**Recreation Opportunity Spectrum (ROS) User Guide Revision**

*Goal: revise the ROS User Guide to assist forests in managing recreation settings and modern recreation activities in concert with other natural resources*

# ROS User Survey July 2010

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# Executive Summary

All regions were well represented in the 216 survey responses that were tallied, including one respondent from the Bureau of Land Management, which also uses ROS. Respondents hold a variety of positions: recreation or forestry technician, recreation planner, landscape architect, recreation officer, district ranger.

The majority of respondents is self-taught. To receive new training, a small majority selected a guidebook as the best way, with a slightly smaller percentage choosing Web-based training followed very closely by onsite training with an instructor.

The majority of respondents do not use ROS daily; however most use it monthly for everything from reviewing projects in appeals and litigation, to designing construction, to project discussions and management prescription. Comments about daily use spoke to this range of use, for example: "As a District Ranger all project proposals I sign are applicable to ROS; " we are doing little recreation planning right now, so ROS is not utilized much"; and "ROS is applicable in my job to link ROS use to user desires with recreation opportunities and settings. "

There seems to be wide-spread confusion about ROS in general and specifically about what it is and isn't used for and by whom. These are sample responses, "It's not very applicable to the [name of forest], we are highly roaded." and "once the plan was made you are… not really dealing with ROS in an active way."

Fifty-eight percent of respondents were "Unsure" if the ROS GIS mapping protocol was used to develop the forestwide ROS inventory. Of the 8 percent who did use the protocol the vast majority (86 percent) found it helpful.

When respondents were asked to describe the best aspects of ROS, they were very positive about it being an excellent tool for classification, consistent, and easy for the public to understand. One respondent offered: "…it allows you to describe the range of opportunities and distinguish between management actions that are or are not appropriate in that range."

"Please explain the coefficients!!!!" was a common theme when asked for comments on changes or additions to ROS. Other common comments included:

- Update with current uses.
- Make it more pertinent to the eastern forests.
- Define to today's standards and ensure consistency forest to forest, and even within a forest.
- Clarify confusion with semi-primitive, primitive, and wilderness; and with roaded natural and the sometimes added class of roaded modified.
- Consolidate information into a revised guide.

- Explain how to use ROS in management and how to involve other disciplines.

Training was the most frequently mentioned response when asked what changes or additions to ROS do you suggest. Training line officers and other disciplines was mentioned more than once.

## Background

The recreation program at the San Dimas Technology and Development Center has been tasked with consolidating and updating the ROS user guidebooks and extraneous chapters. The current ROS user guidebooks provide direction on development of the ROS classes that is outdated. Additional project products could include onsite and Web-based training, literature, and links to recreation management sites.

Outdoor recreation has increased dramatically since the guidebooks were developed in the late 1970s and early 1980s. Types of recreation activities continue to grow and technologies related to recreational pursuits are continuing to be developed. "As recreation use of national forests continues to grow, so does the recreation-based revenue of surrounding communities. The administration released a report July 7 that says Forest Service recreation generates about $13 billion per year in expenditures in communities within 50 miles of national forests." (Federal Parks and Recreation, 28, (14) July 16, 2010)

The guidebook revision will facilitate its use in forest plan revision efforts. The guidebook revision also will help forest staffs manage modern recreation uses and opportunities, and the technologies used to pursue activities, while managing natural resources.

## Survey

The purpose of the survey was to gain an understanding of who is using ROS, how ROS is being applied, what are the most useful components of ROS, what aspects of the ROS system need to be updated, and what type of training is needed.

An online survey was created for administration through Survey Monkey[1] and email invitations were sent out to multiple public distribution lists (pdl); the number of members in each is unknown. This report presents a summary of findings derived from the survey effort and reflects findings from those who responded. Findings are not presented as representative of all opinions in the agency, but they do present valuable information that can be used in understanding and refining ROS.

[1] The use of trade or firm names in this paper is for reader information and does not imply endorsement by the U.S. Department of Agriculture of any product or service.

This report is divided into several parts:

- Results.
  - Section 1 discusses grouped questions, questions that have a common thread. They are:
    - ROS comfort level and training needs.
    - Relevance of ROS to daily job routine.
    - Use of ROS in program of work development.
    - Use of ROS in NEPA/planning.
  - Section 2 discusses all other questions.
- Conclusions.
- Implications.
- Draft recommendation.
- Appendix A - a complete listing of the questions with numerical responses.
- Appendix B - respondents' comments verbatim for each comment-type question.

# Results

## Respondents

A total of 234 respondents provided a sufficient number of responses to be included in the analysis for this report (18 were excluded for failing to provide more than 25 percent of the responses needed). Respondents worked for forests across the United States and Puerto Rico (181), regional offices (17), the Washington Office (10), and Enterprise Units (12), research (2), T&D Center (1), and the BLM (4). A complete listing of number of respondents assigned to each forest can be found in the appendix A, question 1. Among those assigned to forests or regions, respondents were distributed across the U.S. (figure 1).

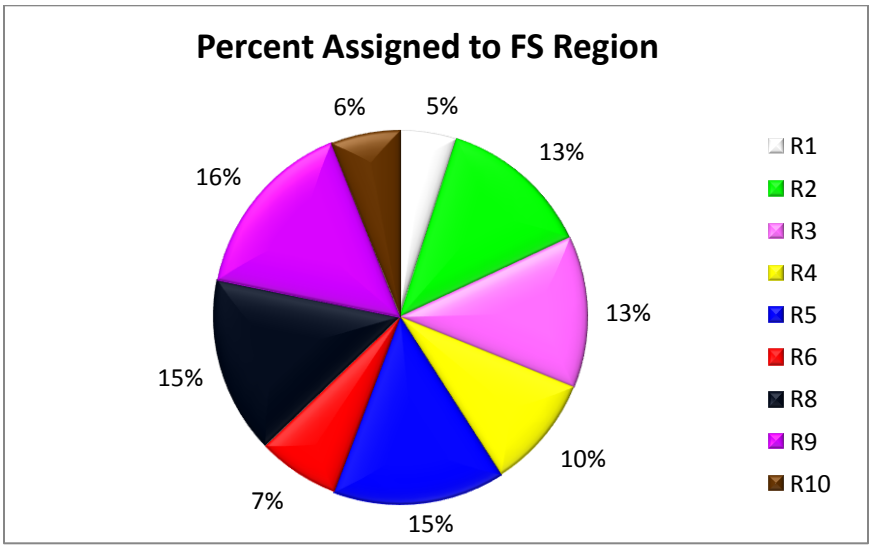


Figure 1. Percent of respondents assigned to region or forest by region.

Respondents held a variety of positions in the agency (figure 2). The number of respondents within these job titles by region appears in appendix A, question 2.

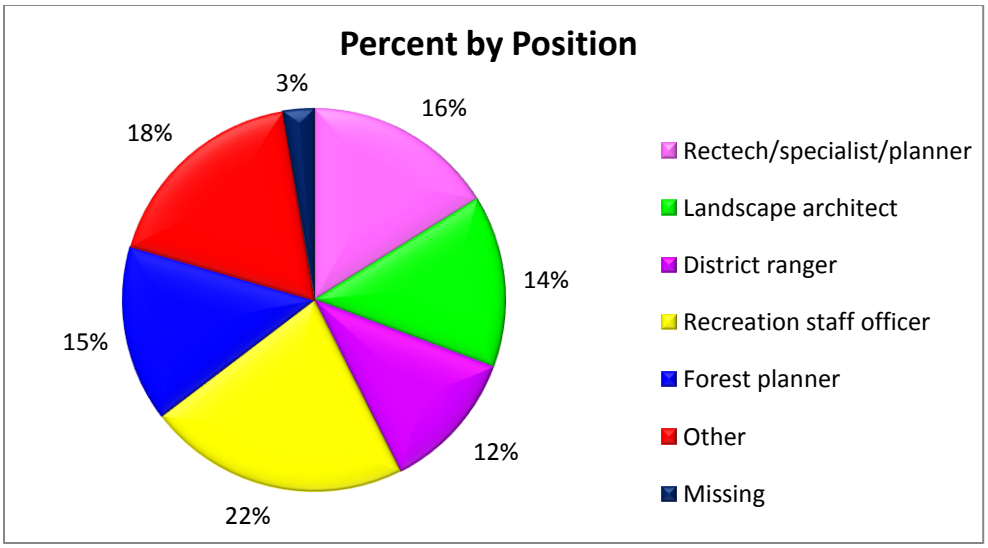


Figure 2. What is your position?

# *Section 1 – Grouped Questions*

## ROS Comfort Level and Training Needs

Slightly more than one-half of respondents had ROS training through self-study, although one-fourth reported no training at all (figure 3; appendix A, question 3).

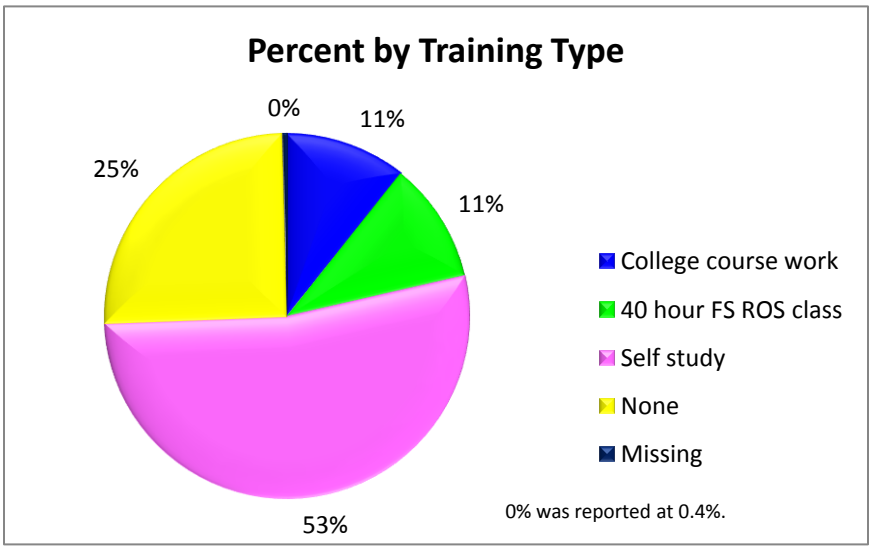


Figure 3. Have you had any training?

Depth of understanding of the ROS system was described as ‘strong’ by one-third of the respondents, and more than one-third rated their understanding as ‘moderate’ (figure 4; appendix A, question 4).

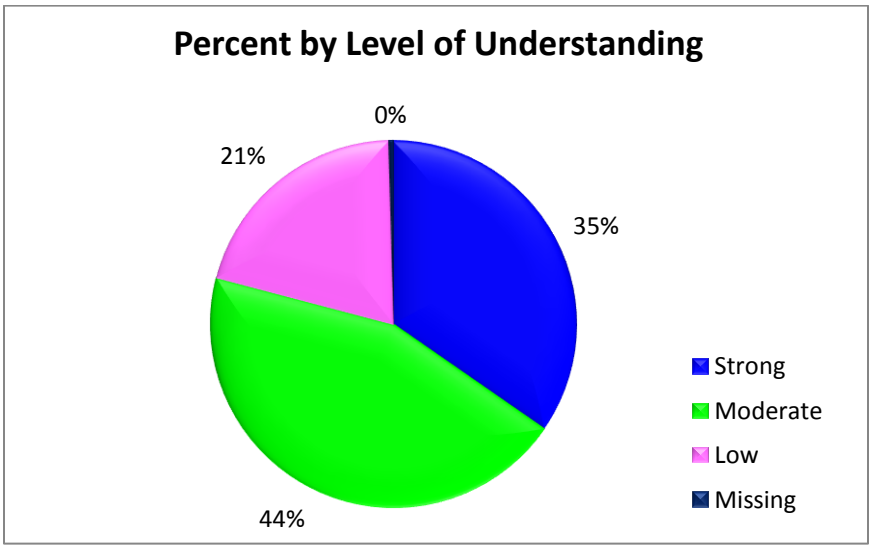


Figure 4. What is the depth of your level of understanding of the ROS system?

When asked which ROS Guidebooks they had, respondents tended to list multiple books and resources. Not considering those who provided answers that could not be linked to a specific item, e.g., “the old one,” 19 separate resources were identified. However, most often mentioned were the 1986 ROS Guidebook (red book), and the ROS User’s Guide (figure 5; appendix A, question 6).

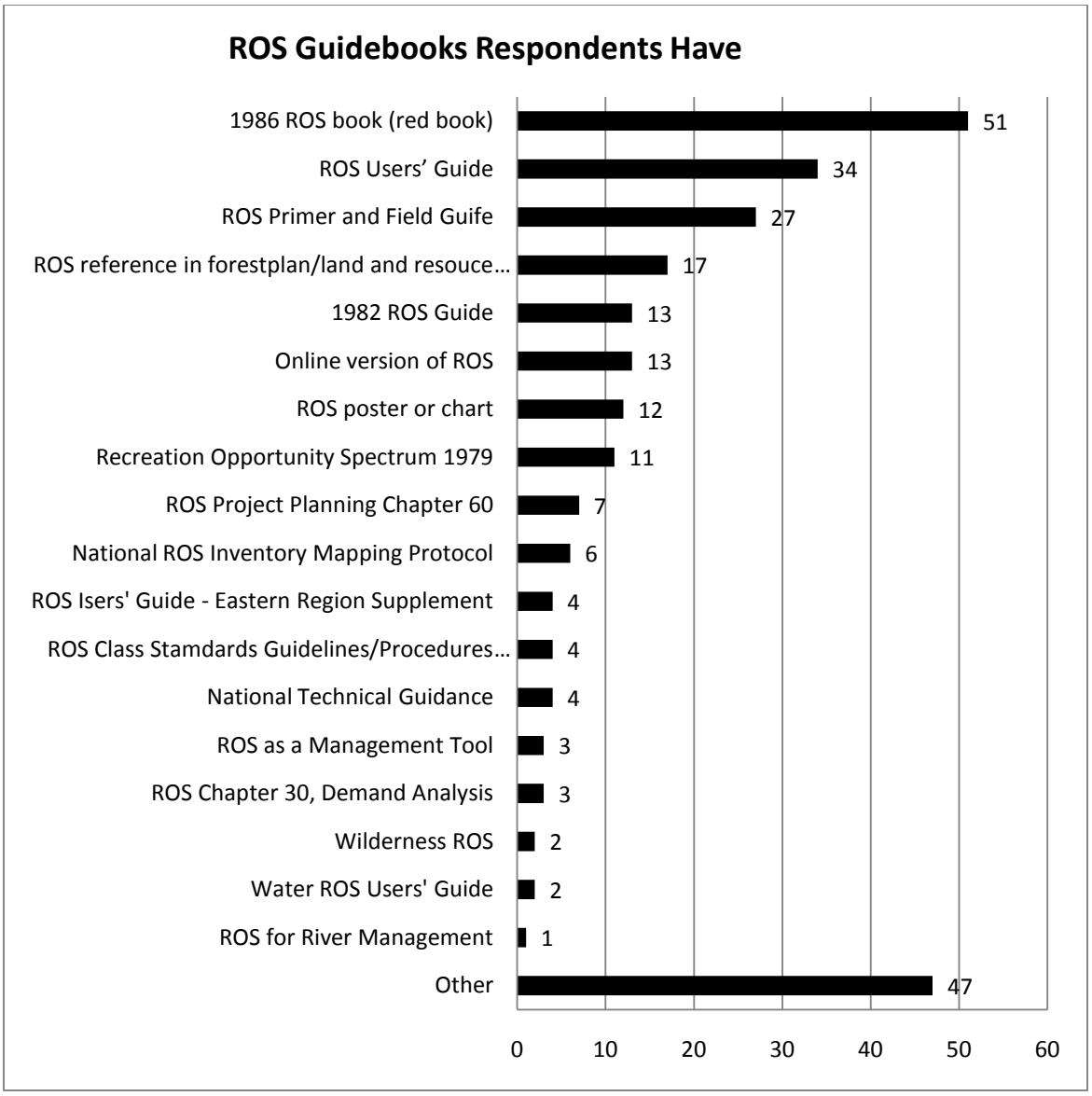


Figure 5. List the ROS guidebooks you have.

Respondents were evenly split between those indicating they were aware and not aware of the Wilderness ROS, Water ROS, and Wild and Scenic River ROS tools (figure 6; appendix A, question 7).

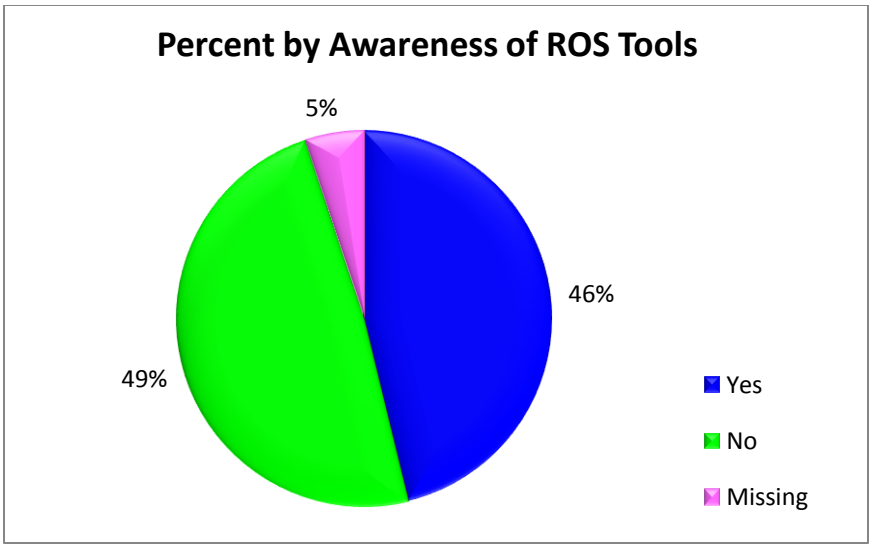


Figure 6. Are you aware of Wilderness ROS, Water ROS, and Wild and Scenic River ROS?

When asked which specific tools they used, one-fifth indicated Wilderness ROS, one-tenth selected Wild and Scenic Rivers ROS, and a few used the Water ROS (figure 7; appendix A, question 7). A few also indicated they used other tools aside from the three just listed, including the Alaska Water ROS, the Heritage Opportunity Spectrum, ROS Demand Analysis Criteria, a forestwide ROS application and the general ROS, and the ROS matrix.

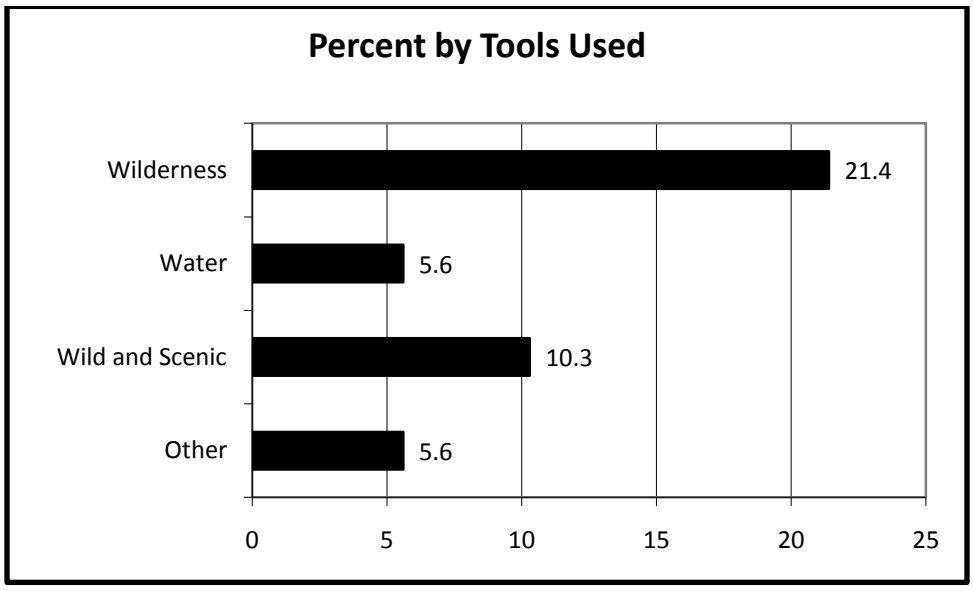


Figure 7. Specific ROS tools used by respondents.

More respondents were unsure if ROS training was available than those who were sure it was, or were sure it was not (figure 8; appendix A, question 38). Comments indicated that training is available through regional universities, but seems limited. Several expressed concern

that if it were available they would not have time to attend. Others mentioned online training might be most helpful to them. Several mentioned that the last training was some time ago. One respondent suggested that learning by doing with a knowledgeable person would be best.

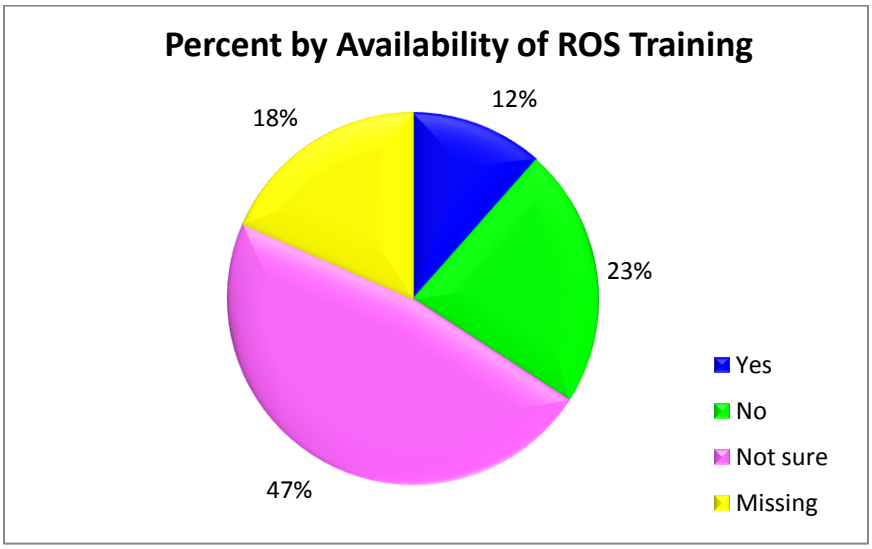


Figure 8. Is ROS training available to you?

Among the five options presented for type of training that would be most beneficial a majority, or near majority, selected published guidebook, self-paced web-based training (without instructor), and onsite training with instructor (figure 9; appendix A, question 39). Some respondents offered comments on training. A few felt that all of the listed types of training would be helpful; two felt that no training was needed. A number of suggestions may be helpful in planning for training (see appendix B, question 39).

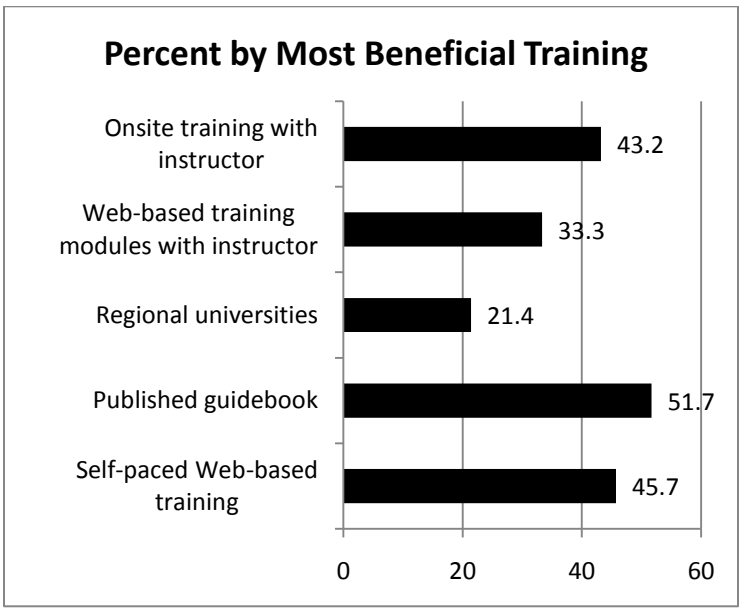


Figure 9. What type of training would be most beneficial? Choose all that apply.

Most respondents were not interested in being a member of a train-the-trainer cadre if one were developed (figure 10; appendix A, question 40), though about one-fourth expressed interest. Comments were varied in response to this item. Respondents indicated they had too many other commitments, they were retiring soon, they might be interested depending on how it was revised, they would definitely be interested, and some offered detailed background on their experiences with ROS ( appendix B, question 40).

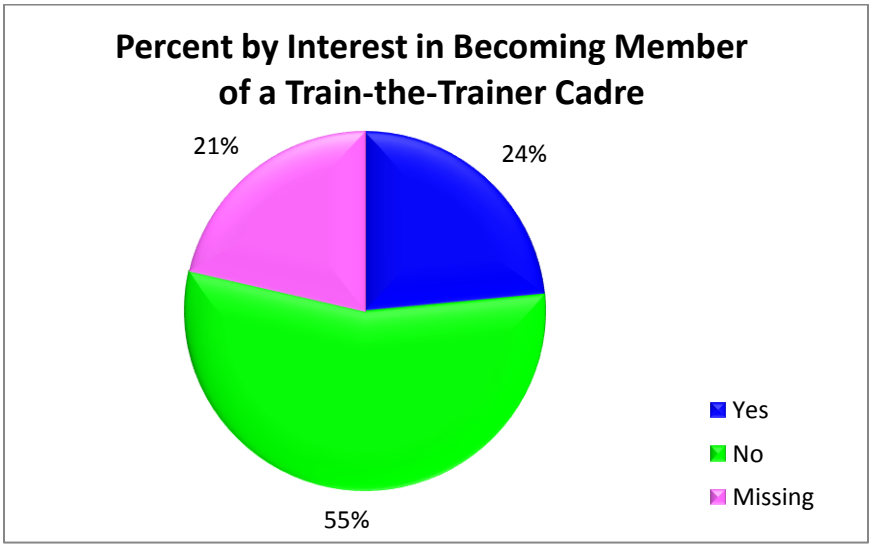


Figure 10. Are you interested in membership in a train-the-trainer cadre if developed?

## Relevance of ROS to Daily Job Routine

Respondents were asked to indicate which forest staff use the ROS system. The majority indicated recreation planners, landscape architects, forest planners, recreation staff officers, and NEPA coordinators would use the system (figure 11; appendix A, question 5). A few staff types were mentioned beyond this list, but each was mentioned only once.

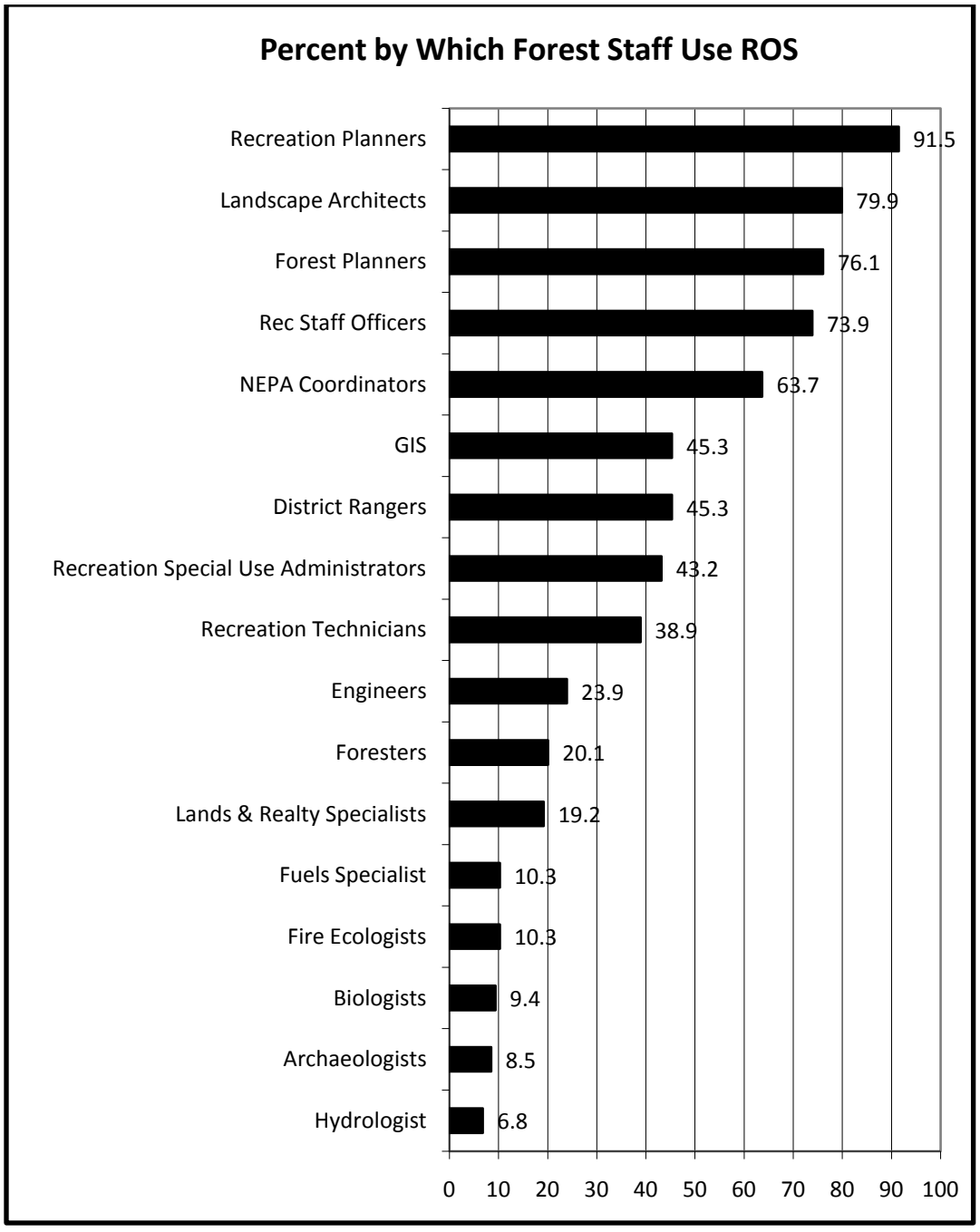


Figure 11. Which forest staff use the ROS system?

## Frequency of Use of ROS to Perform Job

About one-fourth of respondents used ROS monthly and another one-fifth annually (figure 12; appendix A, question 8). Among the 'other' responses offered, respondents most frequently used ROS on an as-needed basis for projects.

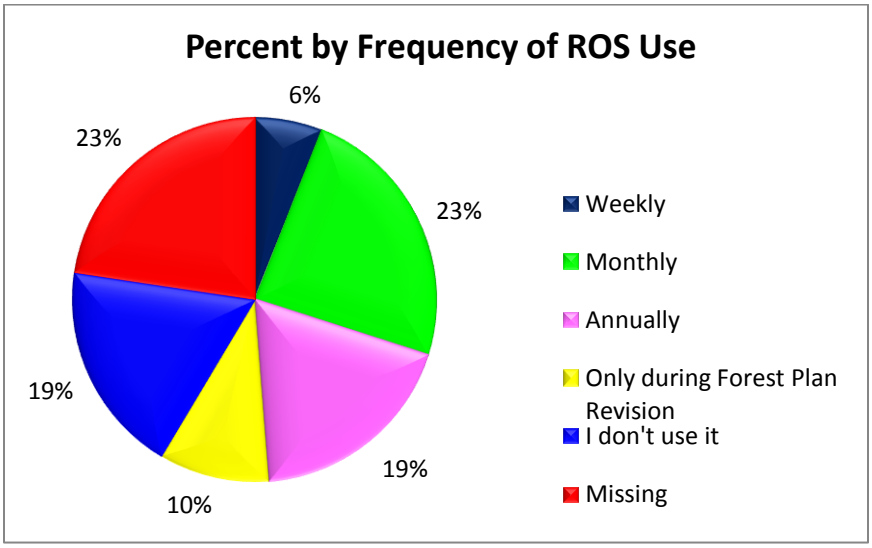


Figure 12. How frequently do you use ROS to perform your job?

Applicability of ROS in daily job routine was rated by the majority as low, however more than one-tenth viewed ROS as very applicable (figure 13; appendix A, question 9). An assortment of comments addressed applicability of ROS. Some suggested that ROS would be more applicable if they understood it better, or if it was more up to date. Others suggested it was not at all applicable. However, many offered remarks emphasizing its applicability and insights into how it is used (see appendix B, question 9).

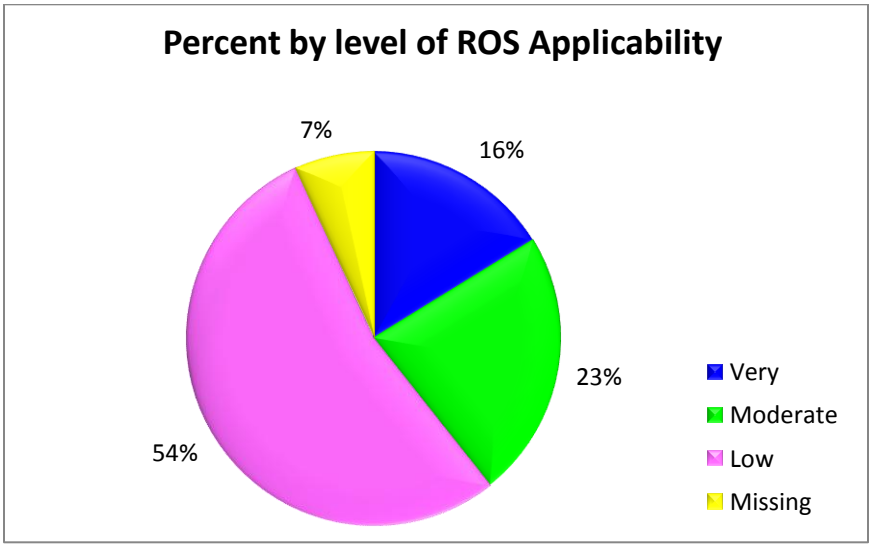


Figure 13. How applicable is ROS in daily job routine?

To explore a specific application, respondents were asked "When the forest developed the forestwide ROS Inventory did it include seasonal ROS inventories for winter and summer?" Most either did not answer this question, or said that it did not include these inventories (figure 14; appendix A, question 13). Many open-ended comments indicated respondents did not know if these inventories were included. Others mentioned winter inventories; a few mentioned summer. Some suggested that the range of uses made a winter inventory inapplicable. Another indicated that this would not be an inventory, but a management decision requiring clarification from recreation.

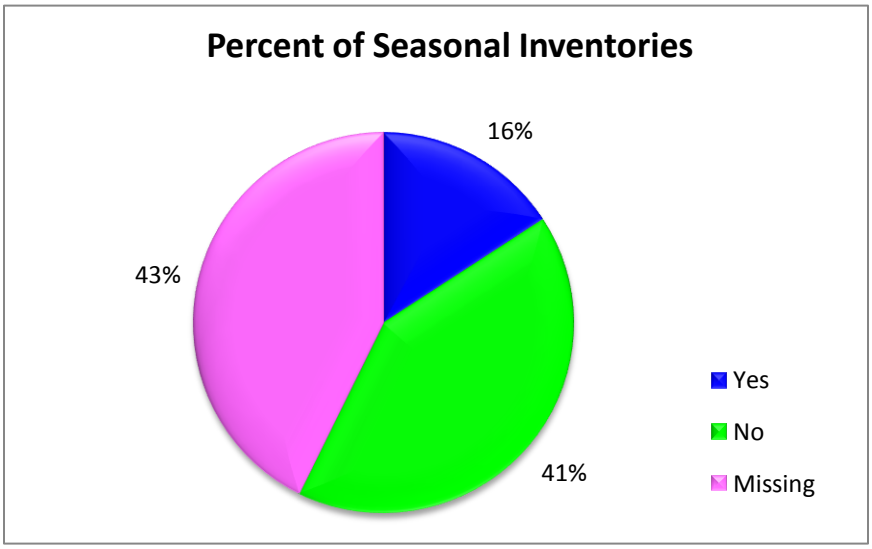


Figure 14. When the forest developed the forestwide ROS inventory did it include seasonal inventories for winter and summer?

## Use of National ROS GIS Protocol

Respondents were asked to indicate if the National ROS GIS Inventory Mapping Protocol was used to develop the inventory. While the majority were unsure (figure 15; appendix A, question 15), about one-tenth indicated that it was used, and more than one-tenth that it was not.

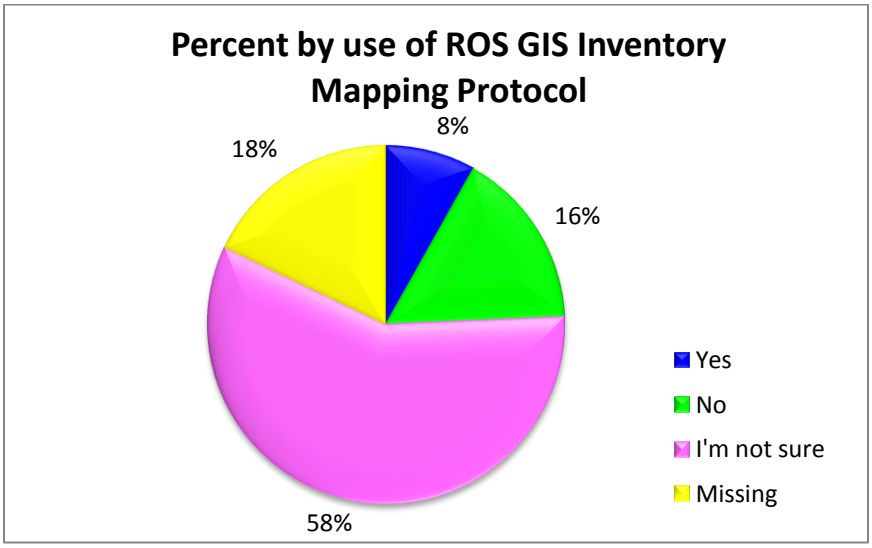


Figure 15. Was the National ROS GIS Inventory Mapping Protocol used to develop the inventory?

Respondents were asked to indicate how helpful the National ROS GIS Protocol was if it was used (figure 16; appendix A, question 15). Few rated it as very, moderately, or minimally helpful (each less than 6 percent of the respondents. Many wrote 'not sure' or a similar response in the comment section for this question.

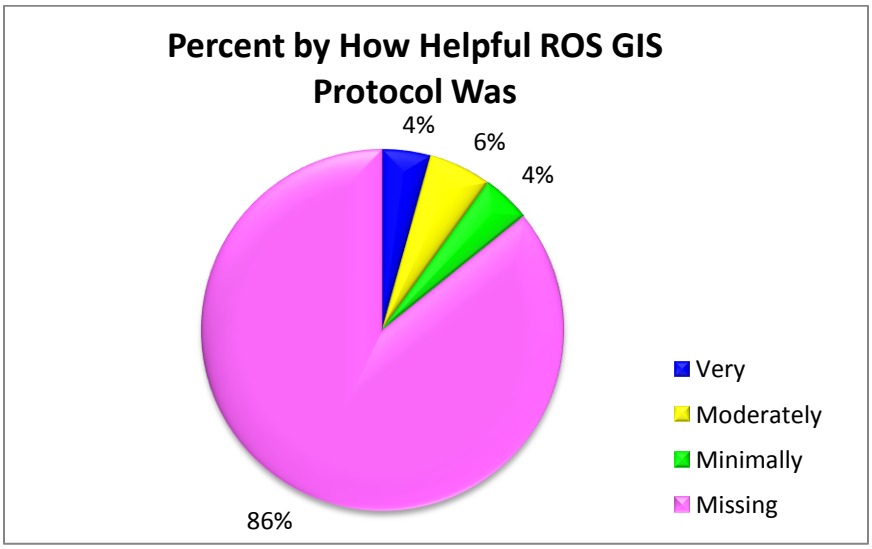


Figure 16. If the National ROS GIS Protocol was used, how helpful was it?

Those who indicated that the protocol was minimally helpful were asked to provide comments (appendix B, question 15). Of the 10 respondents 6 provided comments, with most suggesting they did not know or were unsure. Another indicated that the protocol did not exist the last time their ROS was updated. Another offered "Over emphasis on the presence of roads. This is especially problematic on the grasslands, where in many places there is a non FS road on nearly every section line. These are definitely areas that we manage for semi primitive motorized, recognizing a difference in the type of landscape."

A few offered comments, but had not chosen 'minimally' as their response to how helpful the protocol was. Two of these suggested that the protocol was modified, in one case 'slightly', in the other 'quite a bit'. Another respondent wrote "In general, our experience has been that accurately classifying any setting's existing physical, social, and setting attributes (as well as prescribing future setting character conditions) requires thinking beyond what can be programmed." Other frequently offered comments suggested that respondents were not sure how helpful the protocol was, or if it was used.

Respondents also were asked if an interdisciplinary team ground-truths or analyzes the compatibility of specific recreation activities with the bio-physical resources to ensure sustainable recreation management. About one-third indicated this was done, another fifth said it was not (figure 17; appendix A, question 16). Those offering comments suggested that this work would be done during plan revision, mostly by interdisciplinary teams, or would be dependent on the project or specific staff. A number of mentions included NEPA as a determining factor in whether or not this would take place (see appendix B, question 16).

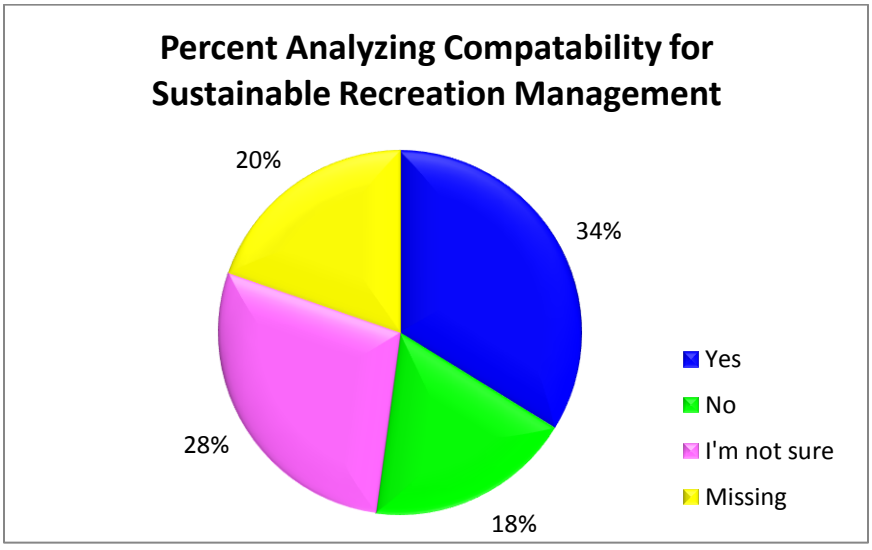


Figure 17. Does an interdisciplinary team ground-truth compatibility of recreation activities with bio-physical resources to ensure sustainable recreation management?

According to respondents, the forest primarily displays the ROS inventory using GIS coverage (53.4 percent), as a description in the forest plan (52.1 percent) , and as a map in the

forest plan (43.2 percent) (appendix A, question 18). Some mentioned other forms of displaying an ROS inventory, including as an appendix in the forest plan (2 mentions), tables in each management area by class (2 mentions), as a geodatabase (1 mention), in an FEIS for forest plan (2 mentions), descriptions in the plan (2 mentions), as GIS layers (2 mentions), in the INFRA database (1 mention), in the scenery management system (SMS) (1 mention) or in a forest ROS-SMS guidebook (1 mention). A few comments indicated that the inventory does not belong in the forest plan.

Respondents were asked if the forest staff monitor settings for maintaining or enhancing the ROS classes. About one-fifth each said it was or was not, while about one-third were unsure (figure 18; appendix A, question 20). Various comments were offered for this topic suggesting that monitoring is not done because of a lack of resources; or that it is done informally, on a project basis, or during plan revision (see appendix B, question 20).

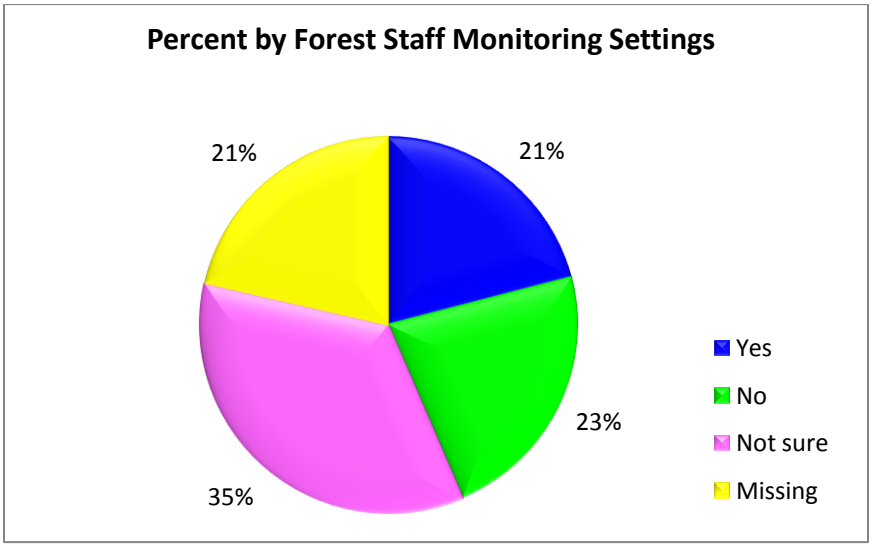


Figure 18. Does the forest staff monitor settings for maintaining or enhancing the ROS classes?

Respondents also were asked if ROS monitoring is included in the forest annual monitoring report. About one-third were unsure if this was included, about one-tenth reported that it was (figure 19; appendix A, question 21). Open-ended comments varied. Some respondents commented that it should be included, while others specifically stated that it should not be. A few indicated a 5-year cycle to this type of reporting, or even a 10-year cycle within the forest plan. Some indicated that change would be necessary to initiate inclusion in the report. Complete remarks in response to this question appear in appendix B, question 21.

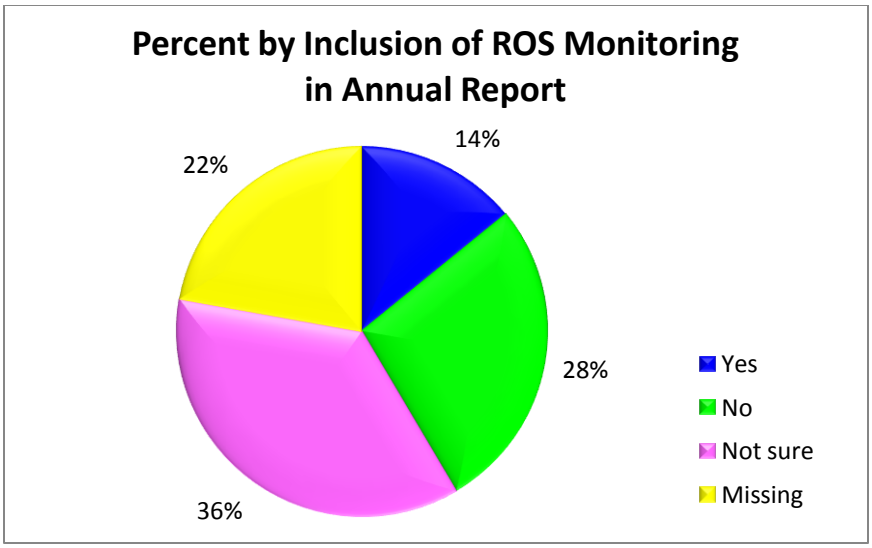


Figure 19. Is ROS monitoring included in the forest annual monitoring report?

## Use of ROS in Program of Work Development

Inclusion of ROS to develop the forest program of work was queried. All respondents said they were not sure if ROS was used to develop any component (appendix A, question 29). However, comments offered by several respondents offer insights into this pattern of response. A few mentioned budgetary constraints. In other cases comments suggested this was done informally, or indirectly. Other comments pointed to circumstances where issues central to ROS would be applied, but through different means (see appendix B, question 29).

While respondents were unsure about the last item, a near-majority indicated that ROS was used when planning or retrofitting existing recreation sites (figure 20; appendix A, question 31). A few comments were offered in response to this question. Some indicated that this was done minimally or not at all (either due to lack of retrofits or lack of knowledge for use in planning). A few suggested this would be considered project-level planning. One pointed out they assumed the question was focused on developed sites, another said this was used mostly in roaded natural settings. Another respondent pointed out that ROS may conflict with maintenance issues, leading to a different outcome (see appendix B, question 31).

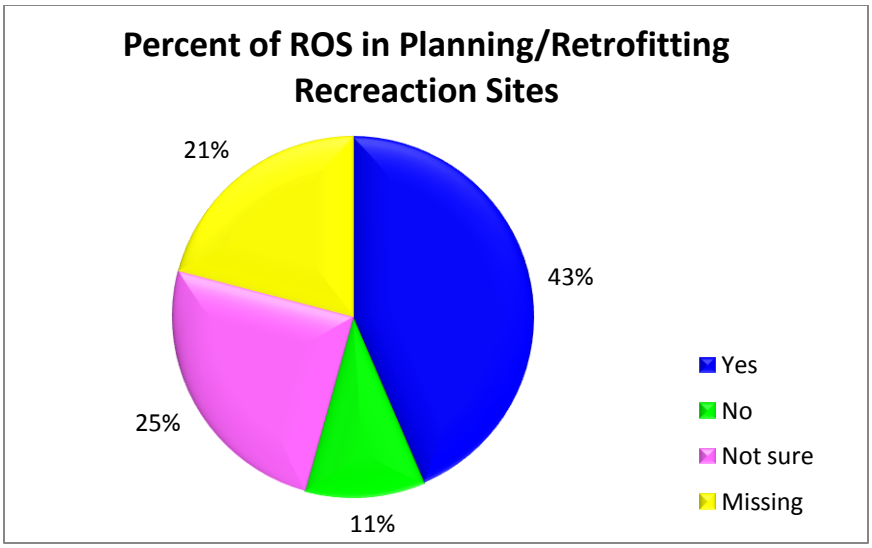


Figure 20. Is ROS used when planning or retrofitting existing recreation sites?

Respondents were asked if their forest uses ROS to make on-the-ground decisions. More than one-third suggested that their forest did (figure 21; appendix A, question 32), however one-fourth were not sure. Comments indicated this might occur during travel management decisions, for facility design, for proposed action formulation, for wilderness recreation, for maintenance activities, and for special use decisions (see appendix B, question 32).

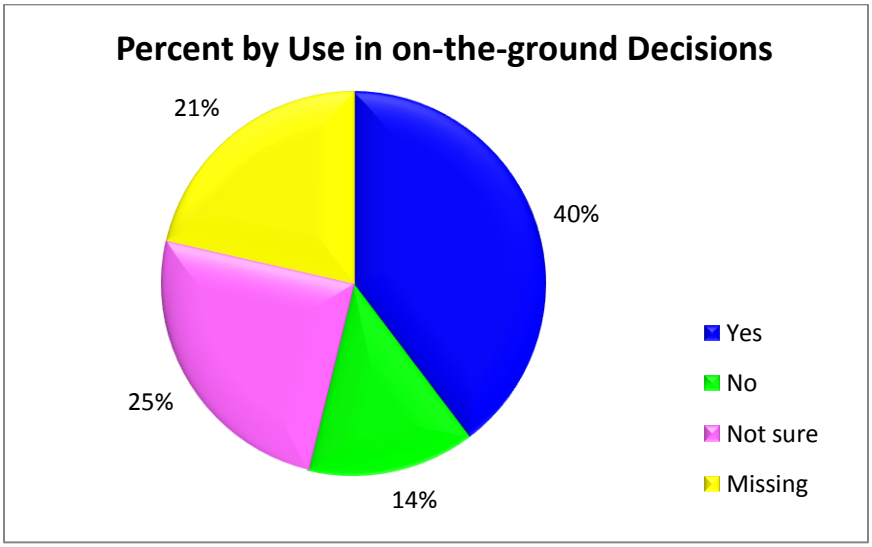


Figure 21. Does your forest use ROS to make on-the-ground decisions?

Finally, within the questions focused on program of work, respondents were asked if the forest is using ROS to develop recreation capacity for special use permits. About one-fifth indicated the forest was using ROS in this manner, while about one-fourth said they were not (figure 22; appendix A, question 33). Comments suggested a need for this ability but seemed to indicate this was rare or needed support for additional application (see appendix B, question 33).

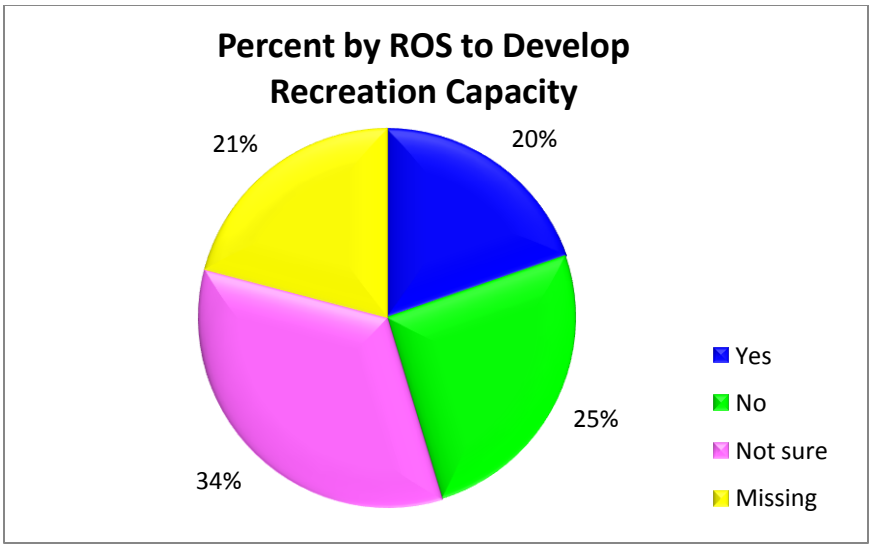


Figure 22. Is the forest using ROS to develop recreation capacity for special use permits?

## Use of ROS in NEPA/Planning

Use of ROS in the NEPA process was queried. A near majority suggested that it was used (figure 23; appendix A, question 22). Comments on this item suggested that this was done when applicable, or specifically when a recreation component was involved. Others pointed to the dependence on staffing. A few mentioned that NEPA always included ROS (see appendix B, question 22).

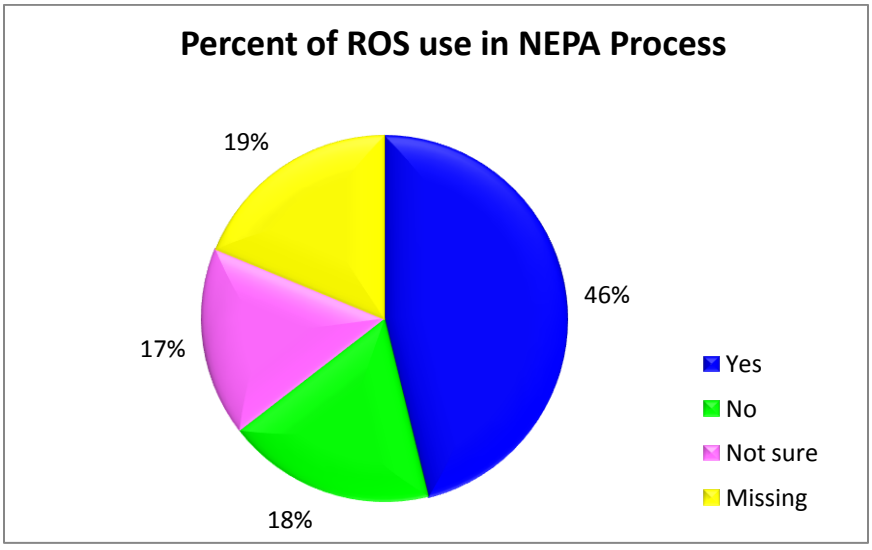


Figure 23. Does forest staff routinely use ROS in the NEPA process?

Respondents also were asked if ROS or any of its components were used in the national forest management act side of project planning. More than one-third indicated that this was

done, while about the same number were unsure (figure 24; appendix A, question 23). Most comments indicated this was rare, or infrequently done. In other cases, the specific applications were mentioned (see appendix B, question 23).

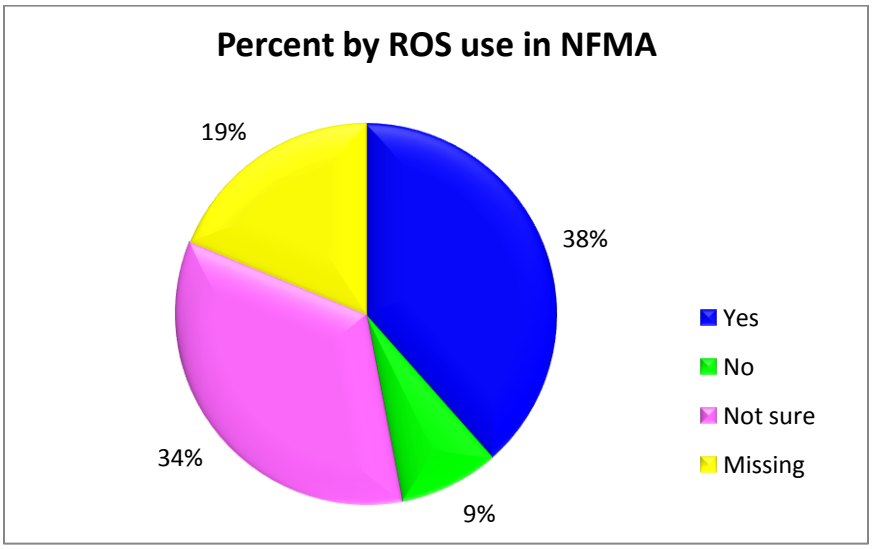


Figure 24. Is ROS or any of its components used in the NFMA-side of project planning?

Respondents addressed the question "Is ROS or any of its components described in the affected environment section of project level analysis?" About half said yes, and about one tenth said no (figure 25; appendix A, question 24). Open-ended comments suggested that it depends on the project and is done if applicable (18 mentions); that this occurs sometimes (10 mentions); if a recreation project is involved (7 mentions); and that it depends on staffing (2 mentions). An assortment of other comments was offered that are too diverse to categorize by themes (see appendix B, question 24).

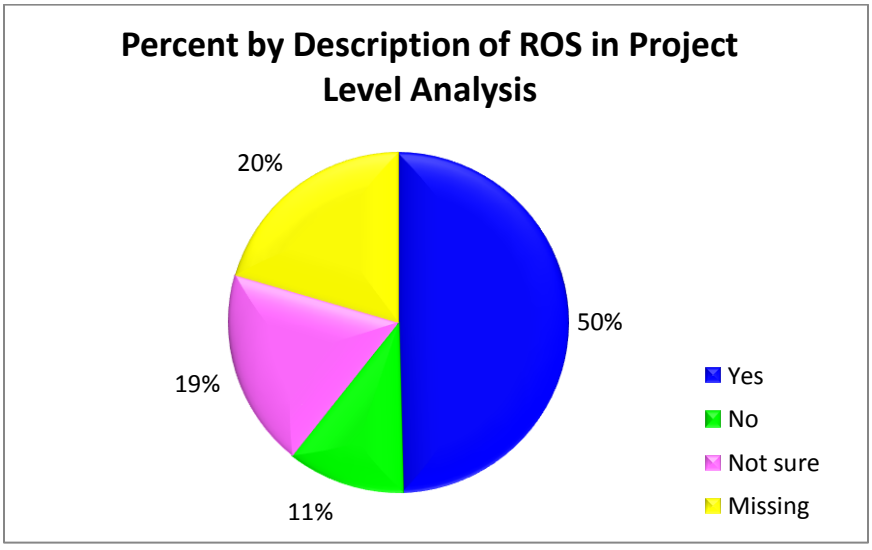


Figure 25. Is ROS or any of its components described in the affected environment section of project level analysis?

Respondents were asked, "Does the environmental consequences section include effects that would change ROS classes or any components of ROS to inform the line officer of the consequences of a decision?" About one-third indicated that it did (figure 26; appendix A, question 25). Comments offered in addition were varied. Nine remarks suggested this was rare; seven indicated this would be project specific, or would depend on the project; four indicated this would occur in situations involving travel management or planning; two indicated this would be so if an ROS standard was in place; and another two mentioned that were this to occur a plan amendment would be needed to change ROS classes (see appendix B, question 25).

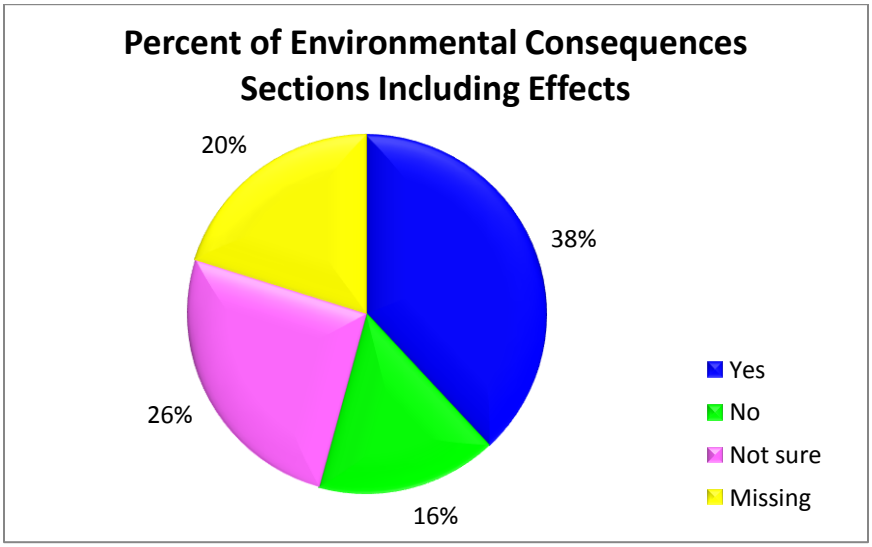


Figure 26. Does the environmental consequences section include effects that would change ROS classes or any components of ROS to inform the line officer of the consequences of a decision?

Respondents were asked if projects are initiated based on the need to change forest characteristics to attain the desired recreation setting/ROS class. While more than one-tenth said this was done, more than one-third indicated it was not (figure 27; appendix A, question 26). Some comments suggested this rarely happened. In some cases this was a funding issue, in others this was project specific or not related to ROS. A few mentioned wilderness projects as a specific example where this had occurred (see appendix B, question 26).

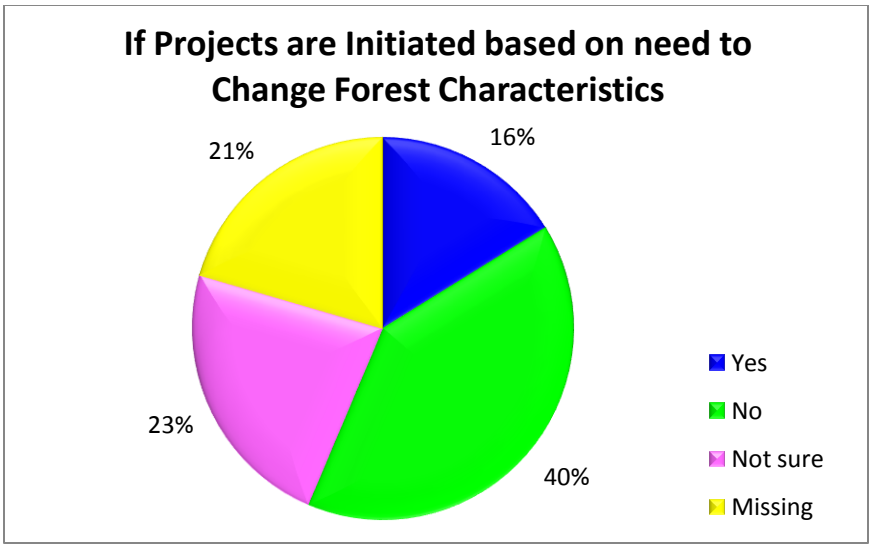


Figure 27. Are projects initiated based on the need to change forest characteristics to attain the desired recreation setting/ROS class?

The last question focused on planning and asked respondents to consider if ROS is used for decisionmaking in travel management planning on their forest. A near majority indicated this was done (figure 28; appendix A, question 34). A few comments were offered; these help understand more details on this example of use of ROS (appendix B, question 34).

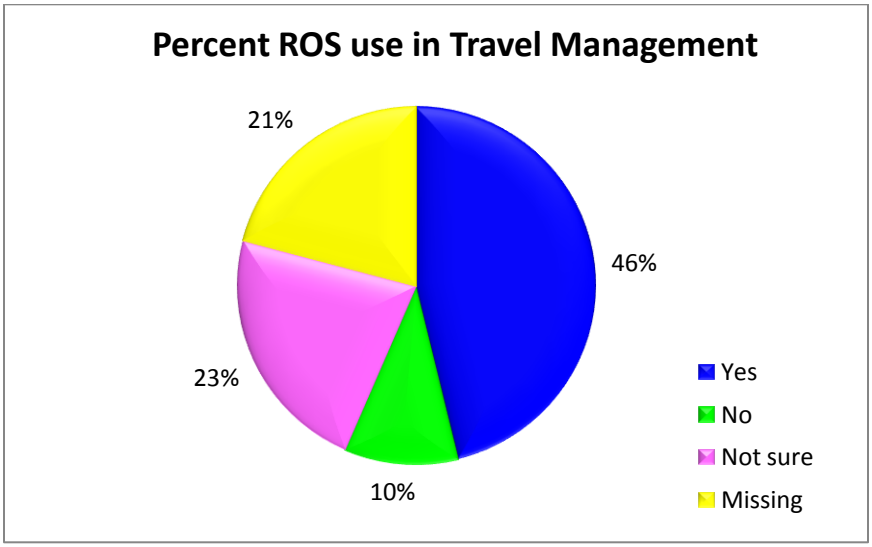


Figure 28. Is ROS used for decisionmaking in travel management planning on your forest?

# SECTION 2 – DISCUSSION OF OTHER QUESTIONS

**Does forest staff have the skills and tools to develop an ROS inventory?**

Respondents were asked if forest staff have the skills and tools to develop an ROS inventory. About one-third felt the skills and tools were available, where about one-tenth felt the skills and tools were not present (figure 29; appendix A, question 10). Comments offered on skills and tools were varied and ranged from those that indicated a lack of interest or usefulness, to lack of staff or resources, to need for training. Some mentioned specific job positions where these skills reside, or examples of when these skills and tools were used (see appendix B, question 10).

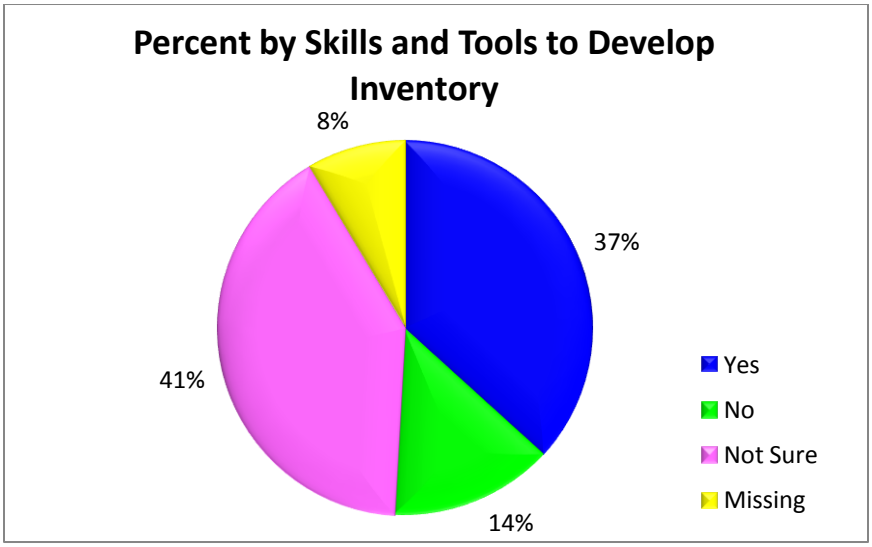


Figure 29. Does forest staff have the skills and tools to develop an ROS Inventory?

**How does forest develop the ROS inventory?**

Following this question on skills and tools, respondents were asked how their forest develops the ROS inventory. Respondents offered a varied of answers, with several saying they did not know or did not have a clue. Others assumed this was done during forest planning. Beyond these, the specific steps were outlined by a number of respondents. All answers to this question appear in their entirety in appendix B, question 11).

**When was the forest ROS inventory completed?**

Respondents were asked to indicate when the forest ROS inventory was completed, and to provide dates of any subsequent updates. A number were not sure on precise timing of either

the initial inventory or updates. Responses varied tremendously, and are presented by region in appendix A, question 12.

**Was the public involved in developing any components of the ROS inventory?**

Nearly one-fifth indicated the public was involved in developing components of the ROS inventory, while about half were unsure (figure 30; appendix A, question 17). The consensus among those who offered comments on this item was that involvement took the form of public comment and meetings during forest plan revision. Others mentioned NEPA process, or the roadless process. It was rare to have publics comment on the actual maps. A few mentioned that comments were invited, but few were received from the public, and in some cases, attributed a lack of interest to the public.

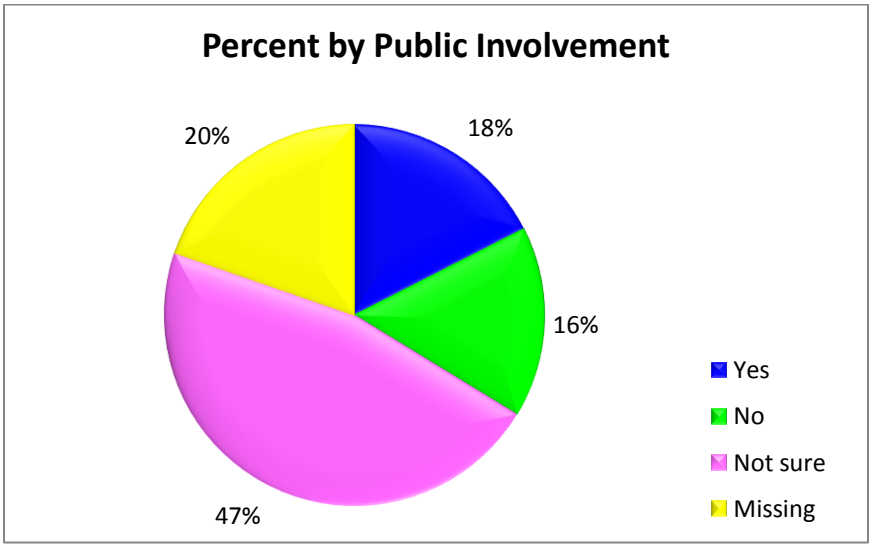


Figure 30. Was the public involved in developing any components of the ROS Inventory?

**What type of management direction related to ROS is provided in the forest plan?**

Respondents were asked what type of management direction related to ROS is provided in the forest plan. Most common were standards and guides, prescriptions, or goals. In other cases this was described as minimal, or nonexistent. Comments are included verbatim in appendix B, question 19.

**Does the forest research demand and trends for recreation activities?**

More than one-third indicated that the forest researches demand and trends for recreation activities, although more than one-tenth indicated they do not (figure 31; appendix A, question 27). Comments offered in addition to this were primarily focused on obtaining national visitor use monitoring data, in some cases relying on other data on recreation, and in one case collaborating with a university to gather this information. Remarks are included in their entirety in appendix B, question 27.

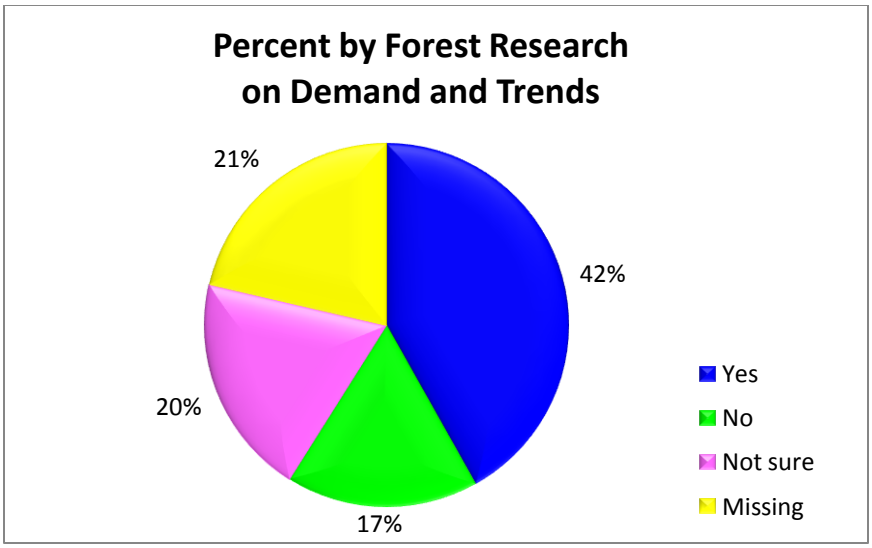


Figure 31. Does the forest research demand and trends for recreation activities?

Respondents were then asked their own perceptions of what recreation activities were in high demand on their forest. The top five activities mentioned were hiking, OHV/ATV/motorized, hunting, fishing, and camping (figure 32; appendix A, question 28).

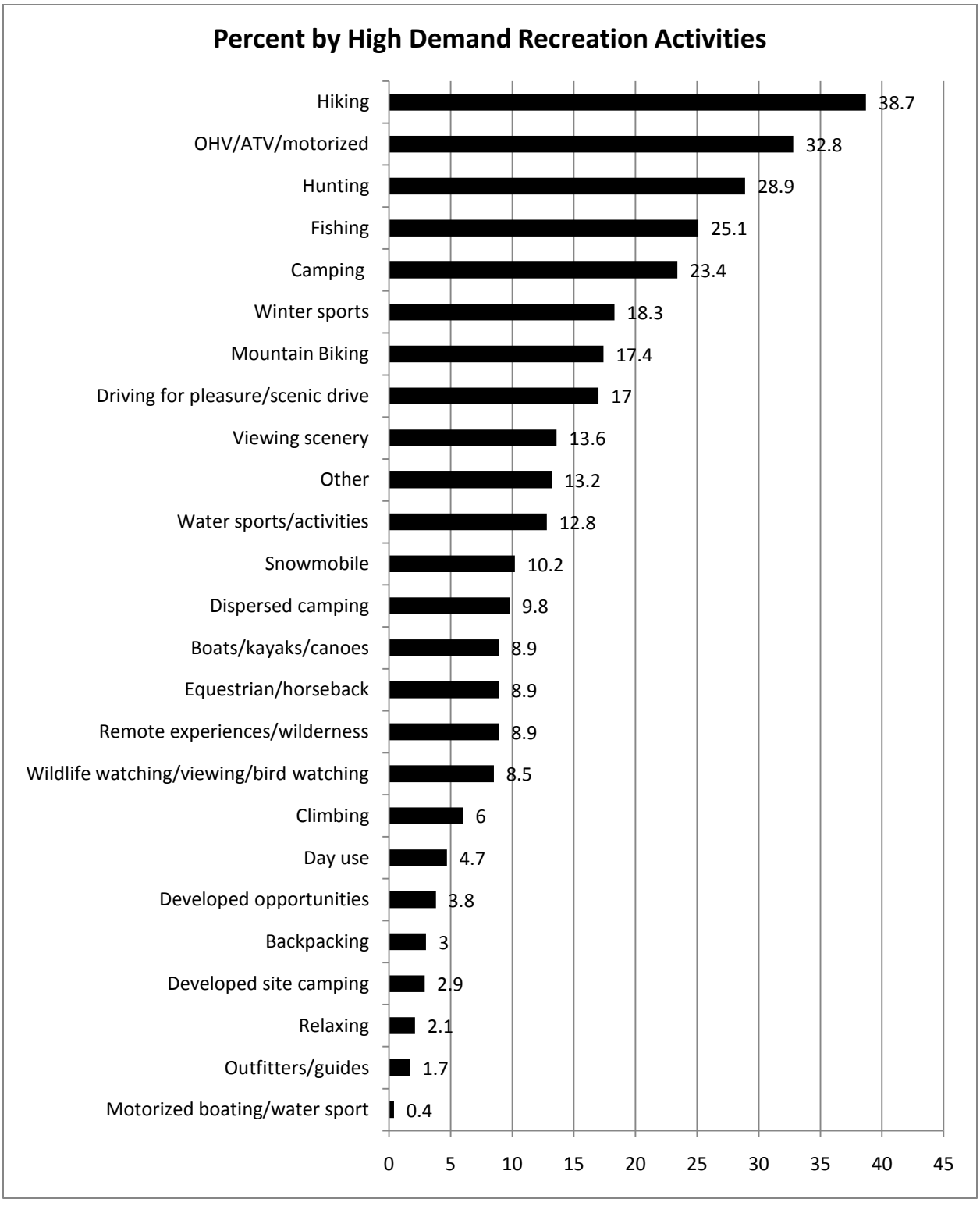


Figure 32. What recreation activities are in high demand on your forest?

**Does the forest use ROS for other things besides forest or project level planning?**

Use of ROS for other things besides forest or project level planning was only reported by about one-tenth, while more than one-third were unsure (figure 33; appendix A, question 30). Respondents then offered a few comments about what these alternate uses were. These included: for long term planning (1 mention), special use permit requests (2 mentions), carrying capacity analysis (4 mentions), facility construction (3 mentions), as a management tool (1 mention), to monitor outfitter/guide activities (3 mentions), setting design parameters for development sites (1 mention), in public information work (3 mentions), decisions on signs (1 mention), in setting decision matrix for benefits-based management (1 mention), in travel planning (1 mention), in niche development (2 mentions), and in permit administration (2 mentions).

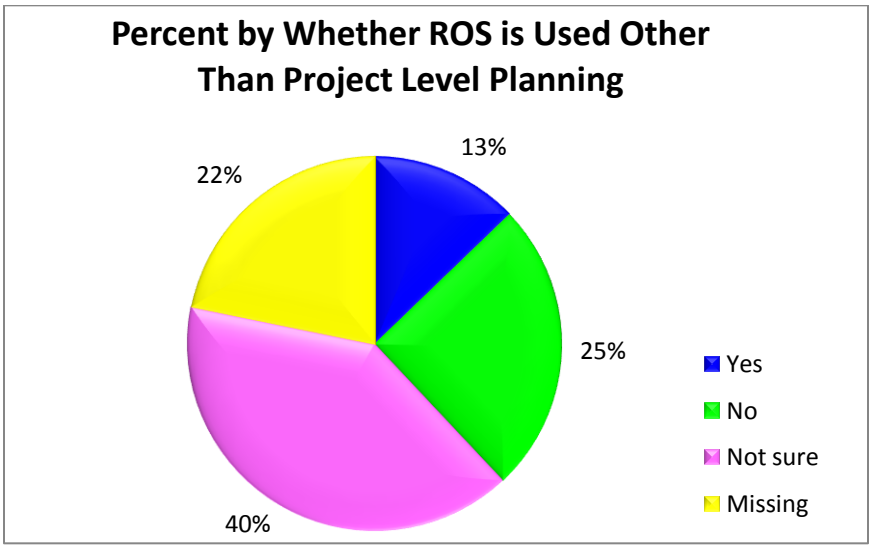


Figure 33. Does the forest use ROS for other things besides forest or project level planning?

**Is there a need to change or add to the ROS classes?**

About one-fifth felt that there was a need to change or add to the ROS classes, while one-fourth did not (figure 34; appendix A, question 37). Some respondents felt that no changes should be made, and some suggested that the current ROS works well (see appendix B, question 37). Some suggested that changes would add to the difficulty in planning, or would lead to necessary revisions of plans already in place. Others felt that the ROS should not include more classes, but should be simplified instead. Among the suggested changes offered, one theme emerged surrounding refinement of ROS classes, adding more classes, integrating local variations in ROS classes, and increasing flexibility. A specific focus on roaded natural and roaded modified emerged, suggesting that some would like to see a break down within the roaded natural class, while another thought they should be merged. Another emerging theme was the need for ROS to be updated, and reflective on modern uses of the national forest. Along the lines of adding other uses, comments were offered suggesting that special uses, heritage resources, and visual resources be considered in ROS designation. A few suggested that

development of a trails ROS or winter ROS should occur. Setting criteria were the focus of a few comments, where some were concerned with inconsistencies in size and distance criteria.

Finally, some offered comments reflecting that public desire for use of the forest, and visitor perceptions, need to be considered in ROS. Additional comments offered mentioned that ROS was not the problem, the problem was in execution; and that if any changes were made they should be an interagency effort, not just Forest Service.

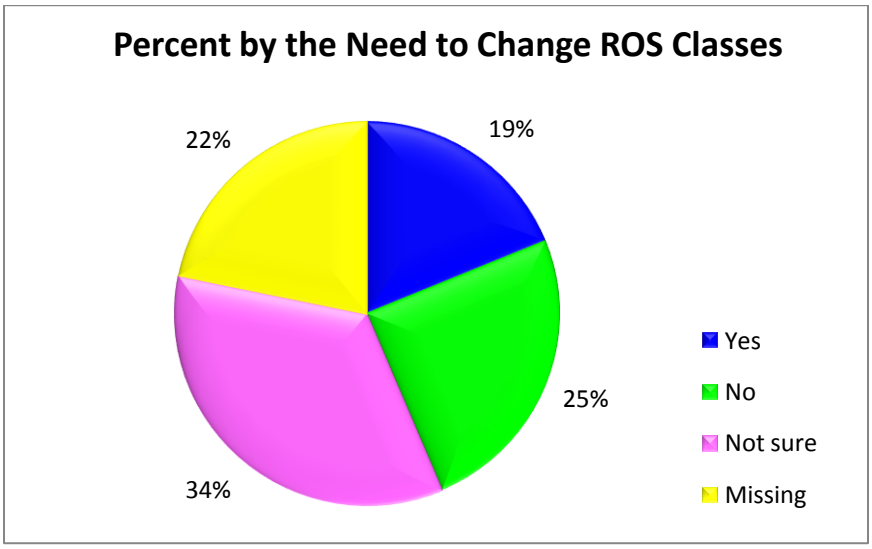


Figure 34. Is there a need to change or add to the ROS classes?

**Describe the best aspects of ROS.**

Respondents were invited to describe the best aspects of ROS. A number of aspects were mentioned, of which some are summarized here (see appendix B, question 35). Many mentioned the benefit of ROS as a tool or guideline to assist with planning, development, and basis for decisionmaking. Others suggest it was a tested device for monitoring conditions and settings, others as a tool that would aid interactions with the public. The idea that this was established and reliable was indicated by a few. Some suggested this aided in understanding expectations for places, and encourages consideration of commitments made to manage for particular opportunities. Others indicated they would prefer it be left alone, and that it not be replaced with another tool or approach.

**What change or addition to the ROS do you suggest?**

Suggested changes or additions to ROS were varied and appear in their entirety in appendix B, question 36. Common themes included the need for updates to reflect current recreational uses, improved guides and training, and clarifications on coefficients, capacity, and density. A few suggested it should not be changed, given broad adoption and understanding. Others indicated it should be replaced entirely. Confusion among public and forest personnel was mentioned.

**Are there internal or external pressures that prevent you from using ROS?**

Although various mentions in the items reported previously point to various pressures or constraints that affect ROS use and application, respondents were invited to address the issue separately. However, most indicated there were not internal or external pressures that prevented us (figure 35; appendix A, question 41). Their responses varied widely and echoed many of the concerns imbedded in other items. The perception that ROS is not valued and therefore possibly discounted was mentioned. A lack of understanding ROS seemed to be affecting acceptance and proper use. Competing job duties and priorities that were higher than ROS were mentioned. A lack of resources and staff was offered as an additional barrier. Some believed that ROS could be viewed as constraining management discretion, and was therefore discounted. Full remarks are included in appendix B, question 41.

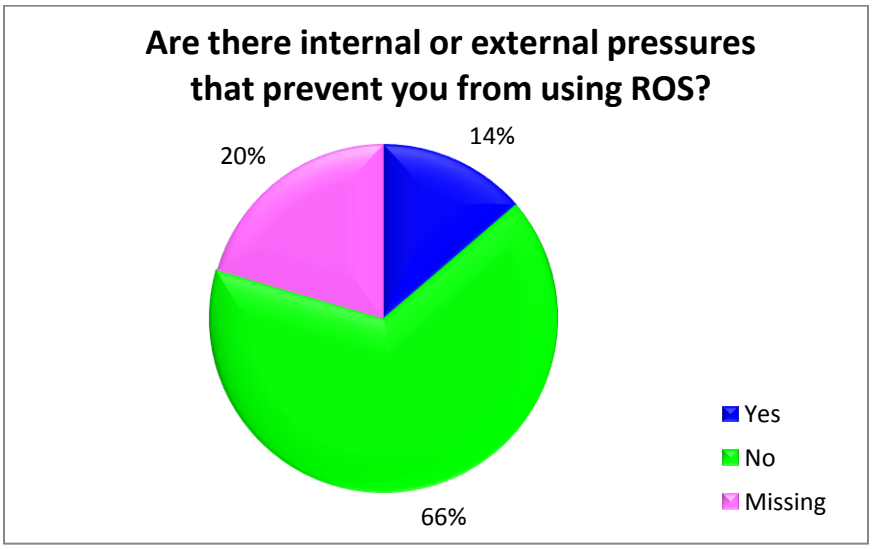


Figure 35. Are there internal or external pressures that prevent you from using ROS?

# Conclusions

## ROS Comfort Level and Training Needs

The majority of respondents has a moderate level of understanding of the ROS framework, and reported self-study as the dominant type of training. Approximately half of the respondents are aware of the Wilderness, Water, and Wild and Scenic River ROS tools. Only 12 percent of those surveyed believe that training is available. Respondents were queried to determine if staffs on their forests have the necessary skills and tools to develop the ROS inventory. Respondents were almost evenly divided among those who reported that staffs have the skills and tools and those who lack them. The rest were unsure. Open-ended comments addressed a need for training. These comments indicated a need for specific ROS training for recreation specialists, line officers, other resource specialists, and engineers. The preferred training methods included a published guidebook, self-paced Web-based training modules, and onsite training with an instructor.

## Relevance of ROS to Daily Job Routine

Those that use ROS to perform their jobs use it monthly, annually, on a project dependent basis, or for forest planning purposes. Most respondents felt that ROS has a low applicability in their jobs. About one-quarter felt that ROS is moderately applicable, and one-tenth rated the use of ROS to be very applicable in their positions.

## Use of ROS in Program of Work Development

ROS is not formally used to develop components of the forest program of work. However some feel that it has an indirect impact to the forests' program of work.

## Use of ROS in NEPA/Planning

**Forest Planning**

The majority was unsure if the ROS GIS protocol was used to develop the forestwide inventory. There were mixed opinions on how useful the GIS protocol is, ranging from very helpful to minimally helpful.

The majority of respondents reported that their forest analyzed the compatibility of various recreation activities with the biophysical resources, while about a fifth reported it did not, and roughly a third were not sure.

Regarding monitoring recreation settings and/or ROS classes, about a fifth each reported forest staff are or are not monitoring settings, with a little over a third unsure. When asked

whether monitoring information for recreation settings is included in the annual monitoring report only a tenth reported that it is, while one-third were unsure.

Respondents suggested that forests typically research recreation-oriented demands and trends during forest planning, however this is rare and even rarer still outside of that planning process. A few units conduct this research for very specific projects. Some units use data from the national visitor use monitoring surveys and State comprehensive outdoor recreation plans as the primary information source at the forest planning level. Additional resources mentioned during project level recreation demands and trends analysis include public collaboration, reviewing data on commercial outfitter-guide services, and Forest Service research papers from various research stations. Some respondents were unaware of the recreation demands and trends component of ROS.

**Project Level Planning**

In cases when forest plans specified direction for management of recreation resources for specific ROS classes, ROS is characterized as being used frequently. When forest plan direction for recreation resources is lacking, ROS seemed to be seldom used. ROS also is used infrequently in cases where there is a lack of line officer support to use ROS. Comments suggested lack of support may be owing to line officers not understanding ROS. Use of ROS also seemed decreased when resource specialists driving a project viewed ROS as prohibitive in meeting the project objectives for their resources. Some respondents reported use of ROS to analyze recreation oriented projects, but didn't use it to disclose effects to ROS from other types of projects, such as fuels reduction. Some respondents indicated that their forests only use ROS as an inventory tool during forest planning.

Respondents reported that about half of the time NEPA analysis components for existing ROS are described in the affected environment sections. Otherwise ROS seldom is discussed or not discussed at all.

Among respondents, answers suggested that ROS is viewed only as an issue to describe potential effects when the semi-primitive non-motorized ROS class is in a project area. Projects with a travel management component include effects to ROS and its components more frequently than other types of projects. Disclosing potential impacts to recreation settings, and/or ROS classes is done routinely when a forest plan had specific direction to meet ROS.

Projects are initiated periodically based on a need to change forest characteristics to meet desired recreation settings/ROS classes. These types of projects usually include developed recreation site rehabilitation, wilderness enhancement, and trail development and enhancement. One forest initiated a project to decommission a road to meet the desired recreation setting. Many respondents reported limited opportunities to initiate these types of projects due to low recreation budgets and lack of recreation staff.

**National Forest Management Act Planning**

Responses indicated that some forests use ROS to plan a variety of project types including: recreation capacity, guiding recreation site design, early forest plan consistency checking, travel management planning, niche development, landscape assessments, and special use permit administration. A few noted that ROS is helpful to determine the appropriate level of development and types of recreation facilities. Some feel that ROS has a close tie to the Built Environment Image Guide. Concerns were noted that engineers may not have appropriate training to understand and use ROS for recreation facility design.

### Best Aspects of ROS

Respondents were asked to describe what they felt the best aspects of ROS are. Several felt that the public and land managers can understand ROS. Several mentioned that ROS is a recreation management tool used by several agencies and internationally. Others suggested that ROS is a widely accepted tool to manage an array of recreation opportunities and settings. In addition, the following themes emerged from responses: When forest plans have direction for managing ROS classes and an ROS inventory has been conducted, there is a basis from which project level effects to recreation settings and opportunities can be determined. Management direction for ROS classes provides an image for land managers and the public of what types of recreation opportunities and settings to expect. The ROS describes the range of opportunities and provides the ability to distinguish which management activities are or are not appropriate within the range. Other aspects of ROS were considered to be very good.

### Recommended Changes or Additions to ROS

There was a myriad of recommendations made; this is a summary of suggestions made by several respondents. The main theme was to ensure that there is forest plan direction to manage ROS classes/recreation settings. This is actually a change to how forest planning would be conducted rather than changing ROS.

Another theme was the need to update ROS to include modern recreation activities, and determine their appropriate ROS classes. Some recommendations were made to tie ROS concepts to recreation sustainability concepts. Comments indicate that there needs to be more discussion on winter and seasonal ROS. Several would like a clear description on the appropriate use and scope of ROS.

Others would like to see a streamlined ROS inventory process. In order to improve NEPA analysis, some requested examples or a library of recreation analysis. A theme emerged regarding the need to include place-based planning and public collaboration to understand the local public values and desired recreation activities.

Several discussed the need to be flexible regarding size and scale in development of ROS classes. This is a situation staffs on eastern forests struggle with. Most of these forests may have all of the attributes of a certain ROS class with the exception of the size criteria. Many feel that a

strong connection to the scenery management system should be made when describing the ROS classes. Some suggested addressing the challenge that urban forests have when they try to maintain less developed areas that are within close proximity to roads.

One suggestion was to improve consistency of use with a menu of ROS-based criteria and indicators. Several noted that a variety of settings occur in official wilderness areas. Therefore, there were recommendations made to develop additional ROS classes of pristine and high-use primitive or high-use backcountry.

Others recommended that the roaded modified sub-classification be officially adopted. Some mentioned that ROS is no longer a platform to make the motorized versus non-motorized decisions, that is being conducted through the travel management planning efforts. Instead, ROS inventories would not consider motorized or non-motorized, but would focus on the state of the setting. This could be described as semi-primitive natural, semi-primitive modified, etc. This suggestion also overlaps with another theme of apparent conflicts between ROS and other resource management objectives. For example, when an objective requires road building or other changes to setting attributes that are inconsistent with the ROS classes

### Mixed Opinions on the Application of ROS

There were mixed opinions on whether or not ROS is applied consistently across the Forest Service. Some feel that the public really understands ROS, while others think that the public doesn't. Some respondents like the flexibility of ROS; however others want to make it a more rigid process to increase the consistency of its use.

### Internal and External Pressures that Prevent the Use of ROS

The majority of respondents did not feel there were any pressures preventing the use of ROS. Those that did feel there were pressures preventing use of ROS described the following common challenges: ROS restricts management activities that need to take place to manage other resources; the ROS process would be more widely embraced if it considered the multiple uses that need to occur on the forest; ROS is not useful unless specific forest plan direction is in place; and ROS and recreation settings are viewed as low-risk resources by managers since there are not many appeals or lawsuits. In these situations, ROS and/or recreation settings do not get analyzed in project-level planning. There also are administrative hurdles to implementing ROS including lack of funding, lack of trained staff, and competing priorities.

# IMPLICATIONS

Survey responses suggest that the Forest Service and the public are not getting the full benefit of ROS. Although there were indications by several respondents that ROS is a viable and valuable tool, there were others who did not see that value. Some expressed confusion about when to use ROS, what it is used for, and who should use it. These sources of confusion can result in inconsistency in application and use.

Forest staffs are directed to use ROS in FSM 2311.1.

> Use the Recreation Opportunity Spectrum (ROS) system and the ROS Users Guide … to delineate, define, and integrate outdoor recreation opportunities in land and resource management planning (FSM 1922.15, item 2) [Land Management Planning 1926.11]. Recreation integration/coordination provides for integrated management prescriptions and associated standards to deal with the recreation resource.

The survey responses show that forest staffs may not be fulfilling these directives completely. The forest plan is a contract that prescribes, through ROS, the management of settings and resources. Not everyone viewed ROS as prescriptive, however, and perceptions vary on the roles and requirements imbedded within ROS.

ROS was designed to provide a common point of reference to reach a shared vision on recreation settings. A forest's ROS is developed with collaboration between internal staffs and external interests, and is essentially an agreement that land will be managed is a certain way to safeguard resource settings. Some comments reflected an understanding of this role of ROS within management of public lands, while others did not. All of this can result in a less than ideal attention to desired conditions, both in analysis and in monitoring. Effects on short and long-term impacts are not fully known, however it is expected that such shortcomings may result in changes to recreation settings that lead to undesired effects. In addition, if viewed as a form of shared agreement between publics and land managers for how areas will be managed, public trust may be at risk if not adhered to or followed.

Not using ROS appropriately creates potential impacts to recreation settings, and thus affects opportunities. When desired conditions are not analyzed or monitored, deviations in settings can occur that are detrimental. In essence, forest staffs take the risk of assuming various levels of impacts and changes to the recreation settings that may or may not be reflective of the desired conditions for that classification, and that the public is expecting. This could lead to a change in the level of public trust.

Responses suggest that training is needed not only to improve understanding of ROS but also to ensure proper implementation.

# Recommendations

Forest Service training has not been offered for some time, and one, if not more, generations of employees has been hired since the last training. Employees are asked to apply and rely upon a tool that is not well understood. Requirements for its use cannot be fully satisfied without providing the necessary capacity building and skill sets. Offer training, in a variety of media, to multiple disciplines and line officers.

Improve consistency of the application of ROS by consolidating the various components of ROS in one Forest Service handbook. Update the ROS guidebooks to an official Forest Service Handbook to improve the level of use of ROS. Describe processes to develop seasonal ROS classes so that it can be applied consistently. Update guide to include modern and future recreation activities. Provide recent examples of desired future condition statements, and other forest plan direction components related to ROS for forest planning. Ensure ROS forest planning guidance is consistent with the new Forest Planning Rule, and not contradictory. Develop examples of forest monitoring plan elements for recreation settings. Develop a new ROS poster to assist the field in application of ROS. Develop a project planning level checklist to be used to determine if proposed project activities may affect various components of recreation settings.

Add examples of forest planning and project level planning analysis related to ROS on the RecLink community of practice library (planned for release in FY2011).

Integrate the application of ROS with the framework for sustainable recreation.