John Day River Study
Environmental Assessment

EA Number: DOI-BLM-OR-P040-2008-0159-EA
August 27, 2010
Prineville District Bureau of Land Management
Prineville, Oregon

Table of Contents

Chapter 1 – Introduction **5**

Need for action 7
Purpose of action (objectives) 10
Relevant policies and plans 10
Scoping and Issues 11
Issues considered but not analyzed 13
Issues outside the scope of analysis 13
System for allocating permits to non-commercial and commercial boaters 13
Boater fees 14
Grazing effects on boating 15
Campsite cleanliness 15
Campsite tree damage and loss 15

Chapter 2 – Proposed Action and Alternatives **17**

Proposed Action 17
Alternative 1: Boater Capacities Not Prescribed (No Action, Continue Existing Management) 18
Alternative 2: Boater Capacities Prescribed (Proposed Action) 19
Alternative 3: Boater Capacities Prescribed with Reserved First Night Campsites 22
Alternatives considered but not analyzed 27
Use encounters per day standards recommended by the John Day River Study 28
Develop more campsites along the river 30
Prescribe capacities for individual boaters, not boating groups 30
Include more zones in Segment 3 where boater capacity would not be prescribed 31

Chapter 3 – Existing Environment **32**

General Description 32
Boating use on the John Day River 33
Access to the river 33
Boating experience opportunities on the John Day River 34
Recreational fishing 35
Wildlife viewing and hunting 37
Outfitter-guides and commercial boating 38
Defining desired conditions for boating 39

Managing for Desired Future Conditions 41
Experience quality: boating use levels and crowding 42
Experience quality: boating encounters 44
Experience quality: campsite availability 45
Social and Economic Environment 47
Population and demographic change 49
Employment and income 49
Socio-economics of John Day River boating use 49
Local economic effects of John Day River boating 50
Value of river recreation experiences 52
Sense of Place 52
Environmental Justice 53
Wilderness 54
Cultural Resources and Values 56

Chapter 4 – Effects 57

Recreation 57
Assumptions 57
Alternative 1: Boater Capacities Not Prescribed (No Action) 57
Alternative 2: Boater Capacities Prescribed (Proposed Action) 60
Alternative 3: Boater Capacities Prescribed with Reserved First-Night Campsites 66
Social and Economic Environment 71
Methodology for Analysis 71
Economic effects in the planning area 73
Alternative 1: Boater Capacities Not Prescribed (No Action) 74
Alternative 2: Boater Capacities Prescribed (Proposed Action) 75
Alternative 3: Boater Capacities Prescribed with Reserved First-Night Campsites 76
Environmental Justice 77
Wilderness 78
Cumulative Effects 79

Chapter 5 – Tribes, individuals, organizations and agencies consulted 81

Chapter 6 – List of preparers 82

Prineville BLM 82
Others 82
Contractors 82

Appendix A: Map of Planning Area 83

Appendix B: Summary of Scoping Comments **84**

Appendix C: Desired Future Conditions, Indicators and Standards for John Day River Boating **99**

Appendix D: References **105**

Chapter 1 – Introduction

The John Day Wild & Scenic River in north central Oregon is one of the longest free-flowing river systems remaining in the United States. Recreation has been determined to be one of the Outstandingly Remarkable Values (ORVs) of the John Day River due to the diversity and quality of recreation opportunities available, including high-quality river float trips. The boating component of the recreation ORV is the focus of this environmental assessment (EA). Additional ORVs identified for the John Day Wild & Scenic River are scenery, fish, wildlife, geological, paleontological, archaeological, historical, botanical and ecological values. The Wild & Scenic Rivers Act (WSRA) requires the managing agency to protect and enhance each ORV.

The Bureau of Land Management (BLM) is responsible for protecting the John Day River's Wild & Scenic values, and manages the river in cooperation with The Confederated Tribes of the Warm Springs Reservation, Oregon Parks and Recreation Department, Oregon Department of Fish and Wildlife, Oregon Department of State Lands, and the John Day Coalition of Oregon Counties (the John Day River Interagency Core Team).

The BLM is required by the WSRA to state in river management plans the kinds and amounts of public use that river areas can sustain without impact to the values for which they were designated. The 2000 John Day River Management Plan, Two Rivers, John Day, and Baker Resource Management Plan Amendments and 2001 Record of Decision (River Plan) direct the BLM to establish appropriate visitor capacities where boater use has the potential to adversely impact river values.

A *visitor capacity* is a prescribed number of recreation opportunities that will be provided in a defined recreation area (Haas 2008). The term *boater capacity* is used and has the same meaning in this document because the actions described apply only to boaters. Under BLM policy, a permit system may be used to regulate access to Wild & Scenic Rivers in order to protect and enhance river values. The River Plan specifies that if a permit system is implemented, trip permits would be allocated via a common pool reservation system to all users in the same manner. (USDI Bureau of Land Management 2000, 2001.)

This EA addresses boating use on Segment 2 (70-miles, Clarno to Cottonwood) and Segment 3 (48-miles, Service Creek to Clarno) of the John Day Wild & Scenic River (see map in Appendix A) where river float trips are popular and steadily increasing. Boating use is heavily concentrated in spring and early summer when river flows are most optimum. On Segment 2, boaters commit to a 70-mile float trip, usually taking about 5 days. Much of Segment 2 passes through Wilderness Study Areas, without road access. Segment 3 is less primitive with several access points that allow for day or overnight trips up to 4 days in length. Segments 2 and 3 are also designated as Oregon Scenic Waterway.

From 1998-2010, the BLM conducted intensive recreation monitoring of areas visited by boaters to determine the effects of boating use on recreation resources. This ongoing recreation monitoring together with additional resource specific monitoring of scenery, fish, wildlife, geologic, paleontological, archaeological, historical, botanical and ecological values, indicates that ORVs of the river are currently being protected and enhanced. But monitoring also indicates that social aspects of the recreation ORV are under stress during peak use periods, when increasing boater use is causing the quality of the recreation experience available to boaters to decline. Public input (Appendix B) and BLM monitoring (see Table 1 below) indicate that boating use on Segments 2 and 3 during peak use periods has reached levels that require the BLM to prescribe the capacity of the river to support boating use in order to maintain the quality of the boating recreation experience.

In response, this EA analyzes two boater capacity prescriptions (action alternatives) for the number of boating opportunities that would be provided in Segments 2 and 3. The actions described would apply only during the period in spring and early summer when the majority of boating use occurs, termed the *Primary Boating Season* for the purposes of this EA. The Primary Boating Season is defined initially as May 20-July 10, and encompasses all dates on which targets for campsite availability have been exceeded. The exact start and end dates for the Primary Boating Season would be periodically reviewed and potentially adjusted under the action alternatives.

Both action alternatives would require all overnight and most day boaters to obtain a permit in advance of their trip for boating during the Primary Boating Season. One action alternative would also require boaters to reserve their first night campsite on an overnight boating trip, allowing more overnight boating groups to launch each day than the other action alternative. A "no action" alternative is also analyzed.

Need for action

Wild & Scenic River Act management guidelines stipulate ongoing studies to determine the quantity and mixture of recreation and other public use which can be permitted without adverse effects to designated Wild & Scenic River areas. (47 Fed. Reg. at 39, 458-59). The BLM has identified river float trips as the most common recreational activity occurring in Segments 2 and 3 of the John Day River. The River Plan directed the BLM to use a Limits of Acceptable Change (LAC) study to determine appropriate levels for boating use in Segments 2 and 3 and make other recreation management decisions. This study – the John Day River Study - was completed by the BLM Prineville District with the help of the John Day River Interagency Core Team. (USDI Bureau of Land Management 2006a.) The River Plan also stated that management decisions would be based on resource conditions, social preferences and maintaining the desired future condition of these river segments, and that resource indicators, standards, and management actions would be developed through an environmental assessment process. (USDI Bureau of Land Management 2001.)

The John Day River Study described the desired physical, social and managerial conditions (Desired Future Conditions, or DFC) for Segments 2 and 3, and also identified indicators to measure the DFCs, and standards that define minimum acceptable conditions. The study designed monitoring techniques to determine if and when management actions need to be taken to keep conditions within standards, and listed possible management actions to be taken if necessary (Appendix C). The study recommended that the capacity of the river to support boaters should be prescribed when use levels, monitoring and public feedback indicate that standards for boating encounters, campsite availability and other indicators may be exceeding acceptable limits. The study also recommended targets for boating use levels designed to keep changes to social conditions in Segments 2 and 3 within acceptable limits. The John Day River Study did not analyze a range of alternatives for managing campsite availability and boating encounters within standards, which is the purpose of this EA process.

Outstandingly Remarkable Values identified for the John Day Wild & Scenic River are scenery, recreation, fish, wildlife, geological, paleontological, archaeological, historical, botanical and ecological values. (USDI Bureau of Land Management 2000.) Effects to the river's ORVs were analyzed in the John Day River Plan Final Environmental Impact Statement (the River Plan, USDI Bureau

of Land Management 2000.) The alternatives in the River Plan analyzed a range of interim daily launch targets to be implemented in Segments 2 and 3 through non-permit measures until a Limits of Acceptable Change (LAC) study could be completed to determine the appropriate levels for boating use. Estimates of expected increases in boating use made in the FEIS have been validated by boating use monitoring. Based on monitoring, the effects to ORVs have been consistent with those expected in the FEIS, or in many cases are less than those expected. Limits to boating use numbers to protect ORVs other than recreation were not identified as a need in the LAC study or monitoring efforts.

The following resource trends in Segments 2 and 3 are provided in support of this conclusion:

- Monitoring of known paleontological, historical and botanical sites shows that these values have not been affected by recreational boating use over the past 10 years.

- Monitoring of known cultural sites shows that unauthorized excavation of some sites has occurred, however evidence suggests that the vandalism is not tied to recreational boating.

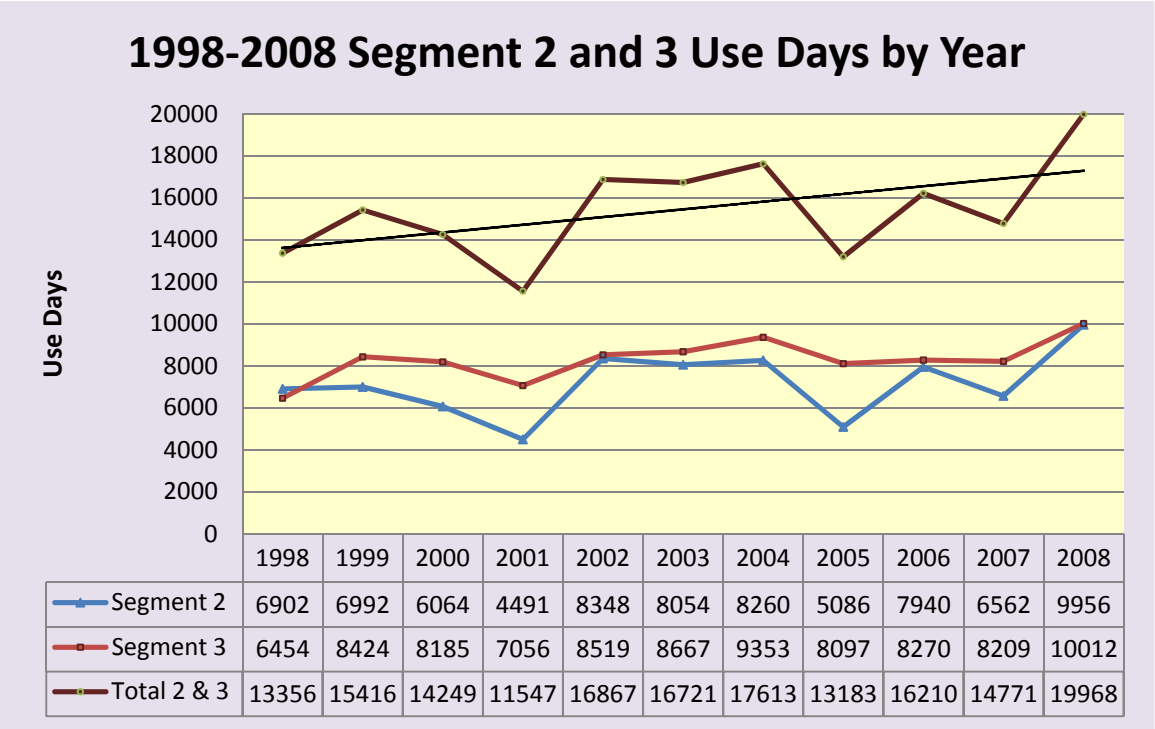
- Wildlife, fisheries, botanical, ecological, and scenery all are affected by vegetative conditions.

    - Over the past 10 years sites occupied by willow have increased seven fold.
    - Potential Future Condition (PFC) ratings for riparian vegetation completed in 2008 indicate that the vast majority of reaches in Segment 2 and 3 are either in an upward trend or at PFC.
    - Increased riparian vegetation has improved scenery by making many boater campsites less visible from the river.

- California bighorn sheep populations have grown to a point where the John Day populations are a source population for transplants to other areas; there are no known populations of bald eagle or peregrine falcon and both have been removed from the Threatened and Endangered species list; waterfowl populations have increased substantially due to increased forage provided by commercial farming in surrounding areas; and improvements in riparian vegetation have increased hiding cover, nesting cover, and foraging opportunities for numerous species.

The number of boating use-days recorded in 2008 on Segments 2 and 3 was about 50% greater than the number recorded on Segments 2 and 3 in 1998 (Table 1). Over this 10-year period, annual use days increased or sometimes decreased from year to year, depending on river flows, with an average 4% increase per year. Over the same period, the number of boat launches in Segments 2 and 3 during the Primary Boating Season increased 43% from 515 in 1998 to 739 in 2008, an average 4% increase per year. Based on current trends, future boating use days and boat launch numbers are expected to continue to increase at an average rate of 4% per year in future years. Over this time period, average group size has remained constant at 5 persons per group.

Table 1: John Day Wild & Scenic River Use-Days, Segments 2 (Clarno to Cottonwood) and Segment 3 (Service Creek to Clarno), 1998-2008



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Segment 2	6902	6992	6064	4491	8348	8054	8260	5086	7940	6562	9956
Segment 3	6454	8424	8185	7056	8519	8667	9353	8097	8270	8209	10012
Total 2 & 3	13356	15416	14249	11547	16867	16721	17613	13183	16210	14771	19968

It is still possible to visit the John Day River and find solitude during certain times, and not all boaters agree that capacities for boaters need to be prescribed. But reports of crowding and competition for campsites are increasingly common, especially during peak use periods - primarily weekends and holidays. Rising boating use and large fluctuations in the number of groups launching daily

across the Primary Boating Season have made it increasingly difficult for John Day River boaters to consistently achieve satisfying recreation experiences.

In order to comply with the WSRA and the John Day River Plan the BLM must act to ensure that boating use patterns do not degrade the outstandingly remarkable recreation value on the John Day Wild & Scenic River by prescribing boater capacities for Segments 2 and 3, and managing boating use within those capacities. This action is needed for the BLM to maintain the DFCs for Segments 2 and 3, including the ability of each boating group to secure their own suitable campsite each night, and standards for the frequency of onriver encounters between boating parties. (USDI Bureau of Land Management 2006a.)

Purpose of action (objectives)

The purpose of the proposed action is to:

- Continue to provide high quality non-commercial and commercially-guided recreational boating opportunities to the public on Segments 2 and 3 of the John Day River.
- Provide reasonable access for boaters to high quality recreational boating opportunities that are consistent with Desired Future Conditions for recreation setting character in Segments 2 and 3.

Relevant policies and plans

The actions proposed by this EA are guided primarily by the Wild & Scenic Rivers Act (PL 90-542) and the John Day River Plan. The Wilderness Act provides direction for the kinds of recreation setting characteristics and experiences that are appropriate for river reaches that include designated Wilderness. (A small portion of Spring Basin Wilderness is located within the Wild & Scenic River boundary in Segment 3.) The Federal Lands Policy and Management Act and the BLM Interim Management Policy for Lands under Wilderness Review (USDI Bureau of Land Management 1995) provide direction for management of Wilderness Study Areas.

The WSRA gives the BLM the authority to regulate boating use. BLM policy direction for management of "recreational" Wild & Scenic Rivers (WSRs) also states that public use and access may be regulated and distributed where necessary to protect and enhance recreational river values. (USDI Bureau of

Land Management 1992; BLM Manual H-8351 at .51c2h.) BLM policy for recreation permit administration recognizes that a permit system for individual use of Special Areas may be necessary in order to protect resources and achieve the management objectives of the special area. (USDI Bureau of Land Management 2006b; BLM Manual H-2930-1 at 12, 22 and 43 CFR 2932.11.) The John Day Wild & Scenic River is identified by BLM as a Special Area.

As directed by the WSRA and John Day River Plan, the John Day River Study (also referred to as the Limits of Acceptable Change [LAC] Study) defined appropriate types of recreation experience opportunities for Segments 2 and 3, established indicators and standards for Desired Future Conditions for boating use and developed possible management actions (USDI Bureau of Land Management 2006a). The Desired Future Conditions for Segments 2 and 3, and the indicators and standards for Campsite Availability, Boating Encounters, and Camp to Camp Solitude developed in the John Day River Study are used in this EA in the analysis of alternatives for managing boating use on the John Day River. Campsite inventory data used to develop the boater capacity recommendations in the John Day River Study were current as of 2004. The BLM updated the campsite inventory in 2009, and the boater capacity recommendations made in the John Day River Study have been revised accordingly in this EA to reflect the updated inventory data. Also, BLM has updated the standards for Campsite Availability and Boating Encounters. (See Alternatives considered but not analyzed.)

Scoping and Issues

In July 2008, public comments were solicited during a public review of the John Day River Study and its recommendations. A letter was sent to approximately 1,500 parties including 2005 and 2006 John Day River trip leaders, adjacent land owners, and other managing agencies directing them to a BLM website where on-line comments were taken. The letter also explained how to receive a paper copy of the John Day River Study and provide comments by mail.

During a 45-day scoping period, 29 public comments were received. Respondents reported evidence of crowding and overuse by boaters on Segments 2 and 3, such as lack of available campsites and high numbers of encounters with other boating groups. Overall, responses reflected considerable (but not universal) support for limiting boater numbers during the Primary Boating Season in order to protect the quality of recreation resources and

experiences. Comments in support of prescribed boater capacities included these:

> *"As an annual guest to the John Day, I have never seen more boats than I did this year [2008]…I think it has come to the point of making the river available only by permit."*

> *"While I understand that there are problems with a system which limits river use through permits, I'd much rather have to deal these problems than see the John Day experience the abuse that other western rivers are experiencing."*

> *"As a 10-year repeat visitor, I enjoy the amount of wildlife, extreme temperature scales, pristine water condition, serenity, amazing scenery and the small-mouth bass fishing- it's a heavenly experience. The John Day is a Wild & Scenic River first and foremost, hope it stays that way. I would humbly request some type of limitation on the total number of humans allowed to float this incredible piece of Mother Nature."*

Public comments on the John Day River Study are summarized in Appendix B. A more formal survey of boater attitudes conducted by BLM in 2001 and 2002 revealed that overall, 50% of John Day boaters would support a limited-entry permit system on peak use days, with greater support for a permit system if it resulted in fewer encounters on the river, or less degradation of campsites and riparian areas (USDI Bureau of Land Management 2004). River use has increased considerably since the 2001 survey was conducted.

The following issues were raised during scoping and will be considered in detail in this EA:

1. ***How would the alternatives affect the overall quality of boating recreation experiences?***

2. ***How would the alternatives affect boaters' ability to access suitable campsites on the river?***

3. ***How would the alternatives affect boaters' perceptions of crowding on the river and in campsites?***

4. ***How would the alternatives affect boaters' ability to access the river for float trips?***

5. ***How would the alternatives affect boaters' ability to launch a trip on short notice?***

6. ***How would the alternatives affect commercial outfitter-guide services' ability to schedule and market trips?***

7. ***How would the alternatives affect local economies, individuals and businesses that derive income from John Day River recreation?***

8. ***How would the alternatives affect local residents' "sense of place" with regard to the John Day River?***

Issues considered but not analyzed

The potential for effects of the proposed actions analyzed in this document to ORVs other than recreation was considered but eliminated from further analysis because current resource specific monitoring indicates that the current level of recreational boating use is not showing measurable effects to other ORVs or to other recreational activities in the river segments covered by this EA. Management actions specified under any alternative are not expected to affect resources other than boating recreation opportunities. Monitoring of ORVs will continue into the future.

Issues outside the scope of analysis

System for allocating permits to non-commercial and commercial boaters

On any river where the capacity for river float trips is prescribed, boaters have an interest in how permits to access the river are allocated and distributed. The type of system that would be used to allocate permits to non-commercial and commercial segments of overall boating use (in the event that boater capacities are prescribed) has been an issue for John Day River boaters in the past.

The John Day River Plan addressed this issue, stating that:

> *"Trip permits would be allocated through a first-come, first-served common pool reservation system to all users in the same manner. The applicable use fee would be due in advance to hold a reservation. Any*

canceled trip permits would again become available for reservation." (USDI Bureau of Land Management 2001, p. 18.)

The River Plan decision to implement the common pool allocation system (in the event that boater capacities are prescribed) was provisional upon two conditions being met:

- Such a system is successfully phased in on at least one segment of the Deschutes River, and

- An independent evaluation of the successfully phased in Deschutes River allocation system, including a survey of Deschutes River boaters (non-guided users, guided users, and commercial outfitter-guides and outfitters), and agency personnel including field staff and managers, must indicate the allocation system implemented on the Deschutes River has proven workable for each of these groups. (USDI Bureau of Land Management 2001, p. 19.)

Researchers from Oregon State University (OSU) examined the Lower Deschutes River common-pool allocation system and conducted the survey called for by the John Day River Plan. The OSU researchers found that the allocation system has been successfully implemented and has proven workable for the boater groups cited by the John Day River Plan. (Oregon State University 2009.)

In the event that boater capacities are prescribed for Segments 2 and 3 of the John Day River, the decision to allocate boater permits through a first-come, first-served common pool reservation system has already been made in the 2001 John Day River Plan and Record of Decision, and the conditions for doing so have been met. The type of system that would be used to allocate permits among commercial and non-commercial boating sectors is thus outside the scope of this EA.

Boater fees

The BLM currently does not charge a fee to access the river for boating. But the potential for fees to be implemented in the future is of interest to John Day River boaters, and was mentioned during scoping. The BLM may implement boater fees at any time under existing authority. Because the authority to implement boater fees would continue to exist under any alternative, fees were not analyzed in this EA.

Grazing effects on boating

Grazing effects on boating recreation have been an issue in the past and were raised again during scoping. Grazing was addressed in the 2001 John Day River Plan and Record of Decision. This EA is focused on mitigating the effects that crowding may have on boating recreation experiences. None of the actions or decisions that may result from this EA pertains to grazing, nor would they change the effects that grazing may have on boating recreation.

Campsite cleanliness

BLM monitors the condition of river campsites to ensure that resources are protected and campsites are in acceptable condition to be enjoyed by river users. The John Day River Study described the DFC for boat-in campsites and identified indicators with corresponding standards and possible management actions to protect the DFC for campsites. Indicators include fire rings, litter, human waste and camp structures. Monitoring of these indicators from 1998-2010 has shown that the cleanliness of camps fluctuates with the behavior of users, however the cleanliness of camps is gradually improving and standards for these indicators are generally being met. Effects that do occur to campsites from fire rings, litter, human waste and camp structures are usually temporary and can be mitigated with no lasting effects. If needed, the John Day River Study lists many possible management actions, including education and law enforcement, which may be implemented under existing authority to improve attainment of campsite cleanliness standards. Because the authority to implement these actions would continue to exist under any alternative, they were not analyzed in this EA.

Campsite tree damage and loss

Current BLM monitoring indicates that trees found near the center of boater campsites are being damaged or destroyed by boaters over time. These trees (almost exclusively western junipers but in at least one instance a hackberry) are valued by John Day River boaters for shade, wind protection and visual screening. The presence of trees is often a primary criterion for boaters when choosing a campsite. However, some boaters break off branches or cut down whole trees that provide the shade that helps to make the campsite desirable. Trees lost to boaters who cut them for firewood are a serious concern but a matter of individual misbehavior and not related to boating use levels. The John Day River Study described the DFC for campsite trees and identified indicators with corresponding standards and possible management actions which may be implemented under existing authority to protect campsite trees. Because the

authority to implement these actions would continue to exist under any alternative, they were not analyzed in this EA.

Chapter 2 – Proposed Action and Alternatives

This chapter describes a no action alternative that would continue existing management, and two action alternatives for establishing boater capacities on Segments 2 and 3 of the John Day River. A boater capacity is a prescribed number of recreation opportunities that will be provided in a defined recreation area. The BLM used the indicators of *first night campsite availability* and *onriver encounters between different boating groups* to establish the boater capacities listed under Alternatives 2 and 3. These indicators of boating recreation experience quality are described in detail in Chapter 3.

Proposed Action

The proposed action (Alternative 2) is to prescribe visitor capacities for Segments 2 and 3 of the John Day River from May 20-July 10 annually, as follows:

- On Segment 2, the capacity for boat trip launches for all downriver trips of any distance or duration, from any launch point, would be set at 9 launches per day.

- On Segment 3, the capacity for boat trip launches for overnight trips would be set at 19 launches per day. The capacity for boat trip launches for day use trips on Segment 3 would be set at 24 launches per day.

Under Alternative 1 (no action), if recent use trends continue, the number of boating groups launching per day during the Primary Boating Season would continue to cause BLM standards for campsite availability and onriver encounters with other boating groups on Segments 2 and 3 to be exceeded on high use days. Over time, these standards would be exceeded with increasing regularity.

Alternatives 2 and 3 (action alternatives) would reduce crowding during the Primary Boating Season in order to maintain and increase the quality of boating recreation experiences on the John Day River and protect the recreation ORV. Specifically, both action alternatives were designed to keep BLM standards for campsite availability and onriver encounters with other boating groups on Segments 2 and 3 of the John Day River within Limits of Acceptable Change so that Desired Future Conditions are met.

Under Alternative 2, the number of boating groups allowed to launch overnight trips each day on Segments 2 and 3 would be prescribed during Primary Boating Season, but boaters would not be required to reserve their first night campsite prior to launching. Encounters with other boating groups and competition for campsites are generally highest on the first day of John Day River float trip, when boaters travel an average of about 15 river miles. Alternative 2 boater capacity numbers for overnight trips are based on 70% occupancy of all suitable campsites within 15 miles below launch points (USDI Bureau of Land Management 2006a).

Alternative 3 is similar to Alternative 2 but would additionally require overnight boaters to choose and reserve their first night campsite in advance, when they acquire their permit. Alternative 3 boater capacity numbers for overnight trips are based on 100% occupancy of all suitable campsites within 15 miles below launch points. The number of daily launch opportunities would be about 30% greater under Alternative 3 than under Alternative 2 because utilization of suitable first night campsites could be maximized under Alternative 3.

Alternative 2 would allow boaters the option to select their first night's campsite while on the river, with the tradeoffs being less certainty that desired first night campsites would be available, and that fewer daily launch opportunities would be available because suitable campsites would be utilized less efficiently compared to Alternative 3. First night campsite reservations under Alternative 3 would allow more efficient utilization of suitable campsites in these reaches, so more boating groups could be allowed to launch, with the tradeoffs being the loss of the option to choose the first night's campsite while on the river and more encounters with other boating groups compared to Alternative 2.

Under either Alternative 2 or Alternative 3, the total number of boating groups allowed to launch day trips each day within Segment 3 would also be prescribed during the Primary Boating Season, except for the Priest Hole Recreation Site (River Mile 136.5-137.5) where a boater capacity would not be prescribed.

The following section lists specific management actions for each alternative.

Alternative 1: Boater Capacities Not Prescribed (No Action, Continue Existing Management)

1. Each group of boaters traveling and/or camping together would continue to be required to obtain a permit prior to launching trips of any distance or duration on Segments 2 and 3, regardless of whether they launch from or take out on BLM, state or private land.

2. The maximum size for each separate boating group traveling under one permit would continue to be 16 persons.

3. Segment 2 of the John Day River is managed to provide a *semi-primitive, non-motorized river* (Recreation Opportunity Spectrum, ROS) or *back country* (Benefits Based Management) recreation setting. Segment 3 is managed to provide a *roaded natural river* (ROS) or *front country* (Benefits Based Management) recreation setting. (See Chapter 3 for more details on setting descriptions.)

4. The management standard for camp-to-camp solitude (minimum distance between suitable campsites) is 300 feet in Segment 2, and 175 feet in Segment 3.

5. Boat trip-related information including maps, regulations and Leave-No-Trace camping practices would be available on the John Day Boater website.

6. Boater permits would be available on the John Day Boater website, and also at launch points.

7. Capacities for the number of boating groups launching each day on Segments 2 and 3 would not be prescribed and campsite reservations would not be required.

Alternative 2: Boater Capacities Prescribed (Proposed Action)

Alternative 2 includes actions 1-5 listed under Alternative 1 and the following additional actions:

1. In Segment 2, daily onriver encounters would not exceed 7 other boating groups outside of recreation sites with vehicle access, and 15 other boating groups including at recreation sites with vehicle access.

2. In Segment 3, daily onriver encounters would not exceed 15 other boating groups outside of recreation sites with vehicle access, and 30 other boating groups including at recreation sites with vehicle access.

3. To launch during the Primary Boating Season, boaters would obtain a permit in advance by website or phone through the National Recreation Reservation Service (NRRS). Available launch permits would be released in phases to accommodate shorter and longer lead times for trip planning. Canceled permits would be re-issued to other boaters. A real-time launch calendar on the NRRS website would show the number of permits issued and the number of permits still available by date. Outside of the Primary Boating Season, permits would be available at launch sites.

4. The following Rules of Conduct and Leave-No-Trace camping requirements would be put in place for public lands located within the John Day Wild & Scenic River Corridor in order to protect and enhance the river's Outstandingly Remarkable Values:

   • All fire restrictions must be followed; fireworks are strictly prohibited.

   • When allowed, campfires must be contained in a metal fire pan or on a fire blanket that protects the ground from scarring and ash. All ash and unburned contents of the fire shall be removed and carried out of the river corridor.

   • You must not gather, cut, burn, or destroy any standing wood, either alive or dead, found within the river corridor.

   • An approved portable toilet must be carried and used by all members of overnight boating groups, and the contents disposed of properly. Toilet contents and human waste disposal bags may not be dumped into any BLM vault toilet or any other facility not developed and identified especially for that purpose.

   • Each boating group must accurately complete a BLM John Day River boater registration form and/or acquire the required permit prior to launching.

• You must not violate any term or condition of a BLM boater registration, permit, contract, special-use authorization, or approved operating plan.

• You must not operate or travel by boat with a group that exceeds the maximum group size of 16 persons.

• You must not launch a boat; take out a boat, or camp in an area designated as closed to such activity.

5. Boater capacities would be prescribed for Segments 2 and 3 of the John Day River during the Primary Boating Season - initially May 20th to July 10th. All boater capacities listed below would apply during this period. Start and end dates for the Primary Boating Season could be adjusted in the future, if necessary, to better correspond with dates when the majority of boating occurs.

6. Boater capacities would be set as follows:

   6a. Within Segment 2, the capacity for all boat trip launches for trips, of any distance or duration, from any launch point, would be set at 9 launches per day (Table 2).

   6b. Within Segment 3, the capacity for boat trip launches for overnight trips would be set at 19 launches per day, comprised of no more than 9 total launches per day from Muleshoe and Service Creek combined, and no more than 10 total launches per day from Twickenham, Priest Hole and Lower Burnt Ranch combined (Table 3).

   6c. Within Segment 3, there would be 24 launches per day reserved for day use trips. The total capacity for boat trip launches for overnight trips and day trips combined would be set at 43 launches per day. For example, if all 19 overnight launches were assigned, there would be 24 day use launches available. Unused Segment 3 overnight launches would become available for day use launches (Table 3).

   6d. In Segment 3, the capacity for boat trip launches for day trips would not be prescribed within the Priest Hole Recreation Site (River Mile 136.5 to 137.5). Boater permits for day use within this zone would continue to be required and would be available on-site at the Priest Hole boater registration station.

6e. River managers could temporarily *decrease* the number of daily launches in emergency situations (flood, fire, insect infestations, health and safety concerns, etc.). River managers could *increase* the number of daily launches by a maximum of 2 launches per day as a result of land acquisition, recreational easement, or campsite rehabilitation, provided that standards for onriver boating encounters are not exceeded.

Alternative 3: Boater Capacities Prescribed with Reserved First Night Campsites

Alternative 3 includes actions 1-5 listed under Alternative 1, actions 1-5 listed under Alternative 2 and the following additional actions:

1. During the Primary Boating Season, boaters wishing to camp their first night within 15 miles downstream from Clarno in Segment 2, and 15 miles downstream from Service Creek, Twickenham, Priest Hole or Burnt Ranch in Segment 3 would reserve their first night campsite in advance at the time they obtain their permit through the NRRS. Boating group size would be aligned with campsite size, e.g. small groups use small campsites.

2. A group wishing to travel farther than 15 miles their first day would not need a first night campsite reservation unless launching from Service Creek, where they would float into the 15-mile reservation section that begins at Twickenham. However, their launch would still count as one of the pool of available launches issued for that segment and date, because their group would affect encounter rates.

3. Boater capacities would be set as follows:

   3a. Within Segment 2, the capacity for boat trip launches for all trips, of any distance or duration, from any launch point, would be set at 13 launches per day (Table 2).

   3b. Within Segment 3, the capacity for boat trip launches for overnight trips would be set at 29 launches per day, comprised of no more than 13 total launches per day from Muleshoe or Service Creek combined, and no

more than 16 total launches per day from Twickenham, Priest Hole or Lower Burnt Ranch combined (Table 3).

3c. Within Segment 3, there would be 14 daily launches reserved for day use trips. The total capacity for boat trip launches for overnight trips and day trips combined would be set at 43 launches per day. For example: If all 29 overnight launches in #3 above were assigned, there would be 14 day use launches available. Unused Segment 3 overnight launches would become available for day use launches (Table 3).

3d. River managers could temporarily *decrease* the number of daily launches in emergency situations (flood, fire, insect infestations, health and safety concerns, etc.). River managers could *increase* the number of daily launches by a maximum of 2 launches per day as a result of land acquisition, recreational easement, or campsite rehabilitation, provided that standards for onriver boating encounters are not exceeded.

4. For each boating group, camping would be limited to one night (no layovers) within the first 15 miles downstream from Clarno in Segment 2, and 15 miles downstream from Service Creek, Twickenham, Priest Hole and Burnt Ranch in Segment 3, the areas where campsite competition is highest.

5. All watercraft in a boating group accessing the river under the same permit would be required to stay together while traveling downriver. No craft in a boating group could be more than 15 minutes behind the lead boat.

Summary and comparison of alternatives

The following tables compare and contrast the effects of the alternatives. Table 2 compares the effects for Segment 2. Table 3 compares the effects for Segment 3. Table 4 compares the economic and community effects for both Segments 2 and 3. (Economic and community effects were not broken out by river reach.) The effects of the alternatives are discussed and compared in detail in Chapter 4.

Table 2: Comparison of Alternatives for Segment 2 - Clarno to Cottonwood Recreation Setting = Semi-Primitive Non-Motorized River/Back Country

Alternative → / Factor Compared ↓	Alternative 1: Boater Capacities Not Prescribed (No Action)	Alternative 2: Boater Capacities Prescribed (Proposed Action)	Alternative 3: Boater Capacities Prescribed with Reserved First Night Campsites
Maximum launches and boaters per day within Segment 2[1]	Not Prescribed; record 17 launches/day, could reach 22 launches/day in 2015 Up to 352 boaters/day [2]	9 launches per day Suitable 1st night campsites 70% occupied Up to 144 boaters/day [2]	14 launches per day Suitable 1st night campsites 100% occupied Up to 224 boaters/day [2]
Overall quality of boating recreation experience	Highly variable from day to day with declining trend; not predictable; crowding increases	Most improved - more predictable and least crowded	Improved - more predictable and less crowded
Campsite access: -Availability of suitable 1st night campsites -Competition for campsites	Suitable 1st night campsite not available for 21 groups in 2008, 25 groups by 2015. Highest level of competition for campsites	Suitable 1st night campsite available for all groups- 9 groups choose from 14 sites. Lowest competition for campsites on other nights	Suitable 1st night campsite guaranteed by reservation- 14 groups occupy 14 sites. Moderate competition for campsites on other nights
Crowding: Estimated boating encounters per day[3] (outside of recreation sites with vehicle access)	8.5 other boating groups per day in 2010, estimated to increase to 11 by 2015[3]	4.5 other boating groups per day[3]	7 other boating groups per day[3]
Boater access to the river: -Ease of access -Ability to launch on short notice	Unlimited permits available; no advance permit required; no advance planning needed	Limited permit required to launch; access to permits depends on NRRS system; advance planning needed	Same as Alternative 2
Estimated overnight groups displaced from 1st choice launch date[4]	0	21 boating groups[4]	0
Effects on outfitter-guide trip scheduling and marketing	Scheduling and marketing not affected	Scheduling and marketing are more complicated; access to permits depends on NRRS system	Same as Alternative 2

[1] Number of launches for all launches within Segment 2, including overnight and day use.
[2] Assumes that every boating group launching would have the maximum allowable number of 16 people.
[3] Assumes that a boating group would encounter 50% of all groups launching on the same day, and future launch numbers equal recent daily peaks (Alternative 1) or the maximum prescribed number of launches for that day (Alternatives 2 and 3). Estimate for 2015 assumes a 4% annual increase in Primary Boating Season launches in Segment 2 if present trends continue.

[4] Estimate compares the number of groups that launched each day in 2008 to the number of launches prescribed per day under Alternatives 2 and 3. These groups would have been required to choose a different launch date in 2008, if the capacities described in Alternatives 2 and 3 were in effect then.

Table 3: Comparison of Alternatives for Segment 3 - Service Creek to Clarno Recreation Setting = Roaded Natural River/Front Country

Alternative → / Factor Compared ↓	Alternative 1: Boater Capacities Not Prescribed (No Action)	Alternative 2: Boater Capacities Prescribed (Proposed Action)	Alternative 3: Boater Capacities Prescribed with Reserved First Night Campsites
Maximum overnight launches and boaters per day from Muleshoe and Service Creek combined	Not Prescribed	9 launches per day Suitable 1st night campsites 70% occupied Up to 144 boaters/day[1]	13 launches per day Suitable 1st night campsites 100% occupied Up to 208 boaters/day[1]
Maximum overnight launches and boaters per day from Twickenham, Priest Hole[2] and Lower Burnt Ranch combined	Not Prescribed	10 launches/day– Suitable 1st night campsites 70% occupied, 13 sites-allocates 3 for groups traveling into this reach from upstream.	16 launches/day– Suitable 1st night campsites 100% occupied, 19 sites-allocates 3 for groups traveling into this reach from upstream.
Launches/day reserved for day use, all launch points	Not Prescribed	24 launches per day Up to 384 boaters	14 launches per day Up to 224 boaters
Maximum combined overnight and day use launches per day	Not Prescribed, record 42 overnight launches/day could reach 57 overnight launches/day in 2015; up to 912 boaters/day[2]	43 launches per day Up to 688 boaters[2]	43 launches per day Up to 688 boaters[2]
Overall quality of boating recreation experience	Highly variable from day to day with declining trend; not predictable; crowding increases	Most improved - more predictable and least crowded	Improved - more predictable and less crowded
Campsite access: -Availability of suitable 1st night campsites -Competition for campsites	Suitable 1st night campsite not available for 42 groups in 2008, 55 groups in 2015; highest level of competition for campsites	Suitable 1st night campsite available for all groups- 19 groups choose from 32 sites. Lowest competition for campsites other nights	Suitable 1st night campsite guaranteed by reservation- 29 of 32 sites occupied. Moderate competition for campsites on other nights
Crowding: Estimated boating encounters per day	15 other boating groups per day in 2008, estimated to increase to 20 by 2015[3]	15 other boating groups per day[3]	15 other boating groups per day[3]
Boater access to river: -Ease of access -Ability to launch on short notice	Unlimited permits available; no advance permit required; no advance planning needed	Access to permits depends on NRRS system; advance planning needed, more day use permits available than overnight permits	Access to permits depends on NRRS system advance planning needed, more overnight permits available than day use
Estimated overnight groups displaced from 1st choice launch date[4]	0	42 boating groups[4]	13[4]
Effects on outfitter-guide trip scheduling and marketing	Scheduling and marketing not affected	Scheduling and marketing more complicated; access to river depends on NRRS system	Same as Alternative 2

[1] Assumes that every boating group launching would have the maximum allowable number of 16 people
[2] Launches for day trips within Priest Hole Recreation Site (River Mile 136.5-137.5) would not be prescribed.
[3] Assumes that a boating group would encounter 35% of all groups launching the same day, and future launch numbers equal recent daily peaks (Alternative 1) or the maximum prescribed number of launches for that day

(Alternatives 2 and 3). Estimate for 2015 assumes a 4% annual increase in Primary Boating Season launches if present trends continue.

[4] Estimate compares the number of groups that launched each day in 2008 to the number of launches prescribed per day under Alternatives 2 and 3. These groups would have been required to choose a different launch date in 2008, if the capacities described in Alternatives 2 and 3 were in effect then.

Table 4. Comparison of Alternatives for Segments 2 and 3: Local economic and community effects

Alternative → / Factor Compared ↓	Alternative 1: Boater Capacities Not Prescribed (No Action)	Alternative 2: Boater Capacities Prescribed (Proposed Action)	Alternative 3: Boater Capacities Prescribed with Reserved First Night Campsites
Economic effects[1]: -local jobs supported -Labor income	32 $1,055,000	30 $991,000	31.6 $1,042,000
Local residents' sense of place and attachment to John Day River	May weaken over time due to continued growth in boating use and change in conditions on river	Maintained best, due to most improved conditions on river; least change over time	Maintained better, due to improved conditions on river; less change over time

[1] Estimates generated using IMPLAN Pro software (IMPLAN 2006). Analysis area includes the Oregon counties of Gilliam, Sherman, Wasco and Wheeler only.

Alternatives considered but not analyzed

The following alternatives were considered, but not carried forward for detailed analysis because 1) they would not fulfill requirements of the Wild & Scenic Rivers Act, the Federal Land Policy and Management Act (FLPMA) or other existing laws or regulations, 2) they did not meet the purpose and need, 3) they were already part of an existing plan, policy, or administrative function, or 4) they did not fall within the limits of the planning criteria.

Use boater capacity numbers recommended by the John Day River Study

In 2004, the BLM inventoried campsites on Segments 2 and 3 and identified ten suitable first-night campsites in Segment 2 and thirty suitable first-night campsites in Segment 3. In 2006, the John Day River Study used a standard of 70% occupancy of those sites to establish recommended capacities for the number of boating groups on Segments 2 and 3, based on the 2004 campsite data. In 2009, the BLM updated the campsite inventory and identified fourteen suitable sites in Segment 2 and thirty-two suitable sites in Segment 3. This

increase of six suitable first night campsites overall is primarily attributed to changes in boater behavior and use patterns. (Table 5.)

Table 5. Number of Suitable Campsites[1] within 15 miles of John Day River Segment 2 and Segment 3 Launch Points (2004 and 2009)

	Segment 2- Clarno launch point	Segment 3- Muleshoe, Service Creek, Twickenham & Priest Hole launch points (combined)	Total Suitable First Night Campsites, Segments 2 and 3 (combined)
2004 BLM Campsite Inventory	10 campsites	30 campsites	40 campsites
2009 BLM Campsite Inventory	14 campsites	32 campsites	46 campsites

[1]A suitable boat-in campsite has legal public access, can accommodate camping use without resource deterioration from year to year, meets camp-to-camp solitude standards, has at least 500 square feet of usable flat area, and vehicle use is not the primary form of access.

The BLM is still using John Day River Study indicators and standards to guide river management, including use of the number of suitable first-night campsites as a key indicator, and use of 70% occupancy of those campsites as the basis of an alternative for boater capacities. But because the number of suitable campsites has increased and the 2004 campsite data is no longer current, the numbers for boater capacities recommended by the John Day River Study were not analyzed in this EA. Instead, action alternatives were developed using the updated campsite data from the 2009 inventory.

Use encounters per day standards recommended by the John Day River Study

In 2006, the John Day River Study recommended encounter standards of no more than 5 encounters per day in Segment 2 and no more than 10 encounters per day in Segment 3 (USDI Bureau of Land Management 2006a, p. 36). These encounter standards were guided by the Recreation Opportunity Spectrum (ROS) a widely used tool for inventorying, describing and managing public land recreation settings (Clark and Stankey 1979, Driver and others 1987). In 2007, the BLM adopted the Benefits Based Management (BBM) framework for managing recreation (USDI Bureau of Land Management 2006c, 2007) which complements and extends the ROS to explicitly account and manage for positive recreation outcomes.

Numeric standards for encounters with other groups of people in wildland recreation settings are based on several factors that define the setting. One of these factors is proximity to travel routes, which typically means roads. Establishing standards for a recreational *river* setting is complicated by the fact that the river is a "travel route" but is not a road. After comparing encounter standards recommended by the ROS and the BBM for recreation settings of *semi-primitive non-motorized/back country* (Segment 2) and *roaded natural/front country* (Segment 3), the BLM decided to update encounter standards for Segments 2 and 3. The encounter standards contained in this EA of no more than 7 encounters per day in Segment 2 and no more than 15 encounters per day in Segment 3 (in areas away from roads) considered both ROS and BBM recommendations for encounters in Segment 2 and Segment 3 setting types. Table 6 compares ROS and BBM recommended standards to those developed by the John Day River Study and the revised standards that were used in this EA. See Chapter 3 for a more detailed discussion of encounters as an indicator of recreation experience quality.

Table 6. Comparison of Standards for Encounters: Recreation Opportunity Spectrum, Benefits Based Management, 2006 John Day River Study and 2010 John Day River Study EA

Source of Encounter Standard ↓	**Standard for Back Country (Segment 2)**	**Standard for Front Country (Segment 3)**
Recreation Opportunity Spectrum (ROS) Standard	Little contact with other people (see 6-15 groups per day)	Moderate to high degree of contact with other people on roads (see 30 or more groups per day; see 15-29 groups away from roads)
Benefits-Based Management (BBM) Standard	3-6 encounters per day off of travel routes; 7-15 encounters per day on travel routes	15-29 encounters per day off travel routes; 30 or more encounters per day on travel routes
2006 John Day River Study Encounter Standard	See no more than 5 other boating groups per day	See no more than 10 other boating groups per day
2010 John Day River Study EA - Updated Encounter Standard	See no more than 7 other boating groups per day outside of recreation sites with vehicle access; see no more than 15 other boating groups per day including recreation sites with vehicle access	See no more than 15 other boating groups per day outside of recreation sites with vehicle access; see no more than 30 other boating groups per day including recreation sites with vehicle access

Develop more campsites along the river

Some members of the public have suggested that BLM create or construct new boat-in campsites on BLM land in Segments 2 and 3 of the John Day River in order to accommodate rising boating use levels. The BLM did not consider constructing new campsites, as the decision not to develop new recreation sites was already made in the existing River Plan, which states, *"New recreation sites will not be developed except to replace existing sites that need to be closed to protect resources."* (USDI Bureau of Land Management 2000, p. 183; 2001, p. 20.)

The BLM recognizes that additional campsites may become available without being constructed as a result of land acquisitions and campsite rehabilitation. For example, in some areas regular treatment of noxious weeds and changes in grazing management are improving camping conditions and in the future boaters may find these improved sites suitable for camping. Boaters may find these improved sites suitable for camping and use them more frequently in the future. However, none of these areas are currently located within the first 15 miles of a launch point and therefore do not help mitigate boater congestion in the reaches below the launch points.

Prescribe capacities for individual boaters, not boating groups

One approach to mitigating crowding in recreation settings is to prescribe the number of individual recreationists who will be granted access to the setting at any one time. The BLM considered this approach, but decided it would not address the purpose and need for action, which is to reduce crowding and maintain and increase experience quality for boaters. Crowding in Segments 2 and 3 of the John Day River is indicated primarily by the lack of a sufficient number of suitable first night campsites to accommodate each boating group in their own site during the Primary Boating Season. Thus, the BLM proposes to manage boater use by aligning the number of groups that are allowed to launch with the number of suitable campsites in the 15-mile reaches below primary launch points.

Addressing crowding on Segments 2 and 3 of the John Day River by defining and enforcing capacities for boating groups would directly mitigate the problem of campsite availability. Prescribing the capacity for individual boaters would not. Furthermore, the size of each boating group is capped at 16 people under current regulations, so the numbers of launches proposed per day in the action

alternatives can be multiplied by 16 people to equal the maximum numbers of individual boaters per day (see Tables 2 and 3).

Include more zones in Segment 3 where boater capacity would not be prescribed

In Segment 3, the capacity for boat trip launches for day trips would not be prescribed within the developed Priest Hole Recreation Site (River Mile 136.5 to 137.5) which is accessed primarily by vehicles. Priest Hole is popular with boaters who use a variety of craft to float this one-mile reach, often staging multiple trips per day from the adjacent campground. The reason BLM is not proposing a boater capacity at Priest Hole is to continue to accommodate existing local demand for this type of family and group day floating. During the Primary Boating Season the number of boater encounters per day at Priest Hole often exceeds BLM standards. But the BLM concluded that Priest Hole day boaters are likely less sensitive to frequent encounters than boaters elsewhere on Segment 3, and that applying a boater capacity prescription for day use within the one-mile reach at Priest Hole would unnecessarily restrict this popular use.

In addition to the Priest Hole Recreation Site, the BLM considered additional zones in Segment 3 where experience quality for day boaters could be maintained without prescribing a visitor capacity and where all day boaters wishing to launch could do so, regardless of how many other boaters were also launching that day. The BLM concluded that allowing unlimited day use at other zones in addition to Priest Hole was not advisable, because it would not be possible to ensure that all boaters launching would limit their use to the vicinity of a launch point, rather than continuing downstream.

Chapter 3 – Existing Environment

This chapter describes the existing conditions and context for boating use in Segments 2 and 3 of the John Day River. The BLM is required to protect and enhance each of the Outstandingly Remarkable Values (ORVs) identified for the John Day Wild & Scenic River including scenery, recreation, fish, wildlife, geological, paleontological, archaeological, historical, botanical and ecological values.

The proposed actions are targeted at social conditions for boating recreation, and are expected to primarily affect those conditions. Therefore, this chapter focuses on the existing condition of the recreation ORV, primarily by describing social and managerial factors that influence perceptions of crowding and setting character. Physical and ecological aspects of boating settings are also briefly summarized. Descriptions in this chapter form the baseline for comparison of the effects of the alternatives in Chapter 4.

General Description

The alternatives address recreational boating use on 118 miles of the John Day Wild & Scenic River, Segment 2 (Clarno to Cottonwood), and Segment 3 (Service to Creek Clarno). Segments 2 and 3 are also designated as Oregon State Scenic Waterway.

The BLM administers about 50 of the 70 miles of river frontage in Segment 2. Private lands occur in several small tracts scattered along this segment. The BLM administers about half of the 48 miles of river frontage in Segment 3. Here, BLM-administered lands are scattered along the river, separated by private land tracts of various sizes. Private lands along the river in Segment 3 are often cultivated and irrigated, especially near Twickenham and Clarno.

The analysis area includes the river itself, and adjacent lands that are utilized by boaters for activities such as lunch stops, bank fishing, hiking and overnight camping. The analysis area also encompasses nearby communities including Fossil, Condon, Mitchell, Spray, Service Creek and Twickenham that boaters may visit before and after traveling down the river.

Segments 2 and 3 of the John Day River are located in the Deschutes/John Day Canyons region of the Columbia Plateau, a semi-arid area in northeastern

Oregon where the river has cut a steep and exceptionally scenic canyon through the Wapanum and Grande Ronde flows of the Columbia River Basalts. Precipitation within these segments is 11 to 15 inches of precipitation annually, seventy percent of which falls between November and March. Temperatures vary from sub-zero during winter to over 100°F during summer.

Grasslands and open woodlands adjacent to the river support seasonal livestock grazing on both BLM-administered allotments and private holdings. Considerable vegetative improvement is occurring on allotments where riparian-oriented grazing management has been implemented. Summer wildfires are common in Segments 2 and 3, and some private landowners have expressed concerns about the risk that boaters will accidentally start wildfires, potentially threatening private property including cultivated wheat fields which lie on plateaus above the river canyon. In recent years, most wildfires that have occurred along the river have been lightning caused.

Boating use on the John Day River

Recreation has been determined to be an Outstandingly Remarkable Value on all portions of the John Day Wild & Scenic River (including Segments 2 and 3) because of the diversity and quality of recreation opportunities available. River float trips are the most common recreational use along the river. Other popular recreation pursuits include picnicking, fishing, swimming, camping and hunting. Compared to the neighboring Lower Deschutes River, the John Day has fewer recreation developments along the river, fewer boaters, and fewer and less difficult rapids to negotiate.

Access to the river

John Day River boaters have easy access to the river year-round, including during the Primary Boating Season. Boaters obtain launch permits at registration stations located at launch points. Permits to launch are always available, no matter how many other trips are also launching on that day. No planning is necessary to obtain a permit; boaters can decide at the last minute to go and still be authorized to launch. This enables boaters to react quickly in response to optimum water flows (which can change quickly) or good fishing or weather conditions, and organize a trip on short notice. Commercial outfitter-guides are required to have a Special Recreation Permit from the BLM in order to operate a business on the river, but there is no limit on the number of launches available,

and no advance trip permits are needed to schedule and market trips. All boating groups are able to launch on the date of their choosing. No boating groups are turned away regardless of how crowded the river is, provided they meet the party size and equipment requirements.

Boating experience opportunities on the John Day River

John Day River boat trips range in length from a few hours to 5 days or more, and from one to 70 miles or more. Boating experience opportunities differ between Segments 2 and 3 due to variations in setting character, topography, and amount and type of public access.

In Segment 2, there is no public road access available for 70 miles between Clarno and Cottonwood and boating provides the primary mode of access to the river. Two thirds of the river miles in Segment 2 flow through Wilderness Study Areas which are managed by BLM to protect their suitability for designation as Wilderness by Congress. In Segment 2, boaters have the opportunity for a 5-day semi-primitive, unconfined recreation experience through a remote thousand foot deep canyon—a type of recreation opportunity that is becoming increasingly rare. Clarno Rapid, which is rated Class III or IV depending on water flows, is located near the beginning of the trip and requires a certain level of skill and equipment to negotiate. The remote location and steep canyon topography of Segment 2 require that boaters be self-sufficient and come prepared to handle their own emergencies as cell phone coverage and easy access to help are not available.

In Segment 3, Service Creek to Clarno, there is public road access at several locations within the 48-mile section, which boaters use to launch a variety of one, two and three-day boating trips. Road access and boat launching is available at Service Creek, Twickenham (public access to private property by Oregon Department of Fish and Wildlife agreement), Priest Hole, and Lower Burnt Ranch. Car camping is popular at Service Creek and Priest Hole where some boaters set up a base camp and stage boating trips both upstream and downstream. Boating at the developed Priest Hole Recreation Site includes concentrated use by families and other campers who stage multiple 1-mile float trips on River Mile 136.5 to 137.5 from campgrounds at the recreation site.

Boating in Segment 3 requires a shorter time commitment and less advanced boating skills than Segment 2. The topography of the river canyon includes steep to gently sloping canyon walls and long stretches of wide flood plain. Boaters encounter private property, interspersed with public land, some of which has

been developed with agricultural fields, homes, or ranches. Portions of Segment 3 contain short sections of county or private road that run parallel to the river. Most of these roads receive little use and may not be apparent from river level, but offer a possible route out of the canyon to seek help in an emergency.

Some motorized boating use is allowed in Segment 3, but not in Segment 2. Motorized boats are used from Clarno upstream to Service Creek from October 1 through April 30. Segment 3 is closed to motors between May 1 and September 30, except for one small electric motor with 40 lbs. of thrust or less per boat. Segment 2 is closed to all types of motors year-round. Motorized boating use is permitted in other John Day River segments not covered by this document, including seasonal use in Segment 1 and year-round use in Segment 4. Personal watercraft (jet-skis and similar boats) are permitted on the reservoir below Tumwater Falls only.

Segments 2 and 3 of the John Day River can be floated during most of the year, but cold winters and very low late summer and fall flows discourage most boaters from floating the river during those times. Recreational boating on both segments is heavily concentrated during spring and early summer when river flows are usually high enough to allow use of larger inflatable rafts and hard-hulled drift boats. The primary season for boating is roughly May 20-July 10 but this may vary somewhat from year to year depending on the amount of snowpack and timing of spring runoff. From August through October, some boaters with the time and experience necessary to navigate low water levels float the river in smaller rafts, canoes or inflatable kayaks to access fishing and chukar, deer and bighorn sheep hunting. Small spikes in boating use occur during spring break for local area schools and during the first two weeks of fall hunting season. Some boating use also occurs at other times of year, although the number of use-days is generally low.

Recreational fishing

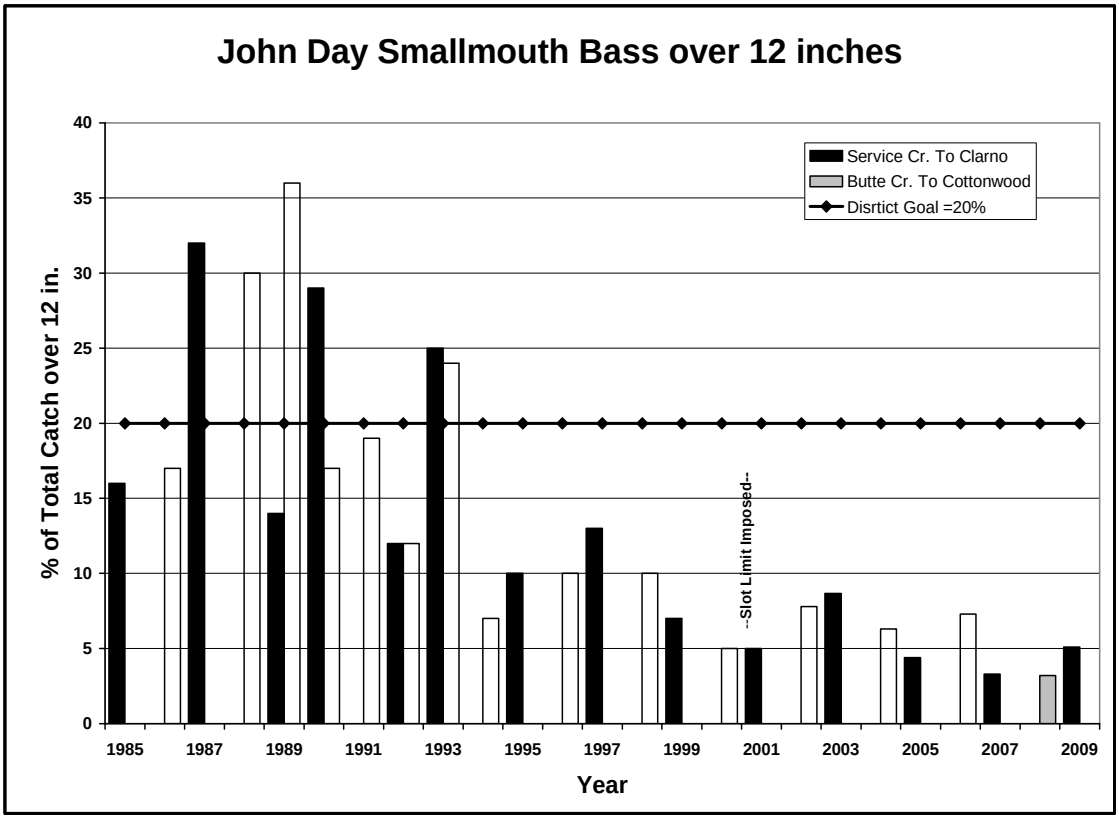
Smallmouth bass (*Micropterus dolomieui*) is a freshwater sport fish native to much of the central U.S. and highly prized by anglers. Upon assurance that predation on native salmonids would be minimal, smallmouth bass were introduced into the John Day River in the early 1970's (ODFW 1999). The smallmouth bass successfully filled a niche in the river, and now support what is nationally recognized as one of the best sport fisheries for this species in the western U.S.

A substantial portion of boating use- both commercial and non-commercial- consists of boaters focused on fishing for smallmouth bass. These boaters

depend on clear water and generally prefer lower flows than boaters focused on the river's scenic qualities, wildlife and whitewater. Smallmouth bass fishing occurs primarily in spring and summer from the confluence of the John Day and Columbia Rivers up to Picture Gorge at River Mile 205 (USDI Bureau of Land Management 2001). In Segments 2 and 3, many boaters report catching and eating several smallmouth bass while on multi-day float trips through this area.

The Oregon Department of Fish and Wildlife (ODFW) has management and regulatory authority over fish in the John Day River. Evidence suggests that the smallmouth bass population (especially the larger size classes) has declined over time, due at least in part to heavy fishing pressure. Since 1985 ODFW has measured the percentage of smallmouth over 12 inches from Service Creek to Cottonwood Bridge. By 1993 very few bass over 12 inches were being recorded in the ODFW sample (Table 7).

Table 7. John Day River Smallmouth Bass Over 12 Inches, 1985-2009



In 2001 ODFW changed the bag limit requiring release of all bass between 12 and 16 inches. The regulation failed to increase the number of bass in this size range due primarily to consumption of these larger bass by boaters during their trips. The ODFW contacts John Day River anglers on the river to promote awareness

of, and compliance with fishing regulations, including bag limits and the benefits of "catch and release" fishing techniques intended to increase the average size of smallmouth bass and improve the quality of recreational fishing for this species. However, on high use days ODFW staff may not be able to contact a majority of anglers and the remoteness of this fishery limits law enforcement's ability to change angler behavior.

The John Day River also supports wild runs of summer steelhead (*Oncorhynchus mykis*), listed under the Endangered Species Act (1973) as Threatened, and spring Chinook salmon (*Oncorhynchus tshawytscha*). Steelhead are not present in the John Day River during the primary boating season when the majority of boating use occurs. Steelhead are present in Segment 2 from September through November, and anglers access the river to fish by foot, and by boat as water flows allow. Current recorded boating use levels during the fall months are low and BLM is not proposing to require advance permits during the fall months at this time. BLM will continue to monitor fall boating use in order to detect future changes in use patterns.

Wildlife viewing and hunting

Opportunities to view wildlife are commonly cited by boaters as a valued component of John Day River float trip experiences. After two decades of restoration efforts, the John Day River canyon supports a healthy and growing population of California bighorn sheep, making them relatively easy to spot. The chance to see bighorn sheep is especially valued as this is one of the rarest large mammal species in Oregon. Mule deer, antelope, beaver, and river otter may also be sighted. Bird life along the John Day River is also quite varied, with many species of waterfowl, songbirds associated with riparian habitats and raptors such as prairie falcons, osprey and eagles.

Mule deer, elk and antelope are common in the John Day River basin and use the foothills along the river as winter range. The BLM cooperates with ODFW in helping to meet population and management goals for these species by providing an appropriate amount and quality of habitat. Hunting is popular for chukar, pheasant, elk and deer along the river and side canyons in Segments, 1 and 2 and boats are often used to access hunting opportunities. In addition, California bighorn sheep are hunted in Segment 2. Fall and winter hunting seasons do not overlap with the spring and early summer peak use boating season.

Most of Segment 2 is within the State of Oregon's John Day Wildlife Refuge. The refuge is currently open to hunting of upland game birds September 1- October 31, but closed to all waterfowl hunting year-round. Canada geese occupy Segment 2 year-round. Other species found in Segment 2 include great blue herons, beaver, mule deer, bobcats, Western rattlesnakes, Pacific treefrogs, nighthawks, cliff swallows, Brewer's blackbirds, spotted sandpipers, golden eagles, prairie falcons, violet-green swallows, canyon wrens, red-tail hawks, osprey and flickers. Segment 2 has one of the few known populations of spotted bat (*Euderma maculatum*) in Oregon. The spotted bat is a special status species. The bald eagle inhabits the river corridor from November to March and the peregrine falcon may occur as a seasonal migrant.

Wildlife species found in Segment 3 are similar to those in Segment 2. Canada geese increase in this segment due to increased forage on agricultural lands and the more open nature of the canyon. Irrigated agricultural fields also provide mule deer, elk, and pronghorn antelope with high protein forage, especially in late summer and early fall when many native forage species have lost their nutrients. Year-long use by osprey, valley quail, Western kingbird, and porcupines also increases and winter use by goshawks, robins, and bald eagles increases in Segment 3, compared to Segment 2.

Outfitter-guides and commercial boating

Outfitter-guides on the John Day River help make boating, fishing and river camping experiences available to individuals who may lack the skill, equipment, or physical requirements to organize and lead a trip of their own. Commercial use is regulated by the BLM through Special Recreation Permits to commercial operators and makes up 10 to 15% of total boating use each year on the John Day River. Float trips (typically guided recreational fishing trips, but scenic, heritage and hunting trips are gaining in popularity) have been the primary commercial recreation use on the John Day River.

Twenty-three authorized outfitters and guides provide boating opportunities to clients on Segments 2 and 3. While generally categorized as commercial these outfitter-guides provide a wide range of recreation experiences to a varied client base and do not always provide a service for profit. Several guide services are affiliated with religious or educational organizations providing experiences catered to individuals seeking personal growth opportunities in an outdoor setting. Other outfitter-guides offer more commercially oriented, niche-specific experiences focused on "world-class bass fishing," or whitewater rafting, scenery and wildlife viewing.

Outfitter-guides can schedule and market trips with certainty that they will be able to launch a trip on any chosen day, regardless of how many other trips are launching that day. But the social conditions they find on the river once they launch are somewhat unpredictable. If conditions on the river are crowded, commercial outfitter-guides may not be able to provide the quality of experience that their clients expect. More details regarding outfitter-guides and commercial boating on the John Day River are provided in the Social and Economic section below.

The BLM also authorizes boat rentals and walk-in fishing trips.

Defining desired conditions for boating

John Day River managers are charged with maintaining the quality of boating recreation experiences on the river over time. Descriptions of the physical, social and managerial conditions for boating that managers aim to achieve and maintain are known as *Desired Future Conditions* (DFCs). The River Plan described desired conditions of the recreation ORV for the 5-Segment John Day Wild & Scenic River system as a whole:

> *"A variety of boat-in, drive-in, and walk-in recreation experiences are provided, including motorized and non-motorized boating on specific segments, and wheelchair accessible opportunities in developed sites. Commercial outfitters provide public service based on assessed need." (USDI Bureau of Land Management 2000, p. 178.)*

The River Plan also specified desired conditions for each river segment, and directed the BLM to use a Limited of Acceptable Change Study (the John Day River Study, USDI Bureau of Land Management 2006a) to determine appropriate levels for boating use and make other recreation management decisions. The John Day River Study further developed the River Plan DFCs using data collected since 1999 on the physical condition of campsites in Segments 2 and 3, and since 1998 from boaters themselves through self-registration stations located at launch points. Boater registration data is augmented by BLM staff stationed at launch points during the Primary Boating Season, where they assist with boater registration compliance and education, and on float patrols where they register any unregistered boaters they encounter.

The BLM also used data from a 2001-2002 study of John Day River boaters on Segments 2 and 3 that assessed existing social conditions and quantified boater

preferences and opinions about potential management actions (USDI Bureau of Land Management 2004.)

To describe desired conditions, the River Plan and the John Day River Study used terms from the Recreation Opportunity Spectrum (ROS) for River Management (US Department of Agriculture 2003). The BLM has since adopted a Benefits Based Management system to describe recreation opportunity classes or settings (USDI Bureau of Land Management 2006c, 2007). The two systems correspond as shown in Table 8.

Table 8. Comparison of Setting Descriptions: Recreation Opportunity Spectrum (ROS) for Rivers, and Benefits Based Management (BBM)

ROS for Rivers Opportunity Classes	Primitive river	Semi-primitive nonmotor-ized river	Semi-primitive motorized river	Roaded natural river	Rural river	Urban river
Benefits Based Management Settings	Primitive	Back Country	Middle Country	Front Country	Rural	Urban

The River Plan provides direction to manage Segment 2 for low-density dispersed recreation in a *semi-primitive* setting except in WSAs, where naturalness and the opportunity for solitude and a primitive, unconfined recreation experience would be maintained corresponding with a *primitive* setting. While the character of a river segment may change by reach or river mile, it is preferable for practical purposes to apply a single opportunity class (setting description) to management of the entire reach. Thus, the John Day River Study further defined the ROS for Rivers opportunity class for Segment 2 as *semi-primitive non-motorized river*. Under BLM Benefits Based Management setting criteria, Segment 2 would be described as *back country.*

Based on River Plan direction the John Day River Study further defined the Desired Future Condition of Segment 2 as a *semi-primitive non-motorized* recreation setting (back country), where low-density dispersed recreation occurs in a largely undisturbed natural environment with a fairly high level of remoteness and isolation from the sights and sounds of human activity. Suitable boat-in campsites are sufficient to accommodate the number of overnight boating groups; it is not necessary to rush ahead to claim a campsite, camp at a site with vehicle access, share a campsite, or camp on private land. Human sights and sounds from adjacent campsites may be seen, but are usually not heard.

Adjacent campsites may be visible, but are far enough away to maintain a feeling of privacy; activities of individuals in other camps cannot be identified and do not interfere with the user's experience. Boaters experience few encounters with other humans not in their group; encounters with others are infrequent, and crowding is minimal; and the opportunity for solitude and primitive unconfined recreation is maintained, especially within WSAs. (USDI Bureau of Land Management 2000, 2001, 2006a.)

The River Plan provides direction to manage some portions of Segment 3 for low-density dispersed recreation in a *semi-primitive* setting, and other portions for medium-density developed recreation concentrated in *roaded natural* or *rural* areas. Rather than attempt to manage Segment 3 for three different opportunity classes, the John Day River Study further defined the ROS for Rivers opportunity class for Segment 3 as *roaded Natural River,* which falls in the middle of the range provided by the River Plan. Under BLM Benefits Based Management setting criteria, Segment 3 would be described as *front country*.

Based on River Plan direction the John Day River Study further defined the Desired Future Condition of Segment 3 as a *roaded natural* recreation setting (front country), where medium-density recreation is concentrated at developed recreation sites and agricultural activities are intermittently encountered. Suitable boat-in campsites are sufficient to accommodate the number of overnight boating groups; it is not necessary to rush ahead to claim a campsite, camp at a site with vehicle access, share a campsite, or camp on private land. Human sights and sounds from adjacent campsites may be seen or heard, but are not distracting and do not detract from the sights and sounds of nature. Boaters experience a moderate number of encounters with other humans not in their group; contact with other groups is expected and occasionally continual, but some opportunities for solitude remain. During peak season, encounters with others are expected on the river and at fishing holes. Human uses and development are more evident in Segment 3 than in Segment 2, and encounters with other users more frequent. (USDI Bureau of Land Management 2000, 2001, 2006a.)

Managing for Desired Future Conditions

Once the desired resource, social, and managerial conditions (DFCs) for an area have been defined, managers select indicators that can be used to monitor the status of the DFCs over time. For each indicator, a corresponding standard or threshold is set, which determines the amount of change that can occur while remaining consistent with desired conditions. The standards then serve as

"triggers" which alert managers to an unacceptable change in conditions. If monitoring indicates that standards for protecting river values are being approached or exceeded, then river managers can apply management actions to help prevent or reverse unacceptable effects.

The John Day River Study identified physical, social and managerial indicators and standards for boating on Segments 2 and 3 of the John Day River. Indicators for social conditions include the number of encounters among different groups while boating on the river each day, and the amount of camp-to-camp solitude or separation between different groups of boaters while at their respective campsites. Physical indicators include the amount of litter, fire rings, tree damage and human waste at campsites. Managerial indicators include the number of launches compared to the number of suitable campsites available in a particular reach of river. Additional details regarding river recreation experience opportunities and physical, social and managerial settings can be found in the John Day River Study (USDI Bureau of Land Management 2006a).

Desired Future Conditions and indicators, standards and monitoring methods for social standards are described in Appendix C. Standards for DFC indicators define the maximum values or limits of change that managers have concluded are acceptable- the Limits of Acceptable Change- for boating conditions on the John Day River. When monitoring shows that standards are not being met, or are at risk of not being met, managers can take action to try to bring conditions for those indicators back within standards that have been defined as acceptable. As a package, DFCs, indicators for these conditions, and standards (Limits of Acceptable Change) represent an objective and practical framework for tracking and maintaining boating recreation values, as required by the WSRA.

Experience quality: boating use levels and crowding

Historically, recreational use of the John Day River has been low primarily because it was relatively undiscovered, is a considerable distance from major population centers, and has limited road access. However, boating use on Segments 2 and 3 has risen dramatically in recent years. There were 13,300 boater use-days in 1998 and 19,900 boater use-days in 2008, a difference of almost 50%. In low water years fewer boaters visit the river, but use rebounds the following year if flows return to average or higher.

Factors that contribute to rising use include publicity resulting from magazine and newspaper articles touting boating and fishing opportunities, improved boating equipment that makes low water boating feasible, the perception that the

John Day is "a good river to learn on", and an ever-increasing number of "regulars" who boat the river each year. When visiting with BLM staff stationed at John Day River launch points, boaters also cite crowding on the Lower Deschutes River as a motivation for visiting the John Day.

In 2001-2002 the BLM surveyed boaters on Segments 2 and 3 to assess social conditions, boater preferences and opinions about potential river management actions. Results indicated that John Day boaters enjoyed high quality recreation experiences and valued their experiences both on the river and in camp. Peace and solitude, scenery, wildlife, and getting together with family and friends were extremely important to more than 94% of respondents. Campsite availability was reported as the greatest problem on the John Day River. (USDI Bureau of Land Management 2004.)

Researchers define crowding in an outdoor recreation environment as a negative evaluation of a particular density of recreationists sharing a given area (Manning 1999). The degree to which visitors to an area perceive the conditions they find as crowded depends primarily on their expectations and what they feel is appropriate for that setting. John Day River boaters' expectations regarding crowding on the river and in campsites may be informed by prior experiences on the John Day or other rivers, by magazine or online articles, by guidebook descriptions and information provided by managing agencies, or by word of mouth. Segments 2 and 3 are not identical in setting character, but both share largely undeveloped, natural characteristics. On both segments visitors expect, and managers aim to provide, opportunities to find solitude and avoid crowding while on the river and in campsites.

Boaters' perceptions of crowding while on the John Day River are directly related to the frequency with which they see other boating groups, compared to the number of groups they expect, or feel is appropriate to see. Characteristics of groups encountered, such their size, behavior, and degree of perceived similarity also affect perceptions of crowding. For example, boaters will generally tolerate more encounters with other boaters that they perceive as similar to themselves and behaving appropriately, than with boaters they perceive as different, especially in some negative way, before interpreting conditions as crowded (Manning 1999).

Crowding can negatively affect several aspects of recreation experience quality, and motivations that people have for visiting the John Day River, e.g. solitude, enjoyment of natural settings, relaxation and reduced stress, escape from daily

schedules and greater flexibility in the use of time (Manning 1999). As river use increases, some boaters may try to avoid crowds by shifting their use to another river segment, a less busy season or day, or another river. Others may cope with crowding by adjusting their expectations to align with the circumstances they encounter, so they can maintain a positive view of their experience rather than becoming dissatisfied. Over time, boaters may lower their expectations to match the actual conditions they find, even though the quality of the experience has deteriorated.

The BLM does not have the option of continuing to allow unlimited boating use on Segments 2 and 3 during the Primary Boating Season. Available evidence indicates that standards for social conditions on the river are now being reached and sometimes exceeded during the Primary Boating Season. Boaters often indicate that of the number of times they encounter other boating groups is such that their expectations for solitude are not being met. Reports of campsite competition and nights when all suitable campsites in reaches below launch points are occupied occur with increasing frequency. Boating encounters and campsite availability are primary indicators that BLM uses to assess and manage for boating recreation experience quality on the John Day River. These indicators are discussed in detail below.

Experience quality: boating encounters

For boaters, the number of groups encountered is a more relevant indicator of crowding than overall use levels (Shelby and Colvin 1982). In other words, the presence of multiple groups on the river is of little consequence to any particular group until two or more groups encounter one another other. For this reason, the frequency with which boaters encounter other groups of boaters is commonly used as an indicator for the quality of this type of recreation experience. Boating groups on the John Day River range in size from one to the maximum allowable party size of 16 people. The number of groups launching overnight trips varies with the day of the week. In Segment 3 use is heavily skewed toward weekends and holidays, when as many as 42 groups have been known to launch overnight trips on a single day. In Segment 2 the busiest launch days are Wednesday through Sunday, with a daily peak of 17 groups launching overnight trips on a single day.

To maintain quality recreation experiences for John Day River boaters over time, BLM has identified the Desired Future Condition (DFC) for boating encounters on each river segment. For the purposes of this document and future John Day River planning, an encounter occurs when a member or members of one boating

group sees a member or members of another boating group of any size. *Encounters per day* - the number of boating groups seen per day, with each group counted only once - is the indicator that the BLM uses. Multiple encounters with the same boating group on the same day are still counted as one encounter. Encounters with other boating groups at recreation sites with vehicle access (e.g. launch points, drive-in campsites), are differentiated from encounters with other boating groups outside of drive-in access points. The number of encounters between groups varies according to time of departure from the boat ramp, rate of travel downriver, the number of stops and time spent on shore during each day, fishing practices, etc., and can vary widely from hour to hour, day to day, and group to group.

Currently, there are no precise, universal standards for encounters being consistently applied across different western rivers that are popular for multi-day float trips. Instead, because each river has its own unique environmental and boater use characteristics, encounter standards are developed on a case-by-case basis for each river, using some combination of general guidance for the type of experience being managed for, conditions specific to that river, input from the public, and professional judgment on the part of river managers.

The number of other groups that a boating group encounters is an important indicator, but in practice this indicator has proven challenging to monitor accurately. The BLM does not have precise monitoring data for current encounters per day on Segments 2 and 3, but reports from long-time river users and encounter rates observed by river rangers on float patrols indicate that the number of boating encounters per day during the Primary Boating Season has increased substantially over the past five years. Encounters per day outside of the Primary Boating Season remain very low, and on some days are non-existent.

Experience quality: campsite availability

John Day River boaters on overnight trips prefer campsites that provide ease of boat mooring and unloading of gear, proximity to flat open areas for meal preparation and tent sites, and shade and wind protection. Other factors that boaters consider include availability of scenic views, opportunities to view wildlife, or proximity to good fishing locations. Campsites with these attributes are limited in number and "prime" campsites that combine several attributes are used repeatedly during the Primary Boating Season. Suitable campsites include most of the prime sites that boaters have utilized over the years, but also some less than optimal sites that are used when all preferred sites are already in use by other groups. Most suitable campsites have been used off and on by boaters for

20 or more years. Over time, some sites may fall into disuse, while others may start to be used more, due changes in boater behavior and use patterns, changes in physical characteristics of the river channel that affect access, human effects such as loss of trees, wildfire or other changes in campsite attributes.

The John Day River Study found some commonly used campsites in Segment 3 to be too close to an adjacent campsite to offer an opportunity for some solitude. In Segment 3, BLM's goal is to manage for a minimum distance of 175 feet between camps, except when camps are on opposite sides of the river. Campsites that did not meet this standard have not been closed but use of them is discouraged so that boating groups can have an expectation of privacy when camping on the river. In Segment 2, all campsites commonly used by boaters are sufficiently far apart from one another to provide adequate solitude, where the standard for minimum distance between camps is 300 feet, except when camps are on opposite sides of the river. (USDI Bureau of Land Management 2006a.)

During the Primary Boating Season, the number of overnight boating groups often exceeds the number of public land campsites, resulting in too few campsites to go around. If all preferred campsites are taken, boaters' campsite options include 1) sharing a campsite with another boating group, 2) camping on private property, or 3) pioneering a new campsite just to get through the night. During the Primary Boating Season, boaters worry about whether they will be able to find a place to camp, and commonly ask BLM launch site staff how many other groups have launched ahead of them. Once on the river, some boating groups regularly send one boat downriver early in the day to find and "save" a campsite for the rest of the group. Table 9 shows the number of days on which the number of overnight boating groups launching exceeded the standard of 9 per day for 2005-2008. Competition for campsites likely occurred on these days. The total number of boating groups by which the standard was exceeded for each year is also shown.

Table 9. Monitoring Data for Campsite Availability (2005 - 2008)

	2005	2006	2007	2008
Segment 2 - number of days exceeding standard of 9 launches	3 days	6 days	4 days	9 days
Segment 2 - total launches over standard for all days	14 launches	16 launches	13 launches	21 launches
Segment 3 - number of days exceeding standard of 19 launches	2 days	2 days	3 days	4 days

Segment 3 - total launches over standard for all days	14 launches	8 launches	15 launches	42 launches

The number of boating groups exceeds the number of suitable campsites most often on the first night of camping below popular launch points because the different groups have not had a chance to disperse along the river. After the first night, boating groups tend to disperse because the distance traveled per group per day varies with the number of days allotted for the trip, layover days, the amount of time spent fishing and, in Segment 3, varied take-out points.

During the Primary Boating Season, soils in commonly-used campsites are subject to frequent human activity, including multiple trips to carry gear between boats and the campsite, intensive use of a common core (kitchen) area, and of the network of pathways that typically now exist between the core area, tent sites, and the camp toilet location. Most river campsites support grasses, shrubs, and weed species, and soil disturbance from human activity is generally limited to commonly used trails, tent sites and core areas.

Vegetation loss has occurred in campsite core areas, resulting in bare soils, but most such effects to commonly-used John Day River campsites originated years ago. Extensive monitoring of boater campsites from 1998 to present, including tracking the extent of bare core areas from one year to the next, indicates that seasonal disturbance from boaters generally recovers over the months outside of the Primary Boating Season, and that the total square footage of soil disturbance in established campsites is stationary. Camping in groups that exceed the 16-person limit, sharing campsites with other groups, and pioneering new campsites can result in new vegetation loss, soil compaction, erosion and the introduction of non-native plant species.

Social and Economic Environment

This section describes the existing social and economic environment for recreational boating on the John Day River. Current social and economic conditions associated with boating provide a baseline with which to compare effects of potential changes in how such use is administered. The scope of quantitative socio-economic analysis is limited to four counties local to the river - Gilliam, Sherman, Wasco and Wheeler. However, a considerable number of John Day River boaters also come from Jefferson, Crook and Grant counties and elsewhere in Oregon as well as from adjacent states. Economic benefits

associated with John Day River boating may comprise a greater portion of the economy and personal attachments with the river may be most apparent in the four counties selected for in-depth analysis. But it is important to note that these benefits and values are also important to individuals and businesses across a wider region.

The role of boating recreation within the larger area must be considered while not masking localized effects within particular counties and communities. Information is thus presented at two geographic scales based on available data: 1) county and 2) census county subdivisions (CCD). Counties included are Gilliam, Sherman, Wasco and Wheeler. Census county subdivisions included are Antelope CCD (in Wasco County), Condon CCD (in Gilliam County), and Fossil CCD and Mitchell CCD (both in Wheeler County). Communities in the analysis area serve as gateways for boaters coming to the John Day River.

The analysis area includes communities and visitors that consider the John Day River to be an important part of their *sense of place*. Sense of Place is the concept used to examine the attachment people have with an area- what that place "means" to them. River recreation on the John Day has been a valuable part of the lifestyle of many local and non-local recreationists, some of whom have floated the river for decades. Over time, these river visitors have developed expectations regarding the quality of experience and setting that can be characterized by sense of place. Similarly, area residents consider the river an important backdrop to their lifestyles and consider it part of their community identity. Thus, the concept of sense of place is used to describe the current attachment that area residents and recreationists have with the river.

Economic effects of current boating use can be described in two ways. First, angler and boater expenditures in communities that serve as gateways to the river, such as Fossil and Condon, translate into jobs and income and contribute to local economic diversity and stability. Secondly, there is growing recognition that recreation also provides value to recreationists themselves (Loomis 2005). These benefits accrue to both local and non-local John Day River users and can be understood as "consumer surplus"- value in excess of actual expenditures incurred to float the river.

Given the presence of minority and low income groups in the analysis area, the potential for environmental justice effects is also discussed.

Population and demographic change

According to the US Census Bureau, the 4-county area population grew by 7 percent between 1970 and 2006. By comparison for this time period, population in Oregon and the nation grew by 75 and 45 percent, respectively (US Department of Commerce 2006). Gilliam, Sherman and Wheeler counties decreased in population by 24, 22, and 25 percent, respectively while Wasco County grew by 17 percent.

Employment and income

In 2006, Government, Agriculture, and Retail Trade were the largest employment sectors in the four-county analysis area (IMPLAN 2006). For a given industry, when percent employment in a region (four-county analysis area) is greater than another larger reference region (the state of Oregon), local employment specialization exists in that industry (USDA Forest Service 1998). Applying this criterion with 2006 data, the four-county analysis area can be characterized as specialized in the Health & Social Services, Government, Retail Trade, Grazing and Agriculture sectors (IMPLAN 2006).

There are three major sources of personal income: (1) labor earnings or income from the workplace, (2) investment income, or income received by individuals in the form of rent, dividends, or interest earnings, and (3) transfer payment income or income received as Social Security, retirement and disability income or Medicare and Medicaid payments. In 2006, labor earnings were the largest source of income, accounting for 53 percent of all income within the four-county analysis area. Investment income and transfer payments accounted for 23 and 24 percent, respectively. The Government, Health & Social Services and Retail Trade sectors were the largest sources of labor income in 2006. Applying the same criterion used above to examine employment specialization, the four-county analysis area can be characterized as specialized with respect to labor income in the Health & Social Services, Government, the Retail Trade, Grazing and Agriculture sectors (IMPLAN 2006).

Socio-economics of John Day River boating use

Outfitters and guides provide an opportunity for individuals without the necessary skill or equipment to enjoy the John Day River. Costs for these trips currently range from $98 to $398 per person, per day for fishing trips and from $106 to $191 for whitewater and scenic trips.

In 2008, John Day River outfitter-guides reported 2,685 commercial use-days including guides and customers in Segments 2 and 3 combined; 13% of total recorded boating use-days that year. About two-thirds of this commercial use took place in Segment 3, where 16% of total boating use was commercial, compared with 10% of total boating use in Segment 2. Commercial use on the John Day River has decreased since 1998, when 34 permitted outfitter-guides reported 3,615 use-days, making up 20% of total boating use at that time. During the same 11-year time period, non-commercial use of the river has increased.

Commercial and non-commercial boating use on Segments 2 and 3 increased by 50 percent (6,612 use-days) between 1998 and 2008. Use on both segments was lowest in 2001 (11,547 use-days) and highest in 2008 (19,968 use-days), suggesting that both commercial and non-commercial uses are steadily increasing (Table 1). Currently there no limits on number of launches or use-days for commercial or non-commercial trips and no fees are charged. A boating permit is required but commercial and non-commercial boaters alike are able to launch whenever they please.

Local economic effects of John Day River boating

On their way to the river, and once they arrive, non-local boaters spend money on goods and services they would spend elsewhere if these river recreation opportunities did not exist. In this manner recreation experiences on Segments 2 and 3 contribute to the local economy by attracting these visitors. John Day River boaters include both local residents and non-local visitors, but only non-locals bring new money into the local community. Thus, it is critical to distinguish between local and non-local spending. Local residents tend to substitute other local recreation activities or change the time or place for continuing the same activity rather than traveling long distances and incurring additional costs to do this same activity. For example, changes to the quality of experience on Segment 2 of the John Day River could feasibly cause local users to shift use to another segment or another nearby river.

A conservative estimate of total expenditures per user day for commercial trips (obtained from outfitters and guides operating on the John Day River) was distributed amongst expenditure categories (Table 10; Loomis 2005). BLM District office staff then reviewed this profile for non-commercial trips and made appropriate adjustments. The average expenditure per user day for commercial and non-commercial trips was estimated at $153 and $89, respectively. An input-output model was then used to estimate the total (direct, indirect and induced)

job and income (wages, profits, rents) contributions to the analysis area economy from current commercial and non-commercial use levels on the river.

Table 10. John Day River Boater Expenditure Categories

Camping on Public Lands
Equipment rental
Fishing License & Entrance Fees
Gas & oil
Grocery Stores
Guide fees
Hotel/motel
Shuttle Fees
Other (misc. supplies)
Rental Car
Restaurants
Supplies/fishing tackle/other retail

(Source: Loomis 2005.)

Results for commercial and non-commercial trips suggest that both user groups provide a substantial amount of employment and income to the local economy. Currently approximately 32 total jobs (full-time, temporary, and part-time) and $1.06 million in labor income are generated annually; about 5.2 of these jobs and $166,700 are attributable to commercial trips while about 26.8 jobs and $888,700 are supported by non-commercial trips. While total contributions from current use amount to less than one percent employment and labor income within the four-county analysis area economy, boating gateway communities may be more dependent on recreation related sectors supported by these uses.

Examining contributions to area employment and labor income by industry sector suggests some of the CCDs could be more dependent on industries where boater contributions are made. The largest employment and labor income contribution is provided in the Retail Trade sector where 20 jobs and $502,400 in labor income are provided to the four-county economy. The second largest contribution is made Accommodation & Food Services sector where 3 jobs and $51,827 in labor income are provided (IMPLAN 2006).

Employment by industry sector is available at the CCD level for the year 2000 and shows that several recreation-dependent industries are responsible for a large portion of employment in these smaller areas that contain boating gateway

communities. For example, the Retail Trade sector is responsible for at least 10 percent of employment in all CCDs examined. In addition, 18 percent of total employment in Antelope CCD occurs within the Accommodation and Food Services sector (US Department of Commerce 2000). This suggests recreation-related sectors in smaller gateway communities within the four-county analysis area could be more dependent on employment provided by John Day River recreation.

Value of river recreation experiences

Boater expenditures become income to outfitters, hotel owners, workers and ultimately the community, but these expenditures are costs to the recreationist not benefits or value from their experience. Recreation benefits that may accrue directly to river recreationists include greater physical and mental wellness, reduced stress, strengthened social bonds, and nature appreciation and learning. The BLM has recently increased its focus on the role of BLM and its partners in delivering such benefits (US Department of the Interior 2007).

Economists use "consumer surplus" to define the value of benefits that remain after monetary expenses are paid. In 2001-2002 BLM queried John Day River boaters on Segments 2 and 3 to assess existing social conditions and quantify boater preferences and opinions about potential management actions as part of the John Day River Study. This survey noted that 94% of respondents listed peace and solitude, viewing scenery and wildlife, getting together with friends and family and riverside camping as the most important reasons they boat the John Day River. Market transactions are associated with utilization of opportunities to run the river. But these transactions do not represent the entire value of the important recreation experiences and benefits that result.

Recognizing non-market or "consumer surplus" values of river recreation experiences is important, since without discussion these experiences may be undervalued and decisions affecting their quality may not accurately reflect their true value to society. Values for these unique recreational experiences and non-market values do exist, but quantifying them is not always feasible. However, this does not preclude their consideration. Despite the absence of quantitative information, consumer surplus values are discussed qualitatively in this section and other resource sections of the EA.

Sense of Place

Sense of Place is the concept used to examine the attachment people have with a particular place or setting. People can develop attachments to places where they

either live or recreate or both. Perception of their quality of experience helps define sense of place held by John Day River boaters. Comments received during scoping emphasized attachment to the river, appreciation for the river, attributes that make it a desirable trip, and benefits of the river recreation experience. These included:

> *"The JD truly is a gem of a river and leaves all of us who enjoy it with fond memories and a desire to return and experience it time and time again… we go primarily for the fishing but enjoy all it has to offer- nature, seclusion and abundant wildlife."*

Comments also indicated that the John Day River offers vastly different river recreation experiences, depending on time of launch and river flows. A wide variety of perceptions of crowding were also noted. Overall use is perceived to be increasing with more contact with other boaters and campsite effects. Given the importance of solitude and escape to the recreation experience, boater encounters are the indicators used to evaluate effects on sense place held by boaters.

Sense of Place held by area residents is also dependent on the level of recreation use on the John Day. Area residents benefit from employment provided by boating use and see the river as an important part of the backdrop to their everyday lives. As boating use increases some area residents could benefit while others could perceive changes to the quality of resource important to their sense of place. For example, further increases in boating use could reduce opportunities for solitude in the river corridor that local residents have come to appreciate through the years. Uncontrolled use is also perceived by area residents to create increased threat of wildland fire, litter and other resource damage.

Environmental Justice

Executive Order 12898 requires Federal agencies to "identify and address the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations" (Council on Environmental Quality 1997, p.3). According to the Council on Environmental Quality's (CEQ) Environmental Justice Guidelines for the National Environmental Policy Act (1997) "minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general

population or other appropriate unit of geographic analysis…..a minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above stated thresholds." (p. 25-26.)

The share of American Indian and Alaska natives in Sherman and Wasco counties (2.1 and 3.5 percent, respectively) was greater than the state (1.3 percent) in 2000. The share of those identifying with some other race and Hispanics were also greater in Wasco County (5.9 percent) than the state (4.2 percent) in 2000. The difference in shares between the counties and the state of Oregon is sometimes small, and may not be considered "meaningfully greater" as defined by the CEQ, but larger concentrations of these groups likely exist at smaller scales within each county. For example, within Antelope CCD the share of American Indian and Alaska Native population (3.9 percent) was slightly greater than its county and greater than the state (US Census Bureau 2000b). Thus, populations in analysis area can likely be defined as minority populations according to the CEQ's definition of minority populations. Given the likely presence of these populations, potential effects to these communities are relevant.

In addition to race, concentrations of people living under poverty level are of interest when considering Environmental Justice implications. The CEQ guidance on identifying low-income populations states "agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect" (Council on Environmental Quality 1997, p. 25-26). The share of the population living below poverty level was greater in Sherman, Wasco and Wheeler counties (14.6, 12.9 and 15.6 percent, respectively) than the state (11.6) in 1999 (US Department of Commerce 2000c). Thus, the Census data indicate that low income populations, as defined by CEQ, likely exist within the analysis area.

Wilderness

The newly-designated, 6,382-acre Spring Basin Wilderness area is located about six miles southeast of Clarno and is adjacent to Segment 3 of the John Day River from River Mile (RM) 113 to RM 119. Although most of the Spring Basin Wilderness is

outside the John Day Wild & Scenic River boundary, a small portion lies within the boundary.

Two-thirds of Segment 2 flows through BLM Wilderness Study Areas. The 7,609-acre North Pole Ridge Wilderness Study Area (WSA) is located north of Clarno. Further north along the mainstem are the Thirtymile WSA (7,538 acres) and the Lower John Day WSA (19,587 acres). Wilderness values identified for these three WSAs are naturalness, opportunities for solitude and primitive and unconfined recreation, critical anadromous fish habitat, Columbia River Basalt Formations, outstanding scenic qualities, cultural sites, a potential natural community of bluebunch wheatgrass, botany and wildlife.

BLM's 1991 Oregon Wilderness Report recommended to Congress that the North Pole Ridge WSA, Thirtymile WSA and Lower John Day WSA are suitable for Wilderness designation. The BLM is required to manage these WSAs so as not to impair their suitability as Wilderness until Congress decides whether or not to designate them. Naturalness and the opportunity for solitude and a primitive, unconfined recreation experience are maintained within WSAs (USDI Bureau of Land Management 2000, 1:138).

Wilderness values are most prevalent in Segment 2, where abundant public land, outstanding scenery, and limited road access create excellent opportunities for recreation in a primitive setting. The undeveloped, largely natural viewshed provides visitors with a sense of wildness. Since road and foot access is extremely limited, recreationists primarily access this remote segment by boat.

The Wilderness Act of 1964 gave legal definition to wilderness, but there is more to the concept of wilderness than this definition. Recreationists have various personal interpretations and may still value wilderness qualities of a place, even if that place is not specifically designated as Wilderness. Comments from visitors suggest that Segment 2 of the John Day River is one such place.

The BLM recently updated their wilderness character inventory for those public lands within Segments 2 and 3 which are not already designated as Wilderness or identified as WSAs. The inventory update found portions of 3 inventory units to possess wilderness character within Segments 2 and 3.

Cultural Resources and Values

Segments 2 and 3 of the John Day River include lands ceded to the U.S. Government in the Treaty of 1855 with the Tribes of Middle Oregon (Treaty), who now make up the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO). These lands were once occupied by the ancestors of the signatories of that Treaty. The Treaty provides for the perpetuation of traditional practices, which includes the continuation of traditional subsistence activities, such as the gathering of cultural plants, hunting, fishing and spiritual activities. The CTWSRO also are concerned with the protection of graves, burial grounds and historic properties (archaeological and above ground resources). Federal court decisions, federal legislation, secretarial and executive orders, and the BLM policy define continuing responsibility of federal land-managing agencies to honor the terms of treaties with Indian tribes and to protect their rights and interests. It has been noted by researchers (Ray et al. 1938, Steward 1939, Suphan 1974) that the John Day River was utilized by other Indian peoples as well, including the Confederated Tribes of the Umatilla Indian Reservation and the Burns Paiute.

Chapter 4 – Effects

This chapter describes effects that could be expected to result under the no action alternative and each of the action alternatives. The ORV for recreation, primarily the social environment for boaters (trip planning, access to the river, experiences on the river and in campsites) is the target of proposed actions, and is expected to be the main resource affected. An analysis of the effects of the proposed actions on commercial guide service operators and local economies is also included. No noteworthy effects on outstandingly remarkable scenery, wildlife, geological, archaeological, paleontological, historical, botanical or ecological values are anticipated.

Recreation

The BLM based their analysis of the effects of the alternatives on boating recreation on the assumptions listed below. In making these assumptions the BLM considered the professional experience of BLM river managers and field staff, boating use data collected from 1998 to 2008, and broadly accepted concepts from the fields of outdoor recreation research and management.

Assumptions

1. Based on boating use data collected from 1998 to 2008, if boater capacities are not prescribed, the number of boat trip launches during the Primary Boating Season is expected to continue to increase an average of 4% per year.

2. A boating group is expected to encounter 50% of all other boating groups launching on the same day in Segment 2, and 35% of all other groups launching on the same day in Segment 3. For example, estimated encounters on a day when 8 trips launch in Segment 2 would be 4 encounters per day.

Alternative 1: Boater Capacities Not Prescribed (No Action)

Under Alternative 1, boater capacities not prescribed, there would be no cap placed on the number of groups launching per day in Segments 2 and 3 and the number of launches would continue to increase in future years. Based on the highest number of daily launches recorded in recent years, the BLM estimates that launches for overnight trips on peak launch days in 2015 could exceed 22 per day in Segment 2, and 57 per day in Segment 3.

The quality of the boating experience available during the Primary Boating Season would continue to be adversely impacted by crowding and would decline further as use increases. Boaters would not be able to accurately predict boater turnout for a given date prior to arriving at the launch point and large disparities in launch numbers on different days would continue.

Difficulty finding a suitable campsite and competition for campsites would likely increase during the Primary Boating Season, because as boating use grows, boaters would be competing for campsites with additional groups launching from the same launch point on their launch date. Many boaters would continue to rush ahead in an attempt to claim a suitable campsite, especially for the first night's camp where campsite availability is the most limited. Based on 2008 launch numbers and available campsites the BLM estimates that over the course of the Primary Boating Season, 21 boating groups in Segment 2 and 42 groups in Segment 3 would not have been able to secure a suitable first night campsite that year, and these numbers could increase to 28 groups in Segment 2 and 55 groups in Segment 3 by 2015 under Alternative 1, if no capacities are set. The number of groups camping in unsuitable campsites, sharing suitable campsites with other groups, or camping on private land would increase as boating use continues to grow. Conflicts between boaters and private landowners over unauthorized use of campsites on private land would continue and likely increase.

Encounters per day with other boating groups during the Primary Boating Season would be expected to increase. The BLM estimates that if no action is taken, Segment 2 boaters could encounter 11 or more other boating groups per day by 2015, compared to an estimated 4.5 groups under Alternative 2, and 7 groups under Alternative 3. If no boater capacities are set and boating use continues to increase, the BLM estimates that, Segment 3 boaters could encounter 19 or more other boating groups per day in 2015, compared to an estimated 15 groups under Alternatives 2 and 3.

Under Alternative 1, access to the river for float trips would continue to be unlimited year-round, including during the Primary Boating Season. Boaters would continue to be authorized to launch their trip, no matter how many other trips were also launching on that day. No planning would be necessary to obtain a permit; boaters could continue to organize at trip on short notice and still be authorized to launch. Boaters would continue to be able to react quickly to changes in water flows, fishing conditions, or weather conditions when planning their trips. Commercial guides would be able to continue to schedule and

market trips without dealing with a limited permit system. All boating groups would be able to launch on their first-choice launch date. No boaters would be displaced to another day, another river segment or reach, or another river, because there would be no limit on the number of trips authorized to launch. No groups would be turned away regardless of how crowded the river became (provided they met the party size and equipment requirements).

Under Alternative 1, access to the river would not be limited but the quality of boating experiences once on the river would be lower for most boaters during the Primary Boating Season, compared to Alternatives 2 or 3. But some boaters such as bass anglers, for whom the option to react quickly and launch in response to optimum flows may be more important than experiencing uncrowded conditions, may prefer the unrestricted access available under Alternative 1.

Under Alternative 1, boaters wishing to launch on less busy days would not have the option to check a real-time launch calendar showing the number of permits already issued for a given day, as they would under Alternatives 2 and 3.

During the Primary Boating Season under Alternative 1, the BLM would not be able to meet the Desired Future Condition for a quality recreation experience as defined in WSRA, the John Day River Plan, the John Day River Study, and within Segment 2, BLM's management policy for WSAs. Continuing to not fully implement the John Day River Plan by not setting boater capacities may lead to effects to ORVs and non-compliance with the WSRA. The WSRA requires the BLM to state the kinds and amounts of public use the river area can sustain without impact to the values for which it was designated, including recreation. (47 Fed. Reg. at 39, 458-59.)

Continuing to manage Segment 2 for a *semi-primitive non-motorized (back county)* experience and Segment 3 for a *roaded natural (front county)* experience would facilitate the type of boating recreation experiences that the John Day River Study found to be most appropriate and consistent with public expectations for these river Segments. But under Alternative 1, actual conditions on the river would sometimes not be consistent with these setting descriptions, and the number of days during the Primary Boating Season when this occurs would increase over time.

Continuing to define camp-to-camp solitude standards as a minimum distance of 300 feet between campsites in Segment 2 and 175 feet between campsites in

Segment 3 would provide boaters with opportunities for privacy and solitude in camp that are consistent with the ROS and BBM setting descriptions for each river segment. But under Alternative 1, boaters would sometimes have to use campsites that do not meet these standards when the number of boater groups in a particular reach exceeds the number of suitable campsites in that reach, and the number of days during the Primary Boating Season when this occurs would increase over time.

The Oregon Department of Fish and Wildlife (ODFW) contacts John Day River anglers to promote awareness of, and compliance with fishing regulations, including bag limits and the benefits of "catch and release" fishing techniques intended to increase the average size of smallmouth bass and improve the quality of recreational fishing for this species. Under Alternative 1, on a peak use day, ODFW staff would be able to make contact with a smaller percentage of the total anglers on the river that day, compared to Alternatives 2 and 3. The ODFW expects that angler awareness of, and compliance with fishing regulations would be lower than under Alternatives 2 and 3, and that this could in turn result in continuing declines in the overall size of smallmouth bass, and the quality of fishing for this species. Effects on opportunities for salmon or steelhead fishing are expected to be negligible under any of the alternatives because such fishing normally occurs from September through November, which is outside of the proposed Primary Boating Season (initially May 20 - July 10). Current boating use levels from September through November are below the capacities recommended under the action alternatives, so no action is proposed at this time. BLM will continue to monitor use levels in the future.

Alternative 2: Boater Capacities Prescribed (Proposed Action)

Under Alternative 2, boater capacities prescribed, a cap would be placed on the number of launches per day during the Primary Boating Season at 9 launches in Segment 2, and 19 overnight launches plus 24 day use launches in Segment 3. "Record peak" launch days, in which 17 groups launched overnight trips in one day in Segment 2, would instead be capped at 9 launches per day under Alternative 2. In Segment 3, where as many as 42 groups launched overnight trips in one day, overnight launches would instead be capped at 19 per day under Alternative 2.

The quality of the boating experience available would improve due to fewer onriver encounters with other groups, reduced competition for campsites and fewer instances of campsite sharing by two or more groups, compared to Alternative 1, boater capacities not prescribed. Boaters could expect higher

quality boating experience on the river regardless of their launch date, even on weekends and holidays, because once the prescribed capacity for daily launches was reached, no further launch permits would be issued for that day. Boat launches would be distributed more evenly during the Primary Boating Season, and boating use levels would be more consistent and predictable.

Under Alternative 2, campsite availability would improve and competition for campsites would be reduced compared with Alternative 1. An unoccupied suitable first night campsite would be available to each overnight boating group, reducing the need to rush ahead to secure a campsite, share a campsite with others, or camp in an undesirable location when no suitable campsites are available. Under Alternative 2, a maximum of 9 boating groups would be able to choose from 14 suitable campsites located within 15 miles of Clarno, and a maximum of 19 boating groups would be able to choose from 32 suitable campsites located within 15 miles of Segment 3 launch points. Instances of boaters camping on private land would decrease because public land campsites would be available for the number of boating groups launching in any given reach of the river.

Under Alternative 2, encounters per day with other boating groups during the Primary Boating Season would be less than under Alternative 1. The BLM estimates that boaters could encounter up to 4.5 other groups per day in Segment 2, compared to 7 groups per day under Alternative 3, and 11 groups per day by 2015 under Alternative 1, if no action is taken. Under both Alternatives 2 and 3, the BLM estimates that boaters could encounter up to 15 other boating groups per day in Segment 3, compared to 19 groups per day by 2015 under Alternative 1.

Under Alternative 2, boaters wishing to launch during the Primary Boating Season would be required to obtain launch permits through the National Recreation Reservation Service (NRRS), primarily via the internet but also by phone if they so prefer. Launch permits would become available for reservation in phases aimed at making permits available for short, middle or long-range trip planning. Canceled launch permits would again be available for reservation. Boaters would not be allowed to launch without a permit, and would not be granted a permit if they arrive at the put-in without one and all permits for that day have been issued. It is expected that most boaters would use the internet to access the permit system, where they would also have access to online maps, trip planning information, regulations, and Leave-No-Trace camping practices.

The NRRS website would show, in real time, the number of permits that have been issued and those that remain available for any particular date. This would allow visitors to have more informed, detailed and accurate expectations regarding social conditions on the river (e.g. the number of other groups they are likely to encounter) and to adjust their launch date accordingly if they so choose, or if permits are unavailable for their first choice date. And boaters would be certain that no matter when they launch the number of groups sharing their launch date and segment would not exceed 70% of the number of suitable first night campsites.

Access to the river would be more difficult for boaters under Alternative 2 than under Alternative 1. Until they secured a permit, boaters would have reduced certainty of access to the river, especially during peak season weekends and holidays, when permits would be relatively more difficult to obtain due to high demand, compared to midweek and non-holiday periods.

Under Alternative 2, boaters would be more restricted in their ability to organize a trip on short notice than under Alternative 1. Alternative 2 would require boaters to plan farther ahead to obtain a permit and reduce their ability to plan spontaneously based on river flow, weather, fishing conditions, or other factors. This may affect bass anglers to a greater degree than boaters focused on other trip attributes such as scenery, whitewater or wildlife viewing which may be comparatively less dependent on specific flows. It is expected that the use of a phased-release system for reserving permits and the potential to acquire a canceled permit on short notice would help mitigate these issues. Boaters who could be flexible with launch dates and/or were willing and able to plan ahead would be expected to be able to secure a launch permit under Alternative 2. But boaters would lack the absolute certainty of access to the river that would be available if boater capacities were not prescribed. Some John Day River boaters may have to commit to a trip date farther in advance than they are accustomed to in response to information that river flow volumes are at their preferred levels, compared to Alternative 1. Again, a phased-release permit allocation system would help mitigate effects to these "last minute" planners.

Alternative 2 could potentially affect the ability of commercial guides to schedule and market trips. Until they obtained a launch permit for a given date, commercial guides would lack the absolute certainty they would have of being able to launch a trip under Alternative 1. However, less competition for campsites and fewer encounters on the river would make an improved and more predictable boating experience available during the Primary Boating Season

under Alternative 2, compared to Alternative 1. This in turn would enable commercial guides to market and provide a higher quality boating experience to their clients, compared to Alternative 1.

Alternative 2 would not include first night campsite reservations, and would thus allow boaters the option to select or change plans for their first night campsite while they are on the river in response to weather conditions, location of other groups, fishing conditions, equipment problems or other unforeseen circumstances. But boaters would be less certain of obtaining their preferred campsite than under Alternative 3, where first night campsites would be reserved in advance of the trip. Compared to Alternative 1, there would be considerably less competition among boating groups for first night campsites on peak use days under Alternative 2, but more competition than under Alternative 3. However, on subsequent nights (after the first night), there would be less competition for campsites under Alternative 2 because fewer groups would be on the river competing for campsites at one time than under Alternative 3.

Recreationists who might otherwise choose to recreate in a given area but either cannot or choose not to for some reason (e.g. use limits or crowding) are said to be *displaced*. Displacement occurs when visitors who might otherwise recreate in an area either do not visit on a particular day or stop using the area altogether (Manning 1999). Displaced visitors have the options of 1) visiting the same area at a different time, 2) visiting a different area, or 3) not engaging in the activity at all.

Under Alternative 2, the capacity for overnight boaters would be set at 9 groups per day on Segment 2 and 19 groups per day on Segment 3. In recent years, up to 17 overnight boating groups have launched in a single day on Segment 2, and up to 42 overnight boating groups on Segment 3, about twice the maximum numbers of boating group launches that would be prescribed under Alternative 2. Some boaters that would continue to be allowed to launch on these "record high" days under Alternative 1 would be displaced from launching on those days under Alternative 2 and would instead need to select a different launch date. Boaters who launch on days approaching records for peak use are not necessarily satisfied with their resulting experiences on the river because competition for campsites can be intense and contact with other boaters nearly constant when boater numbers approach these levels. Experience quality for boaters on these "record" use days did meet BLM standards, and boaters may have chosen not to go had they known in advance how crowded the river would

be. The potential for displacement of boaters under Alternative 2 (and Alternative 3) should be understood in this context.

Since peak use days only occur during brief periods of seasonal high use, it is more realistic to examine the potential for boater displacement over an entire boating season. Using launch numbers from 2008, the BLM estimates that over the course of an entire boating season 21 overnight boating groups could potentially be displaced from Segment 2 and 42 overnight boating groups could potentially be displaced from Segment 3 under Alternative 2.

Displaced boaters would have the option of choosing a different launch date, boating a different river segment, boating different reach (in Segment 3), boating on a different river, or not boating at all. The BLM assumes that most boaters would be willing and able to launch on a different launch date if they could not obtain a permit for their "first choice" date.

The BLM is putting in place Rules of Conduct and Leave-No-Trace camping requirements for public lands located within the John Day Wild & Scenic River Corridor in order to protect and enhance the river's Outstandingly Remarkable Values. The rules are listed in Chapter 2 under Alternative 2 and would also apply under Alternative 3. The purposes and effects of the rules are as follows:

- Requiring river users to follow all fire restrictions and prohibiting fireworks is consistent with rules already in effect for public lands in Oregon. (Federal Register Doc 05-16162, Final Supplemental Rules on Public Land in Oregon and Washington, c. 1-8, 2005.)

- Requiring river users to use a fire pan or fire blanket to protect the ground from scarring and ash and to remove all ash from the river corridor would help meet campsite cleanliness standards established by the John Day River Study, reduce the risk of escaped campfires by keeping fires small and contained, and protect the recreation ORV by maintaining campsites in a good condition for the enjoyment of all river users.

- Protecting standing wood, either dead or alive, from collection or damage, and instead encouraging boaters to bring wood or charcoal from home would help protect the recreation and scenery ORVs. Keeping trees in place and undamaged adds to scenic diversity in the river corridor and makes shade, wind protection and privacy screening available in campsites, adding to the enjoyment of all river users.

- Requiring all members of overnight boating groups to use a portable toilet and to carry the contents out of the river canyon would help keep campsites in a sanitary condition, protect water quality, meet BLM campsite cleanliness standards, and protect the recreation ORV by maintaining campsites in good condition for the enjoyment of all river users.

- Requiring the contents of river toilets to be disposed of in a facility developed and identified for that purpose, and not in BLM vault toilets, would help keep public toilet facilities at take-out points functioning and in a sanitary condition and operating properly for all river users.

- Requiring each boating group to register or acquire the required permit prior to launching would allow collection of boating use data and implementation of boater capacities as required by the John Day River Plan and the WSRA.

- Requiring boaters to comply with the terms and conditions of a required permit would provide for implementation and enforcement of permit regulations required by the John Day River Plan.

- Limiting the size of a boating group to 16 persons would help contain the size of river campsites at existing levels and keep the areas surrounding campsites in a natural condition and maintain the desired future conditions of a semi-primitive (back country) and roaded natural (front country) experience.

- Authorizing the BLM to temporarily or permanently close an area to boat launching or camping as necessary would provide a tool to help protect the river ORVs, and/or river resources including riparian areas, special status plant habitat, and important wildlife habitat.

Continuing to manage Segment 2 for a *semi-primitive non-motorized (back county)* experience and Segment 3 for a *roaded natural (front county)* experience would facilitate the type of boating recreation experiences that the John Day River Study found to be most appropriate and consistent with public expectations for these river Segments. Under Alternative 2, actual conditions on the river would remain consistent with these setting descriptions across the Primary Boating Season whereas under Alternative 1 they would not.

Continuing to define camp-to-camp solitude standards as a minimum distance of 300 feet between campsites in Segment 2 and 175 feet between campsites in Segment 3 would provide boaters with opportunities for privacy and solitude in camp that are consistent with the ROS and BBM setting descriptions for each river segment . Under Alternative 2, boaters would have access to campsites that meet these standards under nearly all foreseeable circumstances. In contrast, under Alternative 1 boaters might have to use campsites that do not meet these standards whenever the number of boater groups in a particular reach exceeds the number of suitable campsites in that reach, a fairly common occurrence that would increase over time.

Under Alternatives 2 and 3, boating and angler use would be spread more evenly across the season, allowing ODFW to contact a greater percentage of anglers on any given day to discuss fishing regulations, bag limits and the benefits of "catch and release". Over time, more efficient angler contacts could improve compliance with fishing regulations and result in increases to the average size of smallmouth bass in the John Day River, and thus increase the quality of recreational fishing.

Alternative 3: Boater Capacities Prescribed with Reserved First-Night Campsites

Under Alternative 3, boater capacities prescribed with reserved first night campsites, the number of launches per day during the Primary Boating Season would be capped at 14 launches in Segment 2, and 29 overnight launches in Segment 3, about 30% more overnight launches per day than Alternative 2.

Under both Alternatives 2 and 3, there would a maximum of 43 launches per day in Segment 3. However, Alternative 3 would allocate more launches to overnight trips (filling suitable first night campsites to 100% occupancy) and fewer launches to day use trips, compared to Alternative 2. Alternative 2 would allocate fewer Segment 3 launches to overnight trips (filling suitable first night campsites to 70% occupancy) and more launches to day use trips, compared to Alternative 3. Under Alternative 3, day use launches per day in Segment 3would be capped at 14, compared with 24 day use launches per day under Alternative 2.

Compared to "record peak" days, in which as many as 17 groups launched overnight trips in one day in Segment 2, use would instead be capped at 14 launches under Alternative 3. In Segment 3, where 42 groups have launched overnight trips in one day, there would instead be a cap of 29 overnight launches under Alternative 3. Under Alternative 3, filling suitable campsites located

within 15 miles of launch points to 100% occupancy would require boaters to reserve their first night campsite in advance.

Many potential effects of Alternative 2, boater capacities prescribed, would be similar under Alternative 3, such as improved and more predictable boating experience quality, reduced competition for campsites, and fewer onriver encounters with other groups when compared to Alternative 1. Some potential differences in effects between Alternatives 2 and 3 are noted below.

Compared to Alternative 1, boaters could expect a higher quality boating experience on the river under Alternative 3, regardless of their launch date, even on weekends and holidays, because once the prescribed capacity for daily launches was reached, no further launch permits would be issued for that day. Boating use levels from day to day would be more consistent and predictable.

Under Alternative 3, during the Primary Boating Season, overnight boaters would reserve their first night campsite at the same time they obtain their launch permit. Alternative 3 would facilitate full (100%) occupancy of all suitable campsites within 15 miles downstream of launch points during the Primary Boating Season. Compared to Alternative 2, this strategy would allow about 30% more boating groups to be accommodated, while still meeting standards for camp-to-camp solitude and encounters among boating groups.

Implementation of Alternative 3 would eliminate competition for first night campsites because each boater group would reserve a different campsite in advance and be required to use only that site. Competition for first night campsites would be most likely under Alternative 1, but could still occur under Alternative 2 if two or more groups had a preference for the same campsite. Under Alternative 3, each group would be certain that their first night campsite was available and would thus be under no pressure to hurry downriver to secure a preferred site early in the day before that site was "taken" by another group.

However, under Alternative 3, boaters would not have the flexibility to wait until they were on the river to select a first night campsite, or to adjust their plans for camp selection in response to changes in weather, fishing conditions or other factors that might arise during that day. This reduced flexibility that boaters would have in scheduling their first river day, or to adjust their plans in "real time" under Alternative 3 would reduce opportunities for unconfined recreation compared to Alternative 1, boater capacities not prescribed, or Alternative 2.

Under Alternative 3, boaters would not be allowed to "layover" (spend more than one night at a single campsite) at any campsite in the first 15 miles below launch points. The reason for this provision is that under Alternative 3, it is assumed that boaters would utilize all available overnight permits on some days during Primary Boating Season. All suitable first-night campsites would be reserved on those days. It is possible that every suitable first-night campsite could be reserved (by a different boater group each night) for several nights in a row. If a boater group stayed at a reserved campsite for two nights, that site would not be available to another group on the second night. In other words, since Alternative 3 assumes 100% occupancy of all suitable first-night campsites on any given day during the Primary Boating Season, layovers at any of these sites would have to be precluded for the system to work. Most boater groups do not layover during their trips, but about 10% do. Alternative 3 would reduce opportunities for unconfined recreation for groups who prefer to layover at their first campsite.

Successful implementation of Alternative 3 would hinge on ensuring that boaters were able to locate the campsites they reserve once they are on the river, and that they do not deviate from using these reserved sites, even when conditions (such as weather) or events (such as a mishap in a rapid) give them incentive to do so. Problems might also arise if a boater group inadvertently passed by the site they had reserved. To minimize the chances of this happening, Alternative 3 would require that numbered or named campsite markers be posted at campsites located within the first 15 miles of each launch point, large enough to be visible upstream of each site, to aid boaters in finding their reserved first night campsite. Alternative 3 would also require greater staffing, onriver BLM presence and costs to administer.

Under Alternative 3, encounters per day with other boating groups during the Primary Boating Season would be greater compared to Alternative 2 during times when all available permits have been reserved, because about 30% more boater groups would be launching on those days under Alternative 3. Under Alternative 3, the BLM estimates that Segment 2 boaters could encounter up to 7 other groups per day, compared to 4.5 groups per day under Alternative 2, and 11 groups per day by 2015 under Alternative 1. Under Alternative 3, the BLM estimates that boaters in Segment 3 could encounter up to 15 other groups per day under both Alternatives 2 and 3, compared with 19 groups per day by 2015 under Alternative 1.

Because boaters would be required to obtain a launch permit in advance through the NRRS, access to the river would be more difficult for boaters under Alternative 3 than under Alternative 1. Compared to Alterative 2, access to the river for *overnight* trips would be easier under Alternative 3 under which there would be 43 permits for overnight launches available compared with 28 permits under Alternative 2. But access to the river for *day use* trips in Segment 3 would be more difficult because there would be 24 permits available under Alternative 2 and only 14 permits available for day use trips under Alternative 3.

Similarly to Alternative 2, under Alternative 3 boaters would be more restricted in their ability to organize a trip on short notice in response to information that river flow volumes are at preferred levels, compared to Alternative 1. As under Alternative 2, this would affect bass anglers to a greater degree than other boaters. Also similarly to Alternative 2, a phased-release permit reservation system would help mitigate effects to this category of boaters by holding a subset of permits back until relatively close to actual launch dates and making canceled launch permits available on short notice. Since there would be more launch permits for overnight trips available under Alternative 3 than under Alternative 2, there would more overnight permits released close to the launch date in a phased-release system, and a slightly better chance of obtaining an overnight launch permit on short notice than in Alternative 2. However, because there would be fewer day use permits available under Alternative 3 than under Alternative 2, there would in turn be fewer day use permits released close to the launch date in a phased-release system, making a day use launch permits more difficult to obtain on short notice than under Alternative 2.

As under Alternative 2, Alternative 3 could potentially affect commercial guides' ability to schedule and market trips. The increased number of launches provided under Alternative 3 during the Primary Boating Season would allow commercial guides a somewhat better chance of securing a permit on any given day compared to Alternative 2. But guides would still have less certainty of obtaining a permit compared to Alternative 1, and would face the same constraints resulting from advance first night campsite reservations as non-commercial boaters. Lack of competition for first night campsites and fewer encounters would result in improved, more predictable recreation experiences on the river during Primary Boating Season that would enable commercial guides to offer higher quality experiences to their clients, compared to Alternative 1.

Under Alternative 3, all boating craft in each group would be required to stay together while traveling downriver. No craft in a boating group could be more than 15 minutes behind the lead boat. The assumption of this provision is that requiring all boats in a group to stay together would reduce onriver encounters among different groups. But this provision would also reduce opportunities for unconfined recreation. For example, boaters who are motivated primarily by smallmouth bass fishing often split their party up during the day, with individual boats going to different locations to fish and then regrouping later at camp. In another example, some members of a group may elect to stop and hike or visit attraction sites, while other boats in their party proceed downriver to camp earlier in the day. Alternative 3 would not allow the flexibility for boaters within a single group to tailor use of their time on the river each day in these different ways.

The same considerations regarding boater displacement discussed for Alternative 2 would apply under Alternative 3, except that there would be fewer overnight boater groups potentially displaced under Alternative 3. Using launch numbers from 2008, the BLM estimates that no overnight boating groups would be displaced from Segment 2 and that 13 groups could potentially be displaced from Segment 3 over the course of an entire boating season under Alternative 3. If use continues to increase at an average rate of 4% per year, the BLM estimates that in 2015, 9 overnight boating trips could potentially be displaced from Segment 2 and 17 overnight boating groups could potentially be displaced from Segment 3 under Alternative 3.

Under Alternative 3, the purposes and effects of the Rules of Conduct and Leave-No-Trace camping requirements for public lands located within the John Day Wild & Scenic River Corridor (listed in Chapter 2 under Alternative 2) would be the same as discussed for Alternative 2.

Continuing to manage Segment 2 for a *semi-primitive non-motorized (back county)* experience and Segment 3 for a *roaded natural (front county)* experience would facilitate the type of boating recreation experiences that the John Day River Study found to be most appropriate and consistent with public expectations for these river Segments. Under Alternative 3, actual conditions on the river would remain consistent with these setting descriptions across the Primary Boating Season whereas under Alternative 1 they would not.

Continuing to define camp-to-camp solitude standards as a minimum distance of 300 feet between campsites in Segment 2 and 175 feet between campsites in

Segment 3 would provide boaters with opportunities for privacy and solitude in camp that are consistent with the ROS and BBM setting descriptions for each river segment . Under Alternative 3, boaters would have access to campsites that meet these standards under nearly all foreseeable circumstances, and would be guaranteed a site that meets these standards on their first night of camping. In contrast, under Alternative 1 boaters might have to use campsites that do not meet these standards whenever the number of boater groups in a particular reach exceeds the number of suitable campsites in that reach, a fairly common occurrence that would increase over time.

The ODFW predicts that the effects of Alternative 3 on recreational smallmouth bass fishing would be similar to those described for Alternative 2. But to the degree that improved compliance with fishing regulations and potential improvements to the quality of recreational fishing occur, such benefits might occur more slowly or to a lesser degree under Alternative 3 because more anglers could potentially be on the river at a given time, making law enforcement contacts with individual anglers less likely.

Social and Economic Environment

Methodology for Analysis

This analysis of economic effects considers job and labor income in an economic impact analysis and also a qualitative discussion of non-market values as they relate to "consumer surplus." Non-market values are difficult to quantify. However, direction provided in the BLM Land Use Planning Handbook (USDI Bureau of Land Management 2005) suggests the use of benefit transfer to evaluate the effects on non-market values. These are important considerations alongside contributions to local jobs and income from changes in John Day River boating. If demand exists for such boating, employment and income would likely be supported in other locations if boating was hypothetically not provided on the John Day. Therefore it is important to consider non-market and social values associated with different use levels alongside potential job and income generation. In the absence of quantitative information for these values they are discussed qualitatively below and are described in other sections of the EA.

Economic effects are used to evaluate potential direct, indirect, and induced effects on the economy. The BLM conducts "input-output" analysis using IMPLAN Pro software (IMPLAN 2006) to estimate employment and income effects. Direct employment and labor income resulting from recreation

purchases first benefit employees and their families and therefore directly affect the local economy. Additional indirect and induced multiplier effects (ripple effects) are generated by the direct activities. Together, direct and multiplier effects comprise the total economic effects to the local economy. Effects of local river use are separated from those of non-local since expenditures by local residents do not introduce "new" money into the economy. If local residents could not recreate on the John Day River, they would likely find other forms of recreation in the area and continue to spend their recreation dollars in the local economy. Therefore, these portions of employment (and labor income below) are not necessarily dependent on the existence of opportunities provided by river recreation.

It is difficult to predict precisely how boaters would change their use as a result of the alternatives. However some reductions in visitation could result with boater capacity prescriptions under Alternatives 2 and 3. Estimates of displacement represent extreme cases since it is anticipated that a majority of boaters unable to launch on their preferred date would likely reschedule. Thus, estimates of recreation use days per alternative represent the maximum potential effect for any given year. Boater use days were calculated by multiplying the number of potential launches over target (relative to observed 2008 launch data) per alternative by the average number of user days per launch (18 user days on Segment 2 and 3). Table 11 gives the number of launches over target, user day estimates and employment and labor income effects.

An estimate of boater encounters is used to compare effects under Alternatives 2 and 3 on the sense of place held by recreationists. Encounters are defined as encounters per day with other boating groups outside of developed recreation sites and include encounters on the river, river to bank and bank to river (USDI Bureau of Land Management 2006a). To the degree that sense of place on the John Day River is associated with solitude, fewer encounters are preferred. Table 11 shows the number of estimated encounters per alternative for Segments 2 and 3.

Table 11. Potential Social and Economic Effects Compared by Alternative[1]

Alternative→ / Factor compared ↓	Alternative 1: Boater Capacities Not Prescribed (No Action)	Alternative 2: Boater Capacities Described (Preferred Action)	Alternative 3: Boater Capacities Described with Reserved First Night Campsites

Maximum displaced launches over capacity	0	63[2]	13[2]
Displaced use-days[3]	0	1,134	234
Employment - estimated number of jobs	32	30	31.6
Labor income (Change from Alt. 1)	$1,055,000	$991,000 (-$64,000)	$1,042,000 (-$13,000)
Encounters per day - Segment 2	8.5 in 2008 11.5 in 2015	4.5	7
Encounters per day - Segment 3	15 in 2008 20 in 2015	15	15

[1] Based on 2008 data for boat trip launches and use-days
[2] Estimate of boating groups unable to obtain a permit for their first choice launch date in 2008.
[3] A boater use-day equals one boater on the river for one day. Estimate is based on average number of use-days per launch.

Economic effects in the planning area

Estimated employment and labor income response coefficients for commercial and non-commercial boating use specify the number of full and part-time jobs and dollars of labor income generated per thousand boater use days. The response coefficients are useful in: 1) understanding economic effects tied to a given use level; 2) understanding projected employment effects for various use scenarios (sensitivity analysis); and 3) understanding differences in employment and labor income effects by commercial and non-commercial boating group (per 1,000 boater use days). For commercial use 2.23 jobs and $73,021 in income are generated per 1,000 boater use days while 1.67 jobs and $55,325 in income are generated per 1,000 boater use days for non-commercial trips. These response coefficients are unique to the analysis area discussed in Chapter 3. It is important to remember that while response coefficients are greater for commercial boating, the overall economic impact of John Day River boating in the planning area is a function of the numbers of both commercial and non-commercial boaters.

Response coefficients for commercial and non-commercial use indicate non-commercial use generates lower employment and labor income effects per 1,000 use days. This is because non-commercial users spend less per visit compared to users on commercial trips. The response coefficients and user days in Table 11 were used to estimate economic effects. Under all alternatives, employment and income generated from boating use on Segments 2 and 3 of the John Day River make up less than one percent of total employment and labor income in the analysis area. These estimates indicate that while boating use contributes to the

sense of place, lifestyles, and customs of many local residents and visitors, actual economic contributions to the analysis area are quite small. However, as discussed in Chapter 3, boating gateway communities may be more dependent on recreation related sectors supported by boating use.

Alternative 1: Boater Capacities Not Prescribed (No Action)

Under Alternative 1, the number of permits to launch would not be limited and campsite reservations would not be required. Boater use could remain around current levels of 19,968 user days on Segments 2 and 3, and could continue to increase in the future.

Table 11 displays the estimated employment and labor income contribution from current use that would continue under Alternative 1. Approximately 32 jobs (direct, indirect and induced, full-time, temporary, and part-time) and $1.06 million in labor income (direct, indirect and induced) would continue to be supported on an annual basis under Alternative 1.

While the effects of these boater expenditures are important they represent costs to the recreationist not benefits or value from their experience. As discussed above, value from recreation benefits called consumer surplus remains after expenses are paid. These benefits include greater physical and mental wellness, reduced stress, strengthened social bonds, and nature appreciation and learning. However public comments reported evidence of crowding and overuse by boaters, such as lack of available campsites and high numbers of contacts with other boating groups. Consumer surplus values would continue to accrue to boaters, but crowding and its associated effects would decrease these river recreation values under Alternative 1, compared to Alternative 2 or 3.

Perceptions of river resource quality and recreation experiences define sense of place held by area residents and boaters. Comments emphasized attachment to and appreciation for the river. A wide variety of perceptions of crowding were also noted. Thus, boater encounters are the indicators used to evaluate effects on sense place held by recreationists given the importance of solitude and escape to the recreation experience. Encounters among boating groups could continue to increase as part of future anticipated increases in use under Alternative 1. Consequently, perceptions of increases in use would further degrade sense of place held by recreationists. While economic contributions would continue to maintain sense of place for some area residents dependent on these jobs and income, the sense of place of other area residents would deteriorate with

perceived threat of reduced opportunities for solitude, resource damage, trespass and increased wildfire danger from increases in use.

Alternative 2: Boater Capacities Prescribed (Proposed Action)

Under Alternative 2, boater capacities for launches per day would be set at 9 on Segment 2 and 19 overnight launches and 24 day use launches on Segment 3. It is difficult to predict how boaters would change their use in response, but small reductions in visitation could result. Estimates here represent maximum potential displacement based on 2008 use levels. In practice, most boaters who are unable to obtain a permit for their preferred launch date are expected to simply reschedule to a different date. But if all boaters unable to obtain their preferred launch date did not reschedule, approximately 1,134 fewer use days would occur (Table 11). As familiarity with the system for scheduling and distributing permits grows, monitoring and consequent refinements could better accommodate boater demand patterns and displacement effects would be expected to decrease.

Under Alternative 2, permits for both commercial and non-commercial boater permits would be drawn from a common pool of available launch opportunities. Commercial and non-commercial users would compete for the same launch permits except for dates when the number of permits available was sufficient to meet all demand. As discussed above, the shares of commercial and non-commercial boaters have, respectively, decreased and increased since 2001. Whittaker and Shelby (2008) note that common pool may benefit all outfitters if the percentage of commercial boaters increases over time. The same is true for non-commercial use- if a larger proportion of launch opportunities are utilized by non-commercial users then less would be available for commercial boaters. If the share of non-commercial use continues to increase, this could lead to missed business opportunities for some outfitters and decreases in availability of recreation experiences for those dependent on commercially provided trips.

Table 11 displays the estimated employment and labor income effect from boater use under Alternative 2. In general, the estimated economic effects are a function of the number of displaced user days and dollars that would have been spent by visitors. At least 30 jobs (direct, indirect and induced, full-time, temporary, and part-time) and $991,000 in labor income (direct, indirect and induced) would continue to be supported on an annual basis under this alternative (IMPLAN 2006). While contributions are less than Alternative 1, these changes represent maximum potential displacement if all users were unable to launch on their preferred date and did not reschedule. Thus, under this "maximum potential"

scenario less than two jobs and approximately $64,000 in labor income would be lost (Table 11).

The effects of these boater expenditures are important but they represent costs to the boater not benefits or value from their experience. Consumer surplus values such as greater physical and mental wellness, reduced stress, strengthened social bonds, and nature appreciation and learning, threatened by crowding and overuse would be alleviated by limits on launches under this alternative. Availability of campsites would improve and without a campsite reservation system the option to choose first-night sites while on the river would remain. However, boaters would continue to compete for some campsites. Thus, despite theoretical and small changes in employment and income, consumer surplus values associated with the value of the river recreation experience could increase under Alternative 2 relative to the No Action Alternative.

Perceptions of river resource quality and the recreation experience define sense of place held by area residents and boaters. The BLM estimates that boaters could encounter 4.5 other boating groups per day along Segment 2 and 15 groups on average along Segment 3 under Alternative 2. Consequently, boater perceptions of crowding and campsite effects would improve relative to currently held perceptions. While a small and unlikely decrease in economic contributions could decrease quality of life for some area residents, the sense of place of other area residents (and by repeat visiting boaters who have developed a sense of attachment to the John Day River) could improve with less perceived threat of resource damage and improvements to the quality of recreation experiences.

Alternative 3: Boater Capacities Prescribed with Reserved First-Night Campsites

Under Alternative 3, visitor capacities for launches per day would be set at 14 on Segment 2. On Segment 3 capacities would be set at and 29 overnight launches and 14 day use launches. It is difficult to predict precisely how boaters would change their use as a result of the limits on launches, but small reductions in visitation could result. Estimates here represent maximum potential displacement based on use during the 2008 season. If all users unable to obtain their preferred launch date did not reschedule, approximately 234 fewer use days would occur (Table 11). With phased release of permits, monitoring and consequent adjustments to the limited-entry system, scheduling would accommodate user patterns and effects would decrease.

Table 11 displays economic effects from boater use under Alternative 3, estimated using the response coefficients along with user days. In general, estimated economic effects are a function of the number of displaced user days and the dollars that would have been spent by visitors. At least 31.6 jobs (direct, indirect and induced, full-time, temporary, and part-time) and $1.04 million in labor income (direct, indirect and induced) would continue to be supported annually under Alternative 3 (IMPLAN 2006). Contributions are fewer than under Alternative 1, but these changes represent maximum potential displacement if all users were unable to select their preferred launch date and did not reschedule. Under this maximum potential scenario, less than one job would be lost, representing approximately $13,000 in labor income (Table 11).

As discussed under Alternative 2, employment and labor income effects of these boater expenditures are important but they represent costs to boaters not benefits or value from their experience, which may exceed their actual expenditure. Effects on consumer surplus values would be similar to those discussed under Alternative 2 although the first-night campsite reservation system under Alternative 3 would further alleviate perceptions of a lack of available first-night campsites. Boaters would have less flexibility in campsite selection and use of their first day on the river, and would likely encounter more other boating groups, but the reservation system would add an additional degree of predictability to their trip that might increase the value of the experience for some visitors.

The BLM estimates that under Alternative 3, boaters could encounter 7 other groups per day along Segment 2 and 15 groups on average along Segment 3. Consequently, boater perceptions of crowding would improve relative to currently held perceptions based on current encounters but would not see the level of improvement afforded under Alternative 2. Similarly to Alternative 2, the sense of place of area residents and others who have developed a sense of attachment to the John Day River could improve under Alternative 3, but these improvements could be slightly less than under Alternative 2.

Environmental Justice

While minority and low-income populations may exist in the area, no alternative is expected to have disproportionately high and adverse human health or environmental effects on these communities. No alternative would restrict or alter existing opportunities for subsistence hunting and fishing. Tribal interests and subsistence, traditional and cultural uses were considered under all alternatives.

Wilderness

Either action alternative would better protect wilderness values in WSAs than the no action alternative. Either action alternative would reduce the number of river parties traveling down the river concurrently, and reduce instances of two or more parties camping in close proximity to each other or at the same site. Thus, compared to the no action alternative, the action alternatives would be expected to result in some improvements in the opportunity for solitude.

In Segment 2, where two-thirds of the river segment flows through WSAs, Alternative 2 would best maintain the wilderness values of solitude and a primitive, unconfined recreation experience consistent with WSA management. In Alternative 2, managing for a boating encounter rate of 4.5 encounters per day would help maintain the opportunity for solitude by meeting the encounter standard for a *semi-primitive* (Recreation Opportunity Spectrum) or *back country* (Benefits Based Management) setting of no more than 6 encounters per day on most days. In Alternative 3, managing for a boating encounter rate of 7 encounters per day would exceed the encounter standard for a *semi-primitive* recreation setting and provide a less consistent and reliable opportunity for solitude than Alternative 2. The opportunity for a primitive, unconfined recreation experience would best be maintained by Alternative 2 because boaters would have the opportunity once on the river to make decisions about first night campsites and rate of travel, with fewer on-river restrictions than Alternative 3. Under Alternative 2, boaters would not be restricted to camp in a reserved first night campsite and would have no restrictions on lay-over days, as would be required under Alternative 3.

The first night campsite reservation system stipulated in Alternative 3 would also require that numbered or named campsite markers be posted at campsites located within the first 15 miles of each launch point, large enough to be visible upstream of each site, to aid boaters in finding their reserved first night campsite. None of the signs would be located within Wilderness or WSAs but visible management signs in Segment 2 would diminish the perception of being away from it all and could decrease the satisfaction gained from participating in an activity where self-reliance is valued.

Although BLM is not mandated to manage for wilderness values outside of Wilderness and WSAs, the objective for managing the boating experience in Segment 3 includes providing boaters with some opportunities to find solitude. Both action alternatives would protect opportunities for solitude in Segment 3

equally because boating encounters per day under both alternatives are estimated to peak at 15 encounters per day which meets the encounter standard for a *roaded natural* (Recreation Opportunity Spectrum) or *front country* (Benefits Based Management) setting. Under Alternative 1, with no boater capacities prescribed, boating encounters per day would be expected to exceed 15 encounters per day on peak use days.

Cumulative Effects

In spring of 2010, Oregon Parks and Recreation Department (OPRD) initiated interagency planning for Cottonwood Canyon State Park, comprised of lands formerly encompassed by the Murtha Ranch near Wasco, Oregon. Located about a two-hour drive from the city of Portland via Interstate 80, the 8000-acre state park will be Oregon's second largest when it opens in 2013. OPRD estimates park visitation rates will be close to 100,000 visits per year.

Of the park's 16 miles of John Day River frontage, the upper 5 miles lie within Segment 2. As defined by NEPA, "reasonably foreseeable" cumulative effects for actions described in this EA include the potential for development, visitation, and publicity associated with the new State Park to change the boater's experience along the lower 5-mile reach of Segment 2, and to stimulate additional interest in boating the John Day River.

Cottonwood Canyon State Park is expected to remain largely primitive. Development- which could include low-impact campsites along the river for boaters, hikers and bikers, new trails, and car camping sites and rustic cabins near the highway access- would occur over a period of many years (Richard 2010). Most if not all development would likely take place in Segment 1, downstream of Cottonwood Bridge. Under foreseeable park development and management, it is likely that boaters on Segment 2 would begin to encounter increasing numbers of non-motorized recreationists such as hikers and anglers along the river starting about 5 miles above Cottonwood Bridge. Also, it is likely that new park visitors would learn of other recreation opportunities available on the John Day River, including camping, fishing and boating, especially if they actually see boaters. Some of these visitors would likely become future John Day River boaters themselves, further increasing demand for boating opportunities and access.

In a series of public meetings, OPRD staff is: 1) introducing the park property's natural, cultural, historic and scenic values; 2) discussing ways to protect its wild setting and natural resources, and 3) engaging in dialogue about the park's potential for recreation, interpretive and educational uses. Meetings through spring 2011 will lead to development of a master plan for managing the park. The master plan will then be submitted to the Oregon State Parks and Recreation Commission for approval. (OPRD 2010.) The new State Park lands are intermingled with BLM lands. Management of BLM lands within the Wild & Scenic River corridor are directed by the 2001 River Plan. The River Plan was developed by the John Day Interagency Planning Team, of which OPRD is an active member. Implementation of the River Plan is accomplished in coordination with the interagency team. OPRD is coordinating with other managing agencies, including the BLM, in developing the master plan. Planning for the park is currently underway but detailed analysis is not yet available.

The population in the four-county analysis area is projected to increase by 6 percent between 2005-2020 while the statewide population could increase by 20 percent (Portland State University 2004), suggesting commercial and non-commercial boating demand may continue to rise. Population increases in areas where considerable numbers of boaters come from (i.e. Portland and Seattle) may also stimulate boating demand. Clackamas, Multnomah and Washington county populations are projected to increase by 22 percent between 2005 and 2020 (Portland State University 2004). A similar increase is expected in the Seattle metro area. Under either action alternative, there would be finite supply of John Day River boating opportunities during the Primary Boating Season, so local and regional population increases could result in a greater amount of unmet demand for boating opportunities over time.

The role boating plays locally may increase along with the population since boating sustains area well-being in John Day River gateway communities. None of the alternatives would alter the regional trends or population changes outlined above but the action alternatives would better sustain the quality of recreation opportunities and experiences, and sense of place for most residents in the planning area and most visitors to the area.

Chapter 5 – Tribes, individuals, organizations and agencies consulted

A representative for The Confederated Tribes of Warm Springs cooperated closely with BLM staff during both the John Day River Study (USDI Bureau of Land Management 2006a) and preparation of this Environmental Assessment.

A member of Oregon Department of Fish and Wildlife participated in initial scoping meetings for this EA, reviewed earlier drafts and provided additional input on the smallmouth bass fishery and wildlife values.

The CORE Team was briefed on progress on two occasions.

Review and input were also provided by the BLM Oregon State Office Recreation and Rivers Specialist, and NEPA and Environmental Planning Specialist.

Chapter 6 – List of preparers

Prineville BLM

Homer F "Chip" Faver	Field Manager, Central Oregon Resource Area
Heidi Mottl	Recreation Planner
Tom Mottl	Recreation Planner
Patrick Kollodge	River Ranger
Teal Purrington	Planning & Environmental Coordinator
John Zancanella	Archaeologist
Jeff Moss	Fish Biologist
Monte Kuk	Wildlife Biologist
JoAnne Armson	Botanist

Others

Brian Cunninghame	Confederated Tribes of Warm Springs
Jeff Neal	Oregon Department of Fish & Wildlife

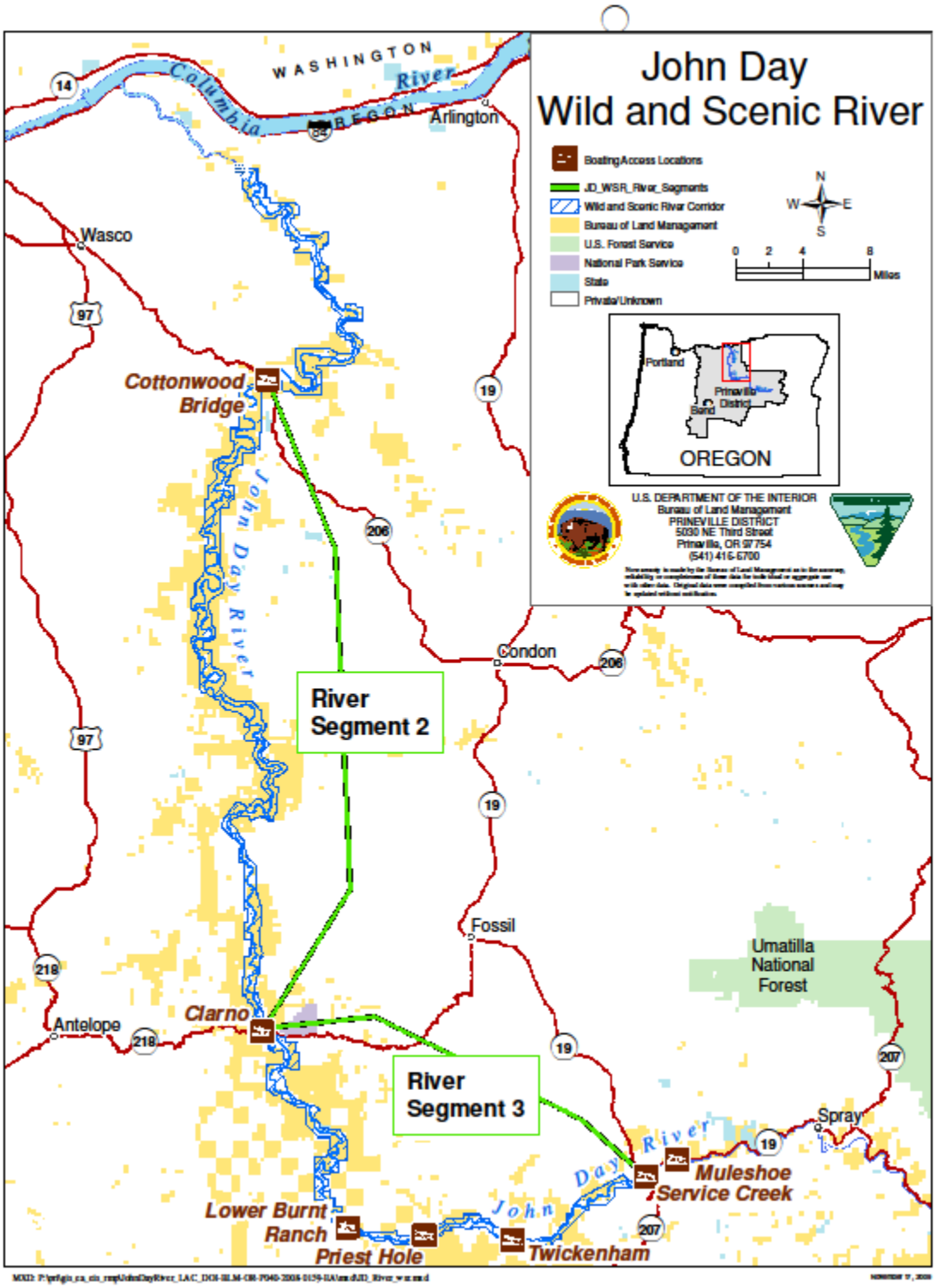
Contractors

Jeff Behan	Recreation Planner and Writer/Editor
Henry Eichmann	Economist, USFS TEAMS

Reviewers

Cathi Bailey	BLM Salem Office
Maggie Langlas	BLM Salem Office

Appendix A: Map of Planning Area



Appendix B: Summary of Scoping Comments

Summary of Public Comments
On the John Day River Study

August 6, 2009

This document summarizes comments received regarding the John Day River Study. Out of 29 comments received, 4 simply expressed a desire to stay on the mailing list without further comment. The remaining substantive comments were quoted directly or paraphrased, then grouped according to these topics:

- **Expressions of attachment to and appreciation for the river, attributes that make it a desirable trip, benefits of river recreation experience**
- **Comments about access fees and/or limited entry permit system**
- **Comments about commercial and private river use allocation**
- **Comments about the river recreation experience and river management**
- **Cattle grazing effects on campsites and overall recreation experience**
- **Comments on the John Day River Study process**

Some comments did not fit neatly into a single topic but rather addressed two or more topics. Thus, some comment text may appear more than one time in this document.

Expressions of attachment to the river, appreciation for the river, attributes that make it a desirable trip, benefits of the river recreation experience

"This river is a real treasure."

"It's a wonderful river."

We make this trip a perennial event because of the solitude and peace that surrounds us while on the John Day.

"The JD truly is a gem of a river and leaves all of us who enjoy it with fond memories and a desire to return and experience it time and time again… we go primarily for the fishing but enjoy all it has to offer- nature, seclusion and abundant wildlife."

"The John Day is appealing for so many reasons. It is a Wild & Scenic River first and foremost. The amount of wildlife, extreme temperature scales, pristine water condition, amazing scenery and the small-mouth bass fishing is a heavenly experience. I would very much like to see the beautiful John Day River stay a Wild & Scenic River for generations to come. Many boaters respect and enjoy the serenity that the John Day has come to offer…an incredible piece of Mother Nature."

"The first trip was fantastic. We saw more wildlife than people. We had our pick of the campsites and saw a total of FIVE bands of bighorn sheep."

"As a person who has boated the John Day for the last ten years, I appreciate the effort that is being made to ensure the river and its adjacent lands are being protected."

I've floated the Service Creek-Clarno section of the John Day several times. It is a great experience. The John Day is a special river and deserves to be conserved for use of future generations.

"I love that river and hope we can preserve it."

Comments specific to access fees and/or limited entry system
Wide but not universal support for some type of access limitation during peak use times. General acknowledgement that controls on access are needed despite potential effects on access and freedom in trip planning. Support for permit system/fees depends on how regulation would affect access to the river and trip planning flexibility. Some commenters would support a user fee, but not a limited entry permit system. Some opposition to any restriction on river access.

"It is obvious that effects on the river will be greater as the regional population increases. While I understand that there are problems with a system which limits river use through permits, I'd much rather have to deal these problems than see the John Day experience the abuse that other western rivers are experiencing."

I favor requiring permits and restricting the number of people on the river. This would at least give small groups who have made the John Day a part of their summer a chance to enjoy the river as [they] have in prior years.

"I support going to a complete permit system for the John Day River."

As an annual guest to the John Day, I have never seen more boats than I did this year (2008). Unfortunately, I think it has come to the point of making the river available only by permit. I hope my support helps you in your decision.

As a 10-year repeat visitor, I enjoy the amount of wildlife, extreme temperature scales, pristine water condition, serenity, amazing scenery and the small-mouth bass fishing- it's a heavenly experience. The John Day is a Wild & Scenic River first and foremost, hope it stays that way. I would humbly request some type of limitation on the total number of humans allowed to float this incredible piece of Mother Nature.

Based upon the volume of trash, the human waste that was not carried out, the over pressure on the fishing and the obvious impact that so many humans have on the Wild & Scenic River, I would say that some type of permitting and/or limitation should be immediately enforced upon the John Day River. The April-August timeframe would be most impacted by the influx of visitors."

I'm a recreational user of the John Day River and support any effort to limit the number of boaters. I've traditionally run an annual trip with family and friends in late May or early June. I support a permitting system for the river with one caveat: keep it affordable! With fuel and shuttle fees, I usually spend well over $300 before I'm even on the river. I'd simply request that the fees remain reasonable and affordable and per boat, not per person.

"A lottery system or first come first served system would be fine…I understand we have to [have] boater permits. I'm part owner of the BLM lands (as are all US citizens) and I should not have to pay a guide to use them. Free access to public lands (and rivers) should be a right of citizenship.

One way to limit use is cost barriers, i.e. fees. But this segregates based on ones' financial or social status. Lower income people cannot enjoy the river.

Lottery system or permit systems are being used on other rivers. Instead of a first-come-first-get permits system, would suggest something similar to that used by [ODFW] to limit hunter numbers in certain areas- where "preference points" are issued to users that do not receive his/her first choice. Accumulating preference points increases that person's likelihood of winning a draw [launch date] in the future. [More details in commenter's letter.]

Since John Day River usage is largely flow/level-dependent, there would probably be an immediate decline in usage just by introducing a lottery system since many would not want to expend resources planning a trip when they do not know what the water level would be at that time. Others would happily accept the given conditions.

Another option is first-come-first-serve with patrols at boat put-ins to limit daily numbers based on calculations of user nights spent on that segment of river. Need to calculate each river segment capacity to hold given number of

overnighters; that number would determine how many boaters would be allowed to launch each day. Introducing this system would also result in a decline in users as many would not plan a trip with uncertainty about even getting on the river.

"Probably the best way is a first-come-first-served sign up date for private boaters. Start on Jan 15 and take reservations based upon the number of available campsites."

"We go primarily for the fishing…& closely monitor river flows to go when conditions are not cloudy- (bad fishing) usually don't plan more than 1-2 weeks in advance…would feel constrained if not able to do this…would prefer not to see a permit allotment especially if it will require floating on set days that are determined well in advance of a planned trip. River use fee would be preferable."

Over past 10 years there is more debris in the river and in camps. Limiting the number of users on popular weekends might be necessary to control the overuse.

"I would be receptive to paying a reasonable fee to float the river…if these dollars could be dedicated to river patrol activities.

I strongly oppose a limited entry permit system on this river for the general public. The window to float this river is very narrow. A permit system would greatly reduce a person's flexibility to float the river during the best time. If a permit system is needed, this restriction should be imposed on the river guide community. You might also consider showing priority for Oregon guides vs. those from other states (fishing guides from Idaho were on the river in 2008).

Safety should also be a concern. If a permit system is imposed during specific dates and someone doesn't draw a permit but then chooses to float in low water, hazards increase. I feel more people would attempt low water floats if they can't get the permit for the time they wanted. Risks of injury increase greatly when you have to get out of your boat.

I'm opposed to a permit system unless it is specific to water flows. Setting a time period from, say, Memorial Day to the 4th of July wouldn't work every year. Many years the water level if too low by early or mid-June for the Clarno-Cottonwood reach.

"I strongly oppose the use of access fees and/or limited entry permit system on the John Day. I believe boaters will alter their usage behaviors (the dates and/or days of the week) if they feel their experience is diminished by overcrowding."

I'm against a lottery/permit system during periods that are not peak use. Suggests peak use is May 15-July 5th.

"I have mixed feelings about a permit system. I do feel that the current system of requiring a voluntary permit is basically a waste of time. Evidence at the campsites strongly suggests that few are using WAG bags or other means to remove human waste.

[On the other hand] we want to maintain the flexibility of doing the low water floats without needing a permit…..we feel that a permit system will likely put people on the river at low water levels that are not prepared for physical work necessary to get the boats down the river."

I don't want to lose the ability and flexibility of making our low water trips. The past 10 years we've done low water trips from Clarno to Cottonwood. We monitor the river level and make our decision to go at the last minute. The lowest level we've launched was 300cfs- really too low but we still enjoyed the trip.

The BLM is doing a good job taking care of the river. I appreciate the work BLM does. It would be OK to charge a small fee to help pay the costs of taking care of the river - say $1 or $2 per day.

"I spend some time on the John Day and can see no need for your Deschutes-like tactics there. My guess is that your interest in all of this is more money for the BLM. More guide permits, more paid boater passes, scat machines, limited entry. I sincerely hope your motives are honest here because I can see no reason for you to do anything in this particular stretch of river. There is ample camping, an absence of litter, and it is a peaceful setting. There is no water in this river between July and November, so what's the issue."

Comments about commercial and non-commercial river use allocation
These comments are germane to adoption of a common-pool use allocation system. All comments appear to be from the perspective of non-commercial boaters.

"I suggest giving no preference to guides that run the river. Everyone should have equal access to run the river."

"If a permit system is needed, this restriction should be imposed on the river guide community. You might also consider showing priority for Oregon outfitter-guides vs. those from other states (fishing outfitter-guides from Idaho were on the river in 2008)."

"My concern is with guides. On the Rogue, guides lock up way too many of the river trips, leaving too few for ordinary people."

"As with all our rivers over usage can harm the river and local habitat. I would favor permit usage as long as it was given to individuals or groups and not companies running river trips. They would need to apply the same as all the others."

2008 was my 12th consecutive year floating the John Day River. Your review could not come at a better time….I have not seen as many boats and people on the river in prior years as I did this year. Oregon Whitewater Adventures (Springfield OR) had two parties of 16 people each floating down the river together. That is a lot of pressure on limited campsites.

"Limit the number of guides. One of the biggest problems with guides is that they will send a boat downstream early in the day with the sole intent of staking claim to the next best campsite."

"Let's just not turn the John Day into a commercial enterprise by giving too much space to guide services.""

My guess is that your interest in all of this is more money for the BLM. More guide permits, more paid boater passes, scat machines, limited entry.

Main goal of doing low water trips is to eliminate competition with guides and large groups for available campsites.

Guides need to be treated just the same as the general public.

Comments about the river recreation experience and river management
If one theme emerges, it is that the John Day River offers vastly different river recreation experiences, depending on time of launch and river flows.

Comments reflect wide variation in perceptions of crowding, likely based on visiting at different times of year or day of week. Overall, use is perceived as increasing, more onriver contacts and campsite effects. Several comments that 2008 seemed especially busy and crowded. Demand for access is very flow dependent. Boaters value the ability to access the river on fairly short notice when conditions are "good". Ideal flows for fishing are lower than for general floating and whitewater. Perceptions of campsite effects due to overuse by boaters, but also from cattle.

"As a person who has boated the John Day for the last ten years, I appreciate the effort that is being made to ensure the river and its adjacent lands are being protected. During my most recent trip down the river with my two young sons, I couldn't help but wonder what the river will look like when they're grown. It is obvious that effects on the river will be greater as the regional population increases. While I understand that there are problems with a system which limits river use through permits, I'd much rather have to deal these problems than see the John Day experience the abuse that other western rivers are experiencing."

The river valley is unable to support large volumes of boaters. Each year, finding suitable campsites becomes harder. When I started running the river, we'd begin looking for a camp after lunch after we had our fill of fishing for the day. Now we send a "gunner" boat out each morning that pulls on the oars as soon as they leave camp to simply beat other boaters to a suitable camp. We rotate this

responsibility, but it has become a major inconvenience and we've started looking at the Grand Ronde as an alternative due to overcrowding on the John Day.

"I agree with what you are doing but I question the consistency of your enforcement. Rafted from Service Creek- Clarno June 26-29 and the only real problem crowd-wise was a group of about 25 boy scouts and their leaders that had a canoe/kayak flotilla. Why was this group allowed to run the river, when the stated maximum group size is 16 people? There were very few suitable campsites for a group that large, and the size of the group changed the nature of other users' experience."

Better signage and education of the boating community and increased river patrol would be very helpful in addressing the littering and human waste issue. I would be receptive to paying a reasonable fee to float the river…if these dollars could be dedicated to river patrol activities.

I raft the JD 3 days almost every year. I'd like to see the JD protected from overuse and abuse by all users. My encounters on the river have always been pleasant, even in crowded conditions at the put-in/takeout the boaters have been considerate of one another. Over past 10 years there is more debris in the river and in camps. Limiting the number of users on popular weekends might be necessary to control the overuse.

Has floated 7-10 times in recent years, feels biggest problems are groups that are too large and human waste in the main camps.

"…..I float Clarno to Cottonwood 2-3 times per year and see virtually no one. In the fall I boat up to Tumwater Falls and there are 4 or 5 other boats tops….I can see no reason for you to do anything [i.e. tighter management] in this particular stretch of river. There is ample camping, an absence of litter, and it is a peaceful setting."

"I float 2-3 times per year and seldom encounter crowded conditions. I don't mind sharing the campsites when it does get crowded. It lets me make new friends."

"In the past when I have floated the river crowding has not been that big of a problem." [Said bigger problem is cow effects and dung in camps.]

"This year marked my 12th consecutive year floating the John Day River. Your review could not come at a better time….I have not seen as many boats and people on the river in prior years as I did this year. Oregon Whitewater Adventures (Springfield OR) had two parties of 16 people each floating down the river together. That is a lot of pressure on limited campsites. On one day, we counted water craft that passed our campsite from morning to mid-afternoon – we quit counting at 70. I have many boaters tell me they had never seen anything approaching the pressure that was seen this year. Comments ranged from "Oh, my God" to "The secret is out."

"There was also a conspicuous absence of rangers on the river enforcing rules. My party found campfire rings that had been recently used. We scattered the rocks back towards the river bank and cleaned up the areas."

"Although I have not seen them for several years, there used to be brown fiberglass campsite markers on the river, marking the campsites (as are found on the Deschutes River). I don't know if vandals have removed the signs or BLM. It would probably help those who are new to the river to have signs."

Recent 3-day trip May 29-31 weekend from Service Creek to Clarno was a different experience—too many people on the river, competition for the good campsites, noisy campers, lots of bass fishermen, etc. And hardly any wildlife. We saw the young BLM ranger at the Clarno pull-out.

[Many of my favorite attributes] were unfortunately not present on this year's trip. I saw more boats this year than all previous 9 years before combined. The sheer volume of river drifters was simply incredible. There were not nearly enough campsites for everyone. I counted 47 boats on one day that drifted by us.

We have recently started staying one extra night at Jack Knife Canyon as the fishing is probably best there across the river in the eddy."

Based upon the volume of trash, the human waste that was not carried out, the over pressure on fishing and obvious impact that so many humans have on the John Day Wild & Scenic River, some type of permitting and/or limitation should be immediately enforced. The April-August timeframe would be most impacted by the influx of visitors.

"This year we floated from Clarno to Cottonwood June 24-28 with the water level at about 1400 cfs. We saw two large groups one with 22 and the other with 25 people. And a lot of smaller groups. Evidence at the campsites strongly suggests that few are using WAG bags or other means to remove human waste. One positive is that there is very little, if any, litter left behind."

"Am presently an 80 year old native Oregonian who has been floating the John Day River long before the present popularity. Am cognizant of the increase in numbers now enjoying this activity. We use homemade kayaks with usually two of us, so find carrying a potty and pan for the fire plus extra items unlikeable. My basic suggestion is to please don't over regulate nor over manage my sport."

"Improve available campsites on BLM land and make some more. Mark them clearly. I did not see one BLM sign post of this summer's float from Clarno to Cottonwood. Work with private landowners to establish campsites on their property."

BLM should consider expanding or adding to existing camping. May not be something BLM wants to look at but if people care camping illegally it would certainly be more desirable than that.

We ran Clarno-Cottonwood 7/3-7/7. Recall the recent fire that reached the river just below 30-Mile Creek, in places where the rock walls and other obstructions couldn't stop the fire spread. Lots of wonderful shade trees and other riparian bushes and grasses were destroyed in many places. Many of the camps are on

alluvial benches and in some cases the alluvial fan where there is sufficient fuel to allow a fire to burn through the camp and the juniper trees.

I'd like to relay how one very fine camp was "saved" from this fire. Junipers and other vegetation that provided shade would have gone up in flames. But trails worn into the mineral soil from human use acted as a fire break, keeping the fire from the dry grass which usually then ignites the tree limbs. Human activity at this well-used camp prevented it from going up in flames. The camp would have taken many, many years to recover to ever become a desired camp again.

Safety should also be a concern. If a permit system is imposed during specific dates and someone doesn't draw a permit but then chooses to float in low water, hazards increase. At levels below 1000cfs drift boats are in danger of damage. Rafts and catarafts have difficulty in shallow water and have to be dragged. Risks of injury greatly increase when you have to get out of your boat. I've had to hike out due to a medical emergency; it's not easy. I feel more people would attempt low water floats if they can't get the permit for the time they wanted.

The past 10 years we've done low water trips from Clarno to Cottonwood. We monitor the river level and make our decision to go at the last minute. The lowest level we've launched was 300cfs- really too low but we still enjoyed the trip. Main goal of doing low water trips is to eliminate competition with outfitter-guides and large groups for available campsites. I don't want to lose the ability and flexibility of making our low water trips.

I know that as group, we typically catch between 200-600 total fish [bass] (all of which are released) depending on the flow, depth and clarity of the water in any given year.

"Additionally you could offer a recommendation for rafters not fishing to use the river at water levels above 2000cfs. Fishing is usually marginal above 1500-2000cfs."

Comments about cattle grazing effects on campsites and overall recreation experience

I wonder what does more harm the boaters or the cows?

Many campsites on lower river (30-mile to Cottonwood) were significantly cow infested. Strongly recommend BLM consider significant restrictions to keep these animals out of potential campsites, i.e. areas with trees. The social, economic and environmental values associated with recreation use should clearly override the value of allowing cattle on these sites.

"If this is to be a wilderness experience on a Wild & Scenic River, range management must be improved. Cattle usage of the riparian zone should be as limited as human usage. The riparian vegetation along much of the river is severely degraded due to grazing during the growing season. It's also hard to feel good about pooping in a bucket after pitching your tent among copious cow pies."

In the past when I have floated the river crowding was not that big of a problem. The bigger problem is the lack of decent camp spots that are not covered in cow shit! This river is a real treasure and should not be treated like a feed lot for a few head of cattle."

As usual we invariably found cow "pies", some fresh and some old, in some of the camps we stayed at. It was my understanding that the BLM was working to keep cattle out of the riparian zone. Perhaps expanded efforts in keeping cattle away from the river could be part of the permitting study.

We ran "…five days and four nights, April 30-May 4 [2009] from Clarno to Cottonwood. We noticed more cattle than on previous trips, but they hadn't messed up the campsites too badly."

Comments on LAC process

Had to wade through a huge amount of bureaucratic narrative to find any substantive information. Need to include information in your quick review document, not force readers to dig into the details to find the most important component of future plans, i.e. the would implement a special recreation permit fee and the notion that BLM needs to have a limited entry system for a specified time period.

Also have issue with the conduct of the [LAC] "study". BLM did not differentiate between use of the river by outfitter-guides from that of use by general public who don't have the money or willingness to pay costs associated with guided trips. Asks that management actions include a permit system for guided trips. In 2008 trip encountered more guided trips than I'd ever seen and a few regular Oregonians trying to recreate inexpensively.

Appendix C: Desired Future Conditions, Indicators and Standards for John Day River Boating

The John Day River Study carefully documented the desired future condition (DFC) for the John Day River corridor from Service Creek to Cottonwood Bridge and described the monitoring system that would be used to measure the condition of the river corridor at any point in time, so that current conditions may be compared with desired conditions. Of eleven physical, social, and managerial indicators selected for field monitoring into the future, three of the indicators relate to alternatives analyzed in this Environmental Assessment. These are:

1) Boating Encounters 2) Camp to Camp Solitude 3) Campsite Availability

<u>Definitions</u>

Campsites:

Inventoried Campsite: An area indicating evidence of camping use between 2000 and 2009, as documented in BLM campsite inventories.

Restored Campsite: A historical campsite temporarily made unusable by weed infestation, tree damage, soil erosion, or other factors, but later restored to a usable condition.

Legal Campsite: An area used for camping that is: 1a) located on BLM land, b) located on State land below the ordinary high water mark or on State-owned uplands, or c) located on private land where public use has been secured by BLM through a formal agreement with the landowner; and 2) where the site or area is not specifically closed to overnight use.

Suitable Campsite: A suitable boat-in campsite is a *legal* campsite, which has been either *inventoried* or *restored* where:

1) Physical campsite conditions accommodate camping use without deterioration from one year to the next (as measured through LAC monitoring in indexed sites of human effects to: riparian vegetation, tree condition, and camp area. See LAC Monitoring Plan for specifics);

2) Campsite use does not detract from the opportunity for solitude of adjacent campsite users (meets Camp to Camp Solitude standards for minimum distance between camps);

3) Usable flat ground within the campsite perimeter measures at least 500 square feet;

4) Vehicle use is not the primary form of campsite access.

Indexed Campsite: A campsite in which intensive monitoring is conducted by BLM at least annually.

Desired Future Condition (DFC): A description of physical, social, and managerial attributes which together define the desired character of the river corridor.

Encounter: An encounter occurs when a member(s) of one boating group sees a member(s) of another boating group of any size.

Encounters Per Day: Equals the number of boating groups seen per day; each group is counted only once. Multiple encounters with the same boating group on the same day equal one encounter.

Solitude: Minimal contact with people outside one's own group; the state of being alone or remote from habitation; a lonely, unfrequented or secluded place.

Indicators, Standards, Monitoring Methods, and Possible Management Actions

Boating Encounters

Encounter: *An encounter occurs when a member(s) of one boating group sees a member(s) of another boating group of any size.*

Encounters Per Day: *Equals the number of boating groups seen per day; each group is counted only once. Multiple encounters with the same boating group on the same day equal one encounter.*

Segment 2 DFC: Boaters experience few encounters with other boaters not in their group. Encounters with others are infrequent; crowding is minimal.

Segment 3 DFC: Boaters experience a moderate number of encounters with other boaters not in their group. Contact with other groups is expected and occasionally continual, however opportunities for solitude remain. During peak season, encounters with others are expected on the river and at fishing holes.

Indicator: Encounters per day with other boating groups outside of developed recreation sites with vehicle access. Includes encounters on the river, river to bank, bank to river.

Segment 2 Standard: Boaters experience no more than 6 encounters per day with other boating groups. In Segment 2, it is estimated that boaters would encounter approximately 50% of the boating groups that share their launch segment and launch date.

Segment 3 Standard: Boaters experience no more than 15 encounters per day with other boating groups. In Segment 3, it is estimated that boaters would encounter approximately 35% of the boating groups that share their launch segment and launch date.

Segment	Launch Point	Proposed total launches per day (includes overnight launches and day-use launches)	Proposed maximum overnight launches per day	Proposed minimum launches per day reserved for day-use	Estimated rate at which boaters encounter other boating groups sharing their launch segment and launch date	Estimated encounters per day with other boating groups
2	Clarno	9	9	0	50%	4.5
3	Muleshoe or Service Creek	43	9	24	35%	15
3	Twickenham, Priest Hole, or Lower Burnt Ranch		10			

Monitoring Method: River rangers and other BLM employees who float the river at the same speed as a typical boating group keep a count of their encounters per day. At take-outs, BLM staff conduct a survey of boating groups, asking boaters to report the number of boating groups they encountered on the each day of their trip. The responses are recorded and compared with daily launch data to verify the rate at which boaters encounter other boating groups sharing their launch segment and launch date.

Monitoring Frequency: Staff record their encounters whenever float trips occur. At a minimum, 20 days per season, emphasizing both peak and shoulder boating seasons.

Camp to Camp Solitude

Solitude: *Minimal contact with people outside one's own group; the state of being alone or remote from habitation; a lonely, unfrequented or secluded place.*

Segment 2 DFC: Human sights and sounds from adjacent campsites are not distracting and do not detract from the sights and sounds of nature. Campsites are dispersed; visitors at adjacent campsites may be seen, but are usually not heard. Adjacent camps may be visible, but are far enough away to maintain a feeling of privacy; activities carried out by individuals in other camps cannot be identified and do not interfere with the user's experience.

Segment 3 DFC: Human sights and sounds from adjacent campsites are not distracting and do not detract from the sights and sounds of nature. Campsites are dispersed; visitors at adjacent campsites may be seen or heard.

Indicator: The opportunity for solitude in a suitable campsite.

Segment 2 Standard: The minimum distance between suitable campsites is 300 feet.

Segment 3 Standard: The minimum distance between suitable campsites is 175 feet.

Monitoring Method: Use GIS to measure the linear distance between camps, measuring from the core of each camp.

Monitoring Frequency: Measure all designated campsites to establish baseline data. Measure any new campsites being considered for possible inclusion as suitable campsites.

Note: When new lands or recreational easements are acquired along the river, potential campsites would be reviewed for compliance with suitable campsite criteria.

Campsite Availability

DFC: Suitable boat-in campsites on BLM land are sufficient to accommodate the number of overnight boating groups. Boating groups are not expected to camp at developed recreation sites with vehicle access. It is not necessary to rush ahead to claim a campsite, nor share a campsite with another group. Camping on private land does not occur without permission of the landowner.

Indicator: Number of overnight boating groups launching per day from a given launch point.

Standard: The number of overnight boating groups launching per day from a given launch point does not exceed 70% of the designated campsites within the first 15 miles of Segment 3 launch points, and the first 15 miles of Segment 2 launch points.

Segment	Launch Point	Public Land campsites available within 15 miles	Public Land campsites available based on 70% occupancy rate	Average number of groups coming from upstream launch points	Proposed overnight launches per day
2	Clarno	14	9	<1	9
3	Muleshoe or Service Creek	13	9	<1	9
3	Twickenham, Priest Hole, or Lower Burnt Ranch	19	13	3	10

Monitoring Method: Boater registration data is compared to the number of suitable campsites and their locations; river ranger field observations.

Monitoring Frequency: Boater registration data is tabulated annually; river ranger field observations occur whenever float trips occur.

Note: In emergency situations (flood, fire, insect infestations, health and safety concerns, etc.) the number of available designated campsites may decrease, which may result in a reduction in permitted launches in a limited entry permit system. Conversely, the number of designated campsites may increase as a result of land acquisition, recreational easement, or campsite rehabilitation, which may result in an increase in launches in a limited entry permit system.

Appendix D: References

Clark, R.N. and G.H. Stankey. 1979. The Recreation Opportunity Spectrum: A Framework for Planning, Management and Research, Gen. Tech. Rep. PNW-98, USDA Forest Service, Pacific Northwest Forest and Range Experiment Station.

Council on Environmental Quality. 1997. Environmental Justice—Guidance under the National Environmental Policy Act. http://ceq.hss.doe.gov/nepa/regs/ej/justice.pdf

Driver, B.L., P.J. Brown, G.H. Stankey, and T.G. Gregoire. 1987. The ROS planning system: evolution, basic concepts and research needs. Leisure Sciences 9: 201- 12.

Federal Register Doc 05-16162, Final Supplemental Rules on Public Land in Oregon and Washington, c. 1-8, 2005

Haas, G. 2008. The Federal Interagency Task Force on Visitor Capacity on Public Lands and Waters. Briefing sheet. User Capacity Symposium, Yosemite National Park February 6, 2008.

IMPLAN, 2006. Minnesota IMPLAN Group 2006.

Loomis, J. 2005. The economic values of recreational fishing and boating to visitors and communities along the upper Snake River. Department of Agricultural and Resource Economics, Colorado State University, Fort Collins.

Manning, R. E. 1999. Studies in Outdoor Recreation. Oregon State University Press, Corvallis, OR. Second edition.

Oregon Department of Fish and Wildlife. 1999. Personal communication, T. Unterwegner, John Day Office. (As cited in USDI Bureau of Land Management 2000, John Day River Plan.)

Oregon Parks and Recreation Department. 2010. Online information for Cottonwood Canyon State Park planning process. Accessed July 15, 2010: http://www.oregon.gov/OPRD/PLANS/planning_cottonwood.shtml

Oregon State University. 2009. Lower Deschutes Limited Entry Monitoring Project Final Report. September 3, 2009. Principal Investigator: Dr. Kreg Lindberg OSU Cascades Campus.

Portland State University. 2004. Population Research Center. Forecasts of Oregon's County Populations. Available from State of Oregon, Office of Economic Analysis http://www.oea.das.state.or.us/DAS/OEA/demographic.shtml

Ray, V.F., G.P. Murdock, B. Blythe and O. Stewart. 1938. Tribal Distribution in Eastern Oregon and Adjacent Regions. American Anthropologist 40:384-415.

Richard, T. 2010. Cottonwood Canyon: A new state park in the making on the John Day River. The Oregonian, 5-08-2010. Accessed online via OregonLive.com on July 15, 2010: http://www.oregonlive.com/news/index.ssf/2010/05/cottonwood_canyon_a_new_state.html

Steward, O.C. 1939. The Northern Paiute Bands. Anthropological Records, vol. 2, no. 3. University of California Press, Berkeley.

Suphan, R.J. 1974. Ethnological Report on the Wasco and Tenino Indians. Ethnological Report on the Umatilla, Walla Walla, and Cayuse Indians: Commission Findings. In Oregon Indians II, edited by D.A. Horr, pp. 1-180. New York: Garland Series in American Indian Ethnohistory.

US Department of Agriculture Forest Service. 2003. Recreation Opportunity Spectrum for River Management. Diedrich. Portland, OR.

US Department of Agriculture, Forest Service. 1998. Economic and Social Conditions of Communities: Economic and Social Characteristics of Interior Columbia Basin Communities and an Estimation of Effects on Communities from the Alternatives of the Eastside and Upper Columbia River basin DEIS. ICBEMP, Walla Walla, WA 99362

US Department of Commerce 2000. US Census Bureau. Census 2000b. SF3 Table P49.

US Department of Commerce. 2000. US Census Bureau. Census 2000c. SF1 Tables P7 and P8.

US Department of Commerce. 2006. Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce.

US Department of Interior Bureau of Land Management. 1992. BLM Manual H-8351-1: Wild & Scenic Rivers – Policy and Program Direction for Identification, Evaluation, and Management.

US Department of Interior Bureau of Land Management. 1995. BLM Manual H-8550-1: Interim Management Policy for Lands under Wilderness Review.

US Department of Interior Bureau of Land Management. 2000. John Day River Proposed Management Plan, Two Rivers and John Day Resource Management Plan Amendments and Final Environmental Impact Statement. Prineville District, BLM. Prineville, OR.

US Department of Interior Bureau of Land Management. 2001. Record of Decision, John Day River Management Plan, Two Rivers, John Day, and Baker Resource Management Plan Amendments. Prineville District, BLM. Prineville, OR.

US Department of Interior Bureau of Land Management. 2004. 2001/2002 John Day River Boater Survey Report, Prineville District.

US Department of Interior Bureau of Land Management. 2005. Manual Transmittal Sheet. BLM Land Use Planning Handbook 1610-10; Appendix D pages 6, 7, and 10.

US Department of Interior Bureau of Land Management. 2006a. John Day River Study. Prineville District, BLM. Prineville, OR.

US Department of Interior Bureau of Land Management. 2006b. BLM Manual H-2930-1: Recreation Permit Administration (Public).

US Department of Interior Bureau of Land Management. 2006c. Recreation Planning: Effective Engagement in BLM's Land Use Planning Processes. National Training Center, BLM. Phoenix, AZ.

US Department of Interior Bureau of Land Management. 2007. Instruction Memorandum No. 2007-043. A Unified Strategy to Implement BLM's Priorities for Recreation and Visitor Services Workplan (Purple Book).

43 Code of Federal Regulations. 2007.

Whittaker, D. and B. Shelby. 2008. Allocating River Use: A review of approaches and existing systems for river professionals. River Management Society, USDI Bureau of Land Management and Confluence Consulting.

Finding of No Significant Impact

John Day River Study, DOI-BLM-OR-P040-2008-0159-EA
US Department of the Interior, Bureau of Land Management
Prineville Field Office, Oregon

Background

The Bureau of Land Management (BLM) has completed an Environmental Assessment (EA), No. DOI-BLM-OR-P040-2008-0159-EA, for a proposed action to prescribe a maximum capacity for boating use on two river segments, with a corresponding number of permits available for boat launching, on 118 miles of the John Day Wild and Scenic River located in north-central Oregon.

The proposed action would apply to boating use on Segment 2 (70-miles, Clarno to Cottonwood) and Segment 3 (48-miles, Service Creek to Clarno) of the John Day Wild & Scenic River where river float trips are popular and boating use is increasing. The actions described would apply each day during the primary boating season, between May 20 and July 10, when the majority of boating use occurs, and are intended to reduce crowding by spreading the number of daily launches more evenly throughout this time period.

In 1988, under the Omnibus Wild and Scenic Rivers Act the Bureau of Land Management was charged with the preparation of a management plan that addresses resource protection, development of lands and facilities, and user capacities on the Wild and Scenic river portion of the John Day River. In 2001 the Bureau of Land Management completed the John Day River Management Plan Environmental Impact Statement and Record of Decision. The John Day River Plan directed the BLM to use a Limits of Acceptable Change analysis to determine appropriate boating use levels for Segments 2 and 3 of the John Day River. In 2006, the BLM completed this analysis, called the John Day River Study, which established a long term plan to monitor conditions and suggested ways to maintain river conditions. The BLM is continuing to implement the John Day River Plan by using this EA process to analyze alternatives that would set a capacity for boating use.

Public scoping for the John Day River Study Environmental Assessment was initiated in July 2008. A full range of alternatives is being analyzed to meet the requirements of the Wild and Scenic Rivers Act of 1988, which directs the BLM to set a user capacity.

The EA is attached to and incorporated by reference in this Finding of No Significant Impact (FONSI) determination. Two action alternatives and a no action alternative were analyzed in the EA.

Finding of No Significant Impact

On the basis of the information contained in the EA, and all other information available to me, it is my determination that: (1) the implementation of the Proposed Action will not have significant environmental impacts beyond those already addressed in the John Day River Management Plan Environmental Impact Statement Environmental Impact Statement and Record of Decision, 2001; (2) the Proposed Action is in conformance with the Resource Management Plan; and (3) the Proposed Action does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

This finding is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR 1508.27), both with regard to the context and to the intensity of the impacts described in the EA or as articulated in the letters of comment.

Context

The proposed action would apply to 118 miles of the John Day Wild and Scenic River between Service Creek and Cottonwood Bridge administered by the BLM. The river was designated as a Wild and Scenic River by Congress in 1988, which gives it national importance. The John Day River is identified by the State of Oregon as a State Scenic Waterway. Regionally, portions of the John Day River system provide habitat for special status anadromous fish species. The John Day River does not have international importance.

Intensity

I have considered the potential intensity/severity of the impacts anticipated from the John Day River Study decision relative to each of the ten areas suggested for consideration by the CEQ. With regard to each:

1. Impacts that may be both beneficial and adverse.

The proposed action will impact recreation, social, and economic resources as described in the EA. Mitigations to reduce impacts to affected user groups were incorporated in the design of the proposed action. None of the environmental effects discussed in detail in the EA are

considered significant, nor do the effects exceed those described in the John Day River Management Plan Record of Decision, 2001.

2. The degree to which the proposed action affects public health and safety.

The proposed action will not impact public health and safety.

3. Unique characteristics of the geographic area such as proximity of historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

The proposed action will set a capacity for boating use and require boaters to obtain an advance launch permit prior to launching on 118 miles of the 147-mile John Day Wild and Scenic River. The Wild and Scenic Rivers Act of 1968, directs the BLM to set a user capacity for the John Day River and to manage use within that capacity.

There are no effects on historic or cultural resources, park lands, prime farm lands, wetlands, or ecologically critical areas.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The degree to which the Proposed Action is likely to be controversial is unknown. Some boaters accustomed to unrestricted access may not agree that boat trip launches need to be limited. Boaters who prefer the flexibility to organize a boating trip on short notice may be opposed to requirements to obtain a permit in advance of their launch date. A phased-release of launch permits that makes subsets of permits available at different intervals - both well in advance and close to actual launch date - is expected to help alleviate such concerns.

Commercial outfitter-guides may feel that they are less able to schedule and market trips due to reduced certainty that they will be able to obtain launch permits when desired. The system of allocating permits between commercial and non-commercial users was decided in the 2001 John Day River Plan which determined that if a permit system is needed for the river, permits would be allocated through a first-come, first-served common pool reservation system to all users in the same manner.

Other businesses in the John Day River area which benefit from economic activities related to boating use may be concerned that boater limits could reduce their income. A social economic analysis contained in the EA suggests that such effects are likely to be minimal, as most boaters displaced from launching on a particular day are expected to simply select a different launch date. Daily launch limits may reduce day-to-day variability in the amount of economic activity

generated by boaters and thus allow some businesses (e.g. vehicle shuttle services) to accommodate more demand across the boating season. And maintaining the quality of boating recreation experiences - the primary goal of the action alternatives - is key to the long-term viability of businesses that rely on these boaters for income.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

There are no predicted effects on the human environment that are considered to be highly uncertain or involve unique or unknown risks. The BLM has implemented similar actions on the Lower Deschutes River, also located within the Prineville District, where a similar permit system has been implemented and is operating successfully. The environmental effects to the human environment are fully analyzed in the EA.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The proposed action will not establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

The interdisciplinary team evaluated the possible actions in context of past, present and reasonably foreseeable actions. Significant cumulative effects are not predicted to occur. A complete disclosure of the effects of the project is contained in the EA.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.

The proposed action will not adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor will it cause loss or destruction of significant scientific, cultural, or historical resources.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The proposed action will not affect endangered or threatened species or its habitat.
The area included in the proposed action supports a threatened fish species; however the fish is not present during the season in which the action is proposed.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The proposed action does not violate any known Federal, State, Local or Tribal law or requirement imposed for the protection of the environment. State, local, and tribal interests were given the opportunity to participate in the environmental analysis process.

11. Involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E)) not already decided in an approved land use plan.

There are no unresolved conflicts not already approved in land use plans.

12. Have a disproportionate significant adverse impacts on low income or minority populations; Executive Order 12898 (Environmental Justice).

This project does not have a disproportionate significant adverse impacts on low income or minority populations; Executive Order 12898 (Environmental Justice).

13. Restrict access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites; Executive Order 13007 (Indian Sacred Sites). Have significant adverse effect on Indian Trust Resources.

This project does not restrict access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites; Executive Order 13007 (Indian Sacred Sites). This project does not have significant adverse effects on Indian Trust Resources.

14. Contribute to the introduction, existence, or spread of: Federally listed noxious weeds (Federal Noxious Weed Control Act); or invasive non-native species; Executive Order 13112 (Invasive Species).

This project does not contribute to the introduction, existence, or spread of: Federally listed noxious weeds or invasive nonnative species. There are no known locations of noxious weeds within the project area at this time.

15. Have a direct or indirect adverse impact on energy development, production, supply, and/or distribution; Executive Order 13212 (Actions to Expedite Energy-Related Projects).

This project does not have a direct or indirect adverse impact on energy development, production, supply, and/or distribution.

_____ _____

H.F. "Chip" Faver Date

Field Manager, Central Oregon Resource Area