable timberland base will be analyzed and a new model built to determine the ASQ. ASQ is based on the suitable timberlands, yield tables, economics, and standards and guidelines. Four standards will be used to determine whether a particular parcel contains ***tentatively suitable timberlands*** **(TSTL)**. The four criteria are:

- Is the land forested? (36 CFR 219.19 (A)(1)).
- Is the land withdrawn from timber production? (36 CFR 249.13(A)(4))
- Is irreversible resource damage likely to occur? (36 CFR 219.14 (A)(2))
- Is there reasonable assurance of adequate restocking within five years after final harvest? (36 CFR 219.14(A)(3))
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Implementation of INFISH standards and guides may also have had a direct effect on ***suitable timberlands*** **(STL)**. In determining STL, Geographic Information System (GIS) will be used to buffer streams and wetlands. The buffering will remove those acres and volumes from the ASQ determination. This reflects a change from the 1987 Forest Plans.

Areas allocated to resource uses that preclude timber production will be removed from STL. These areas may include designated old growth or RNA's that have been identified since the Forest Plans were developed. This is a change from the 1987 Forest Plans.

Changes to modeling ASQ

The land management planning model used to estimate ASQ for the 1987 Forest Plan was Forplan. For the new Forest Plans, the land management model will be Spectrum. The primary differences between the models and versions include:

- Allowing different types of land organizations;
- Minimizing the amount of data that must be repeated;
- Disclosing the ingredients in each choice;
- Staying away from functional bias;
- Allowing flexibility in problem formulation; and
- Ability to map the results.

In addition, the following components of the model will be updated:

Suitable timberlands – As explained above, the TSTLs will be analyzed and updated.

Yield tables – The yield tables for the proposed revised Forest Plans will be constructed with the Northern Idaho Variant of the forest vegetation simulation (FVS) growth and yield model, which is an individual-tree, distance-independent model. The modeling of complex stand structure is thus improved because no standard distribution of sizes is assured. This type of model has the capability to simulate growth of uneven-aged or multi-aged stands as well as mixed-species stands. Also, there is greater flexibility in specifying management options, because individual trees can be identified for removal.

Costs and revenues – Costs of timber management will be updated to reflect current costs and to implement standards and guidelines. In addition, the 1987 modeling did not consider the cost of entering roadless areas. The updated model will take these specific costs into account.

Modeling standards and guidelines – The modeling of standards and guidelines is improved under the Spectrum model. The 1987 FORPLAN model did not adequately consider the standards and guidelines necessary to meet visual quality, watershed and wildlife objectives. For example, evolving direction for Threatened and Endangered Species such as Lynx or Grizzly bear has not been adequately considered as to its effects on the two forest's ASQ. This direction has had an effect on the amount of timber harvest that was projected under the 1987 Forest Plans. The objectives for these resources can now be better modeled because of the improved modeling capability under Spectrum.

The discussion above demonstrates the variety of changes (Spectrum model, yield tables, data, guidelines, TSTL) that have occurred since the 1987 Forest Plans were prepared. These changes are expected to result in an annual ASQ level that is different than those projected in the 1987 plans.