Attachments: Wells_Reservoir_Recreational_Needs_Aanalysis[2].DOC

From: Scott Kreiter
Sent: Wednesday, July 11, 2007 11:15 AM
To: jime@iac.wa.gov; 'Lee Webster'; 'Susan_Rosebrough@nps.gov'
Subject: Wells Reservoir Rec Needs Analysis

Susan, Lee, and Jim,

Please find attached the reviesed Rec Needs Analysis for the Wells Project. I hope these edits address your concerns regarding Hispanic use of the reservoir. Please feel free to provide any feedback you may have. This was your issue, so i want to be sure that you are comfortable with the changes before sending out to the rest of the work group. All of the changes are highlighted in yellow.

You will also see that we added some additional detail to the methods section on estimating future recreation use. This was in response to a suggestion by FERC that we be sure that everyone in the RWG has an understanding of the protocol we plan to use. Jim and Susan - you are the experts on this, so your feedback on this added methodology would be helpful.

Thanks much for your input.
-Scott

AN EVALUATION OF RECREATIONAL NEEDS WITHIN THE WELLS PROJECT
(Recreational Needs Analysis)

WELLS HYDROELECTRIC PROJECT

FERC NO. 2149

September 2007

Comment [SDK1]: Date to be filed with Revised Study Plan

Prepared by:
Public Utility District No. 1 of Douglas County
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ABSTRACT:

The current Wells Hydroelectric Project (Wells Project) license will expire on May 31, 2012. The Public Utility District No. 1 of Douglas County (Douglas PUD) owns and operates the Wells Project and is using the Integrated Licensing Process (ILP) for relicensing as promulgated by Federal Energy Regulatory Commission (FERC) regulations issued July 23, 2003 (18 CFR Part 5).

The Recreation and Land Use Resource Work Group (RWG), which is composed of stakeholders (resource agencies and tribes) and Douglas PUD staff, was formed for the purpose of identifying issues and information gaps that may require study during the relicensing of the Wells Project. The Recreation RWG, through a series of technical meetings, is proposing an analysis of future recreation needs associated with operation of the Wells Project.

The purpose of the Recreation Needs Analysis is to evaluate recreational use information and identify current and future recreation needs within the Wells Project boundary. The needs analysis will identify recreation needs within the Project that recreation resource managers should strive to address during the term of the new license.

The needs analysis will evaluate existing recreation use data, assess the current condition of existing facilities, and identify potential enhancements to meet current and future recreation needs. The results of this study will be used to help Douglas PUD identify existing and future recreation needs so that protection, mitigation, and enhancement measures can be developed for the new license term.

1.0 INTRODUCTION

1.1 General Description of the Wells Hydroelectric Project

The Wells Hydroelectric Project (Wells Project) is located at river mile (RM) 515.8 on the Columbia River in the State of Washington. Wells Dam is located approximately 30 river miles downstream from the Chief Joseph Hydroelectric Project, owned and operated by the United States Army Corps of Engineers (COE), and 42 miles upstream from the Rocky Reach Hydroelectric Project owned and operated by Public Utility District No. 1 of Chelan County (Chelan PUD). The nearest town is Pateros, Washington, which is located approximately 8 miles upstream from the Wells Dam.

The Wells Project is the chief generating resource for Public Utility District No. 1 of Douglas County (Douglas PUD). It includes ten generating units with a nameplate rating of 774,300 kW and a peaking capacity of approximately 840,000 kW. The design of the Wells Project is unique in that the generating units, spillways, switchyard, and fish passage facilities were combined into a single structure referred to as the hydrocombine. Fish passage facilities reside on both sides of the hydrocombine, which is 1,130 feet long, 168 feet wide, with a crest elevation of 795 feet in height.

The Wells Reservoir is approximately 30 miles long. The Methow and Okanogan rivers are tributaries of the Columbia River within the Wells Reservoir. The Wells Project boundary extends approximately 1.5 miles up the Methow River and approximately 15.5 miles up the Okanogan River. The normal maximum surface area of the reservoir is 9,740 acres with a gross storage capacity of 331,200 acre-feet and usable storage of 97,985 acre feet at elevation of 781. The normal maximum water surface elevation of the reservoir is 781 feet.

1.2 Relicensing Process

The current Wells Project license will expire on May 31, 2012. Douglas PUD is using the Integrated Licensing Process (ILP) as promulgated by FERC regulations issued July 23, 2003 (18 CFR Part 5). Various state and federal agencies, tribes, local governments, non-governmental organizations and the general public will participate in the Wells Project ILP. During the ILP, information needs related to the relicensing of the Wells Project will be identified. All study plans intended to meet these information needs will be prepared in a manner that addresses each of the required FERC criteria described in 18 CFR § 5.9(b).

18 CFR § 5.9(b) Content of study request. Any information or study request must:

(1) Describe the goals and objectives of each study and the information to be obtained;
(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;
(3) If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study;
(4) Describe existing information concerning the subject of the study proposal, and the need for additional information;

(5) Explain any nexus between project operation and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements;
(6) Explain how any proposed study methodology is consistent with generally accepted practices in the scientific community or, as appropriate, considers relevant tribal values and knowledge. This includes any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration;
(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

All study plans submitted to FERC will be reviewed by Douglas PUD and the applicable Resource Work Group(s) to determine if studies proposed will fill the information needs related to the Wells Project Relicensing. Any dispute over alternative study methods, that cannot be reconciled with stakeholders, will be decided by FERC.

2.0 GOALS AND OBJECTIVES

The goal of this study is to research, describe, and quantify recreation and access needs in the Wells Project that should be addressed over the term of the next 50-year FERC license. Specific objectives include:

- Summarize study findings to evaluate recreational use and demand within the Wells Project. This summary will be based on results of the 2005 Wells Project Recreation Visitor Use Assessment and existing information from FERC Form 80s for the Wells Project, Interagency Committee for Outdoor Recreation outdoor recreation participation survey, WDFW fisherman surveys, WDFW hunter surveys, City of Bridgeport's Marina Park information and other relevant recreational survey information.
- Assess the needs of Hispanic use of recreational facilities and resource areas.
- Assess the adequacy of existing Wells Project recreation facilities to accommodate current and future recreation demand.
- Assess the adequacy of public access and safety at Wells Project recreation facilities.
- Assess the adequacy of operations and maintenance at Wells Project recreation facilities.
- Develop a prioritized list of potential actions to address Wells Project recreation issues. The list should include criteria such as demand, effectiveness, feasibility and cost.

The needs analysis should provide information to Douglas PUD, as well as recreation resource managers, for making decisions regarding recreation planning in the Wells Project.

3.0 STUDY AREA

The study area includes recreation and access facilities within and adjacent to the Wells Project boundary. The Wells Project boundary extends from the tailrace of Wells Dam (River Mile [RM] 514.7) upstream to the tailrace of Chief Joseph Dam (RM 544.5). The boundary also extends to RM 15.5 on the Okanogan River and RM 1.5 on the Methow River. Recreation and access facilities within the Project boundary include parks, boat launches, trails, parking areas, fishing access sites, and wildlife lands access sites (Figure 3.0-1).

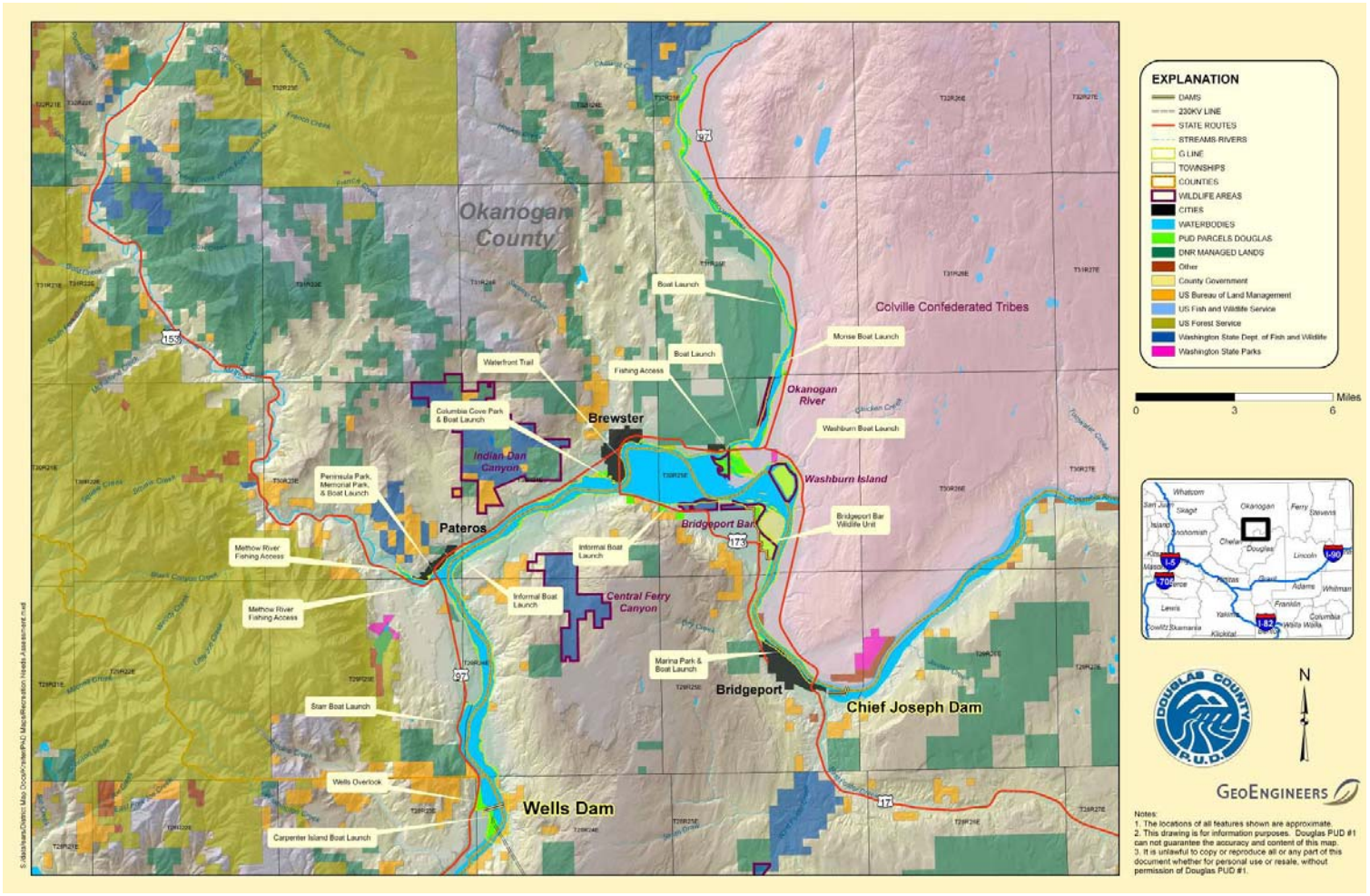

Figure 3.0-1 Location Map of the Wells Project

4.0 BACKGROUND AND EXISTING INFORMATION

4.1 Recreation and Land Use Resource Work Group

As part of the Wells Project relicensing, Douglas PUD established a Recreation and Land Use Resource Work Group (RWG) which began meeting in November, 2005. This voluntary effort was initiated to provide stakeholders with information about the Wells Project, to identify potential resource issues and to develop preliminary study plans to be included into the Wells Pre-Application Document (PAD).

Through a series of meetings, the RWG identified a set of resource issues that, in their judgment, matched with FERC's ILP study request criteria. The RWG then reviewed the existing project information and determined that several of these issues require additional information.

Based upon these discussions, the RWG is proposing to conduct two studies. These two studies will help to inform future relicensing decisions and will fill data gaps identified by the RWG. The two studies proposed by the RWG include: 1) An Evaluation of Access to the Wells Reservoir as it Relates to Reservoir Fluctuations, Aquatic Plants and Sedimentation and 2) An Evaluation of Recreation Needs within the Wells Project. The proposed Recreation Needs Assessment will focus on collecting information pertinent to Recreation Issues, PAD Section 6.2.2.4, 6.2.2.5, 6.2.2.6 and 6.2.2.7 identified by the RWG.

4.2 Issue Statements

Issue Statement (PAD Section 6.2.2.4)

Recreation proposals under the license need to consider Endangered Species Act (ESA), Americans with Disabilities Act (ADA), Electric Consumers' Protection Act (ECPA), State Comprehensive Outdoor Recreation Plan (SCORP), County Shoreline Master Programs as well as local ordinances, laws, regulations and comprehensive plans.

Issue Determination Statement (PAD Section 6.2.2.4)

Douglas PUD agrees that proposals under the new license need to consider all of the above-mentioned laws, plans and regulations. These should be applied at existing and future recreation sites. The resource work group agrees that additional information is needed and a study is recommended during the two-year ILP study period. An evaluation of ADA compliance and other regulations will be considered in the Recreation Needs Assessment.

Issue Statement (PAD Section 6.2.2.5)

Existing recreation facilities may not meet future recreation needs through the duration of the next license term. Recreation plans under the new license should consider recreation trends and an analysis of the condition and capacity at recreation facilities.

Issue Determination Statement (PAD Section 6.2.2.5)

Douglas PUD completed a Recreation Visitor Use Assessment for the Wells Project conducted in 2005. This assessment will be useful in answering questions related to the current use of existing recreation facilities.

The existing Wells Project recreation sites were developed under the original license to provide safe and efficient access to Project lands and waters. Safe and efficient access to Project land and waters is a requirement of the original FERC license and is expected to be a requirement under the new long-term FERC license. Enhancements to existing facilities or the installation of new sites/facilities will be considered based upon projected use and capacity ratings, consistent with FERC recreation policies.

The current condition of existing recreation facilities and their ability to meet future needs is unknown. The resource work group agrees that additional information is needed and that a Recreational Needs Assessment should be conducted during the two-year ILP study period. This study should assess the condition of existing facilities and evaluate the ability of existing facilities to meet future recreation demands within the Wells Project. The Recreation Needs Assessment should also consider results from the Interagency Committee for Outdoor Recreation's (IAC) statewide outdoor recreation participation survey and the WDFW fishermen survey and additional recreation information from the Project area.

Issue Statement (PAD Section 6.2.2.6)

The new license should consider new facilities or enhancements to existing facilities (e.g. Chief Joe Hatchery, Fort Okanogan State Park and Interpretive Center, Fort Okanogan Overlook Site, Wells Visitor Center, Pateros Visitor Center, Alta Lake State Park and Wells Tracts off Pit Road) and should consider trails and trail linkages between communities.

Issue Determination Statement (PAD Section 6.2.2.6)

The resource work group agrees that a Recreational Needs Assessment is considered necessary during the two-year ILP study period. The results of this study will help identify potential enhancements to meet current, future and potential recreation needs within the Project, including the possibility of trails and trail linkages between communities. The study will help to determine whether adequate demand exists to justify the construction of new recreation facilities and will consider existing and future plans for recreation sites in the Project vicinity. Enhancements to existing facilities outside the Project will be considered if recreation needs cannot be met within the Project boundary.

Issue Statement (PAD Section 6.2.2.7)

Wells Dam may be a hindrance to river travel.

Issue Determination Statement (PAD Section 6.2.2.7)

Douglas PUD is not aware of an ongoing need for human river travel past Wells Dam. Wells Dam operators have identified only three instances where the public has requested portage either upstream or downstream of the dam in the past five years. In each instance, Douglas PUD has been able to adequately accommodate these individuals and transport their equipment. This issue may have a tie to the Project if a significant need is identified in the future.

The resource work group agrees that a study is not needed during the two-year ILP study period. An evaluation of portage options to address this issue should be considered in the Recreation Needs Assessment.

4.3 Recreation Visitor Use Assessment (2005)

Douglas PUD completed a Recreation Visitor Use Assessment during May to December of 2005 in an effort to collect information related to visitor use at Wells Project recreation sites (DTA, 2006). The primary goals of this study were to assist in the preparation of the PAD and to describe use levels, preferences, attitudes and characteristics of the Wells Project's primary recreation user groups. Specific objectives included:

- Describing recreation respondents' characteristics;
- Describing user preferences for recreation settings and facilities;
- Identifying possible recreation conflicts, crowding, or personal safety issues;
- Describing users' attitudes toward management actions;
- Describing recreation respondents' activities; and
- Identifying the amount, activity type and spatial and temporal distribution of existing recreation use.

A stratified systematic sampling strategy was chosen for the Recreation Visitor Use Assessment. To ensure that diversity in types of recreation users and variation in type of days visited, sampling was conducted at designated recreation sites and on the Wells Reservoir from May 24, 2005 through December 13, 2005, months that together account for the majority of use.

4.4 Recreation Action Plan

Ongoing recreation needs within the Wells Project are addressed through the Wells Recreation Action Planning process. The Wells Recreation Plan (1967), Wells Recreation Plan Supplement (1974), Public Use Plan (1982) and Recreation Action Plans (1987, 1992, 1997 and 2002) were established as part of compliance with Article 44 of the original FERC license. This long-term and ongoing planning and implementation process has helped in the development and maintenance of the sites previously described.

Following a two-foot pool raise amendment in 1982, Douglas PUD developed a Public Use Plan for the Wells Project. The plan analyzed the types of public recreation facilities that the Wells Reservoir can reasonably accommodate and discussed how those facilities can be developed and maintained. The information presented in the 1982 Public Use Plan included an analysis of recreation facilities within a 100-mile radius of the Wells Project.

In response to the 1982 Public Use Plan, the National Park Service (NPS) and State Parks recommended periodic updates (every five years) to the 1982 Public Use Plan. By FERC Order dated August 12, 1987, 40 FERC 62,157, this recommendation was made part of the Wells Project license resulting in updates to the 1982 Public Use Plan every five years. Douglas PUD's 1987 Recreation Action Plan, which is a supplement to the 1982 Public Use Plan, was supported by the NPS, Washington State Parks and Recreation Commission and the cities of Pateros, Brewster and Bridgeport. Douglas PUD has also published subsequent updates to the 1982 Public Use Plan in 1992, 1997 and 2002. The next update is scheduled to be completed in 2007.

4.5 FERC Form 80

The FERC Form 80, "Licensed Hydropower Development Recreation Report" is a brief summary of the existing recreation conditions and facilities associated with the Wells Project. Based on FERC regulations, the forms were submitted every two years from 1967 – 1984, every four years from 1984 – 1996 and every six years since 1996. The most recent Form 80 was submitted to FERC in 2002.

FERC's Form No. 80 is used to gather information necessary for the Commission and other agencies to know what recreational facilities are located at licensed projects, whether public recreational needs are being accommodated by the facilities, and where additional efforts could be made to meet future needs.

5.0 PROJECT NEXUS

The Wells Project has direct and indirect effects on recreation activities within the Project boundary. The effects include providing public access to Project lands and waters, and the potential effects of Wells Project operations on recreational activities.

Douglas PUD has developed and provides major maintenance at numerous public recreation facilities along the Wells Reservoir. These facilities were developed to provide safe and reasonable access to Project lands and waters. Access to the Project will continue to be needed under the new license and this proposed study will help to determine whether additional facilities are needed to meet the demand in recreational use. In addition, Project recreation facilities may not currently be ADA compliant which could limit access for public use. It is unknown whether the existing facilities, in their current condition, can continue to adequately fulfill the expected level of recreation demand during the next license term.

The results of this study will be used to help identify existing and future recreation needs and will be useful during the development of protection, mitigation, and enhancement measures for the new long-term FERC license to operate Wells Dam.

6.0 METHODOLOGY

Assess Existing Unmet Demand

Existing recreation use does not always represent the total existing recreation demand because there may be constraints that limit participation. While there are many potential constraints on recreation use (e.g., lack of free time, cost, geographic distance, lack of skills or equipment), a subset of participation constraints may be closely associated with site-specific management (e.g., limited access to lands or water, use limits or full occupancies at facilities, Project operations that diminish the quality of opportunities, or the lack of information about available recreation opportunities). To assess the general level of unmet demand for Project recreation resources, Douglas PUD will perform the steps described below:

Step 1: Assess statewide and regional unmet recreation demand information

Review and summarize relevant information from the 2002-2007 SCORP and other relevant local recreation data. In addition, a review of the SCORP Local Government Survey results, Interagency Committee for Outdoor Recreation's (IAC) statewide outdoor recreation participation survey, which include regionalized recreation issues and needs from local agencies involved in outdoor recreation management, will be reviewed.

If available, other sources of Project area and region information will be reviewed. The focus of this assessment will be to identify possible recreation activities with substantial unmet demand with a qualitative discussion of participation constraints and whether these constraints are likely affected by Project operations.

Step 2: Collect unmet Project Area recreation demand information from visitor surveys, Hispanic community leaders, and current research

Douglas PUD will utilize additional unmet demand information from the Recreation Visitor Use Assessment survey, conducted in 2005. These surveys asked visitors if there are any reservoir or river recreation activities they are interested in participating in, but cannot because of some form of barrier.

To further understand the recreation needs of a growing Hispanic population in the region, Douglas PUD will conduct interviews with local Hispanic community leaders (e.g., social organizations, churches) and Fish and Game officers to understand recreation use and behavior during daytime and evening hours. Douglas will also summarize current research on the specific needs of Hispanic recreation users.

Step 3: Identify potential activities with high unmet demand within the Project area

Based on the review of unmet demand information derived from the Washington SCORP, the 2005 Recreation Use Assessment, and Project monitoring data, Interagency Committee for Outdoor Recreation's (IAC) statewide outdoor recreation participation survey, and the summary of Hispanic recreation needs, potential activities with high unmet demand at the Project will be identified. The analysis will also attempt to identify likely barriers or constraints on participation, and whether those are related to Project operations or recreation management decisions.

Assess Future Recreation Demand

This element of the study will project future recreation use at the Project over the estimated period of the new license (30 to 50 years). Obviously, projecting the future is a speculative activity, especially over a 30 to 50 year period. These projections, though, can be useful for general planning purposes to identify potential management issues that may occur in the future. This approach will include the following steps:

Step 1: Review existing recreation use trends

Past use often helps predict future use. Douglas PUD will review trends of actual Project recreation use from Project monitoring reports for Wells Reservoir, Interagency Committee for Outdoor Recreation's (IAC) statewide outdoor recreation participation survey, WDFW fishermen survey, Washington fishing license sales, ORV green stickers and boating vessel registrations for the counties where the majority of Project visitors originate from; local fishing guide activity; and recreation equipment sales.

Step 2: Review existing population and recreation activity participation projections

Douglas PUD will summarize existing information on future projections from the Washington Office of Financial Management on population growth rates for the counties where the majority of the Project visitors originate; U. S. Census statistics for growth within and adjacent to the Project and other appropriate state sources on existing and future population growth.

Step 3: Review reasonably foreseeable events that may influence future use

Reasonably foreseeable events in the watershed may be expected to influence recreation use in the watershed over the license period. If an event is determined to be reasonably foreseeable, a qualitative assessment will be made of its potential affect on future recreation use.

Step 4: Estimate future recreation use over the License Period

Based on historical trends, future growth projections, and likely foreseeable actions in the watershed, professional judgment will be used to estimate recreation use and facility utilization over the expected term of the new license (i.e. 30 to 50 years). These estimates must be considered very speculative and will only provide a general indication of how recreation use is expected to change over the license period. The following steps will be utilized to estimate recreation activity for the Okanogan, Douglas and Chelan County populations (16 years and older):

a. The calculation of participation estimates will be based on the projection indices created from Bowker et al., (1999), who utilized the National Survey on Recreation and the Environment (NSRE) descriptive findings for populations 16 years and older, not institutionalized (Cordell et al.1996) to develop participation by millions 2000-2050 on ten year increments.

b. The county projections will be presented in a range derived from national and regional participation projection estimates. These are calculated based on the indices created for the nation and region, utilizing the same rate of increase index created by Bowker et al. (1999). To obtain the county level estimated activity participation rates, the following individuals will be contacted and steps applied:

   1. By county, the indexes from national and regional participation rates will be multiplied by the base number of participants (represented in millions) then divided by the base population used in national and regional calculations (Bowker et al., 1999, pp. 323-349). This will yield a national and regional participation rate for each activity by decade.
   2. Next, the national and regional participation rates will be multiplied by the estimated Okanogan, Douglas and Chelan county populations of individuals non-institutionalized and over the age of 16, consistent with the estimate parameters developed by Bowker et al. (1999). The population estimates will come from the Washington Office of Financial Management, extracting estimates of institutionalized individuals from the Department of Corrections.
   3. This calculation will result in a range of participation by activity for Okanogan,Douglas and Chelan counties.

Regional Uniqueness and Significance Assessment

The following steps are focused on an assessment of regional uniqueness of the Project's primary recreation opportunities in three steps.

Step 1: Review results of visitor questionnaires
Douglas PUD will review the results of the recreation visitor use assessment to confirm the Project's primary recreation activities. It is anticipated that fishing, boating, hiking, picnicking and swimming will likely be among the top water-related recreation activities in the Project area.

Step 2: Identify regional recreational opportunities
Douglas PUD will identify the geographic draw of the Project's top primary recreation opportunities. This will be done by assessing the geographic extent of visitors' origins and location of the alternative recreation resource areas where visitors participate in their primary recreation activities.

Step 3: Assess uniqueness of the Project-related recreation opportunities
For the Project's most popular primary recreation activities, Douglas PUD will identify if these recreation opportunities are of local, regional or state significance. In addition, text will describe what is unique and special about the most popular recreation opportunities based on information from regional resource information.

Public Access Analysis

Access to public use areas within the Project by both land and water will be assessed. Existing access features will be rated as high, medium, or low quality. Opportunities and constraints within the Project will also be identified, including compatibility with ADA. Public access (land and water) in the Project area will be identified and assessed by:

- Reviewing ownership maps, topographic maps, and aerial photography;
- Boating to dispersed sites and use sites along the shoreline, driving roads to access sites, and walking formal and informal user trails on lands designated as Project access sites or wildlife areas;
- Defining existing water trail routes along the reservoir, current shoreline watercraft launch sites, constraints to watercraft access along the reservoir, and overnight stop-over sites, and;
- Displaying public access sites and routes within the Project on GIS maps.

The final analysis will include tables and maps summarizing locations where: 1) current facilities for access to the Project are safe and efficient; 2) access is highly constrained; 3) future improvements could be implemented. Viable options for potential new or enhanced public access will be identified for further consideration.

Needs Assessment

The needs assessment will provide a qualitative assessment, utilizing professional judgment, of the recreation needs based on integrating the findings from the other recreation components of this study and other related studies. The assessment will involve a four-step process in which relevant Project recreation opportunities are described, relevant Project recreation issues are identified, potential actions to address Project-related issues identified, and PME measures are proposed, if appropriate. These steps are discussed below.

Step 1: Summarize Project-related recreation opportunities at recreation resource areas

The first step in the needs assessment is to integrate recreation study findings into a summary of Project-related recreation opportunities at recreation resource areas. The existing condition of the recreation opportunity as well as the likely condition of the opportunity over the license term will be described. Parameters likely discussed include such items as activity participation rates, satisfaction levels, facility needs, regional significance, resource impacts, and existing and likely future capacity availability.

Step 2: Summarize major recreation issues for each recreation resource area

Based on the projected license term and the conditions of recreation opportunities within recreation resource areas, the recreation issues within the recreation resource area will be confirmed. This may include such items such as crowding, conflicts between user groups, likely facility needs over the license term, or various types of impacts resulting from recreation use. Recreation needs issues will be assessed by comparing recreation supply and demand study results.

Step 3: Develop a list of actions to address Project-related issues

A list of prioritized actions that address Project-related recreation issues will be developed for consideration. In some cases, several alternative actions are likely to be developed to address the same issue. Effectiveness, feasibility and costs will be used to identify actions and to prioritize these actions.

Step 4: Identify appropriate additional recreation measures for the Project

The last step of the process is to consult with relicensing participants to review study results and to identify Project mitigation and enhancement measures to be included with the new FERC license.

Assessing existing recreation use through a combination of observation and questionnaire surveys is a common practice for large geographic areas that contain multiple accesses to desired recreation use areas (Malvestuto 1996, Pollock et. al. 1994). In addition, assessing future recreation demand through an evaluation of existing use, demographic data and participation trends and projections in the region is common practice (Kelly & Warnick, 1999).

Integrating study results, comparing supply and demand study findings, and identifying resource impacts is standard practice on many relicensing processes. The proposed methods are also consistent with assessing needs approaches utilizing visitor frameworks such as the Visitor Impact Management (Graefe, Kuss, & Vaske, 1990) and Limits of Acceptable Change processes. In addition, the proposed methods incorporate concepts from the Recreation Opportunity Spectrum (ROS) (Clark and Stankey, 1979), and subsequent Water Recreation Opportunity Spectrum (WROS) frameworks (Haas, Aukerman, Lovejoy, & Welch, 2004).

7.0 STAFFING AND EQUIPMENT REQUIREMENTS

No special equipment is needed to conduct this study. Staff time required to complete this study is estimated to be approximately 612 person hours.

The consultants hired to conduct this study must have prior experience in conducting Recreation Needs Assessments and should be well versed in recreation issues and planning.

Several trips to the Project area will be required.

8.0 BUDGET

The total estimated hours for conducting the Evaluation of Recreational Needs within the Wells Project (needs assessment) study is approximately 612 person hours with a total estimated cost of $83,000. The needs assessment includes two phases. The first phase is estimated to require 412 person hours, which includes travel, site visits and data collection. The estimated cost of this phase is $53,000. The second phase of the needs assessment is estimated to require 200 person hours. The estimated cost of this phase is $30,000, which includes data analysis and reporting, a data summary visit, and one presentation visit.

9.0 SCHEDULE

The proposed study plan will take into account data collected during 2005 and 2006 during baseline studies.

Planning for the recreation needs analysis will begin in late 2007, shortly after the issuance of FERC's Study Plan Determination in October 2007. Field efforts will take place during the spring and summer of 2008 with an Initial Study Report due to stakeholders by October 2008. An initial study report will be filed with FERC in October 2008.

Data analysis and a draft report for the study will be completed by January 2008. A final report will be provided to FERC and the stakeholders by October 2009.

10.0 REFERENCES

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