

APPENDIX I

SUMMARY OF MOTORIZED USE DATA ANALYSIS

PRIVATE POWERBOATS¹

	Alternatives								
River Segment	A²	B	C	D	E		F	G³	
ENTIRE WILD RIVER	5.1	5.6	4		<u>ON</u>	<u>OFF</u>	0	<u>P</u>	<u>NM</u>
Dam - W Sheep				8		6			
W Sheep - Kirk only					0				
Kirk - Pitts only					0				
				0		0			1
				0		0			0
				6		8⁴			5
SUBTOTAL-WILD	5.1	5.6	4	6	8	8	0	6	6
ENTIRE SCENIC RIVER	11	Unlimited	5	13	<u>WD⁵</u> <u>WE⁵</u>		14	<u>WD⁵</u> <u>WE⁵</u>	
Salmon - Cache					10	20		10	20
SUBTOTAL-SCENIC	11	Unlimited	5	13	10	20	14	10	25

¹ Since each private powerboat must have a permit for entry, 1 permit = 1 powerboat = 1 launch. All numbers displayed represent daily launches (total private powerboats allowed) for day or overnight use at the option of the boater unless otherwise noted.

² For analysis purposes, numbers in Alternative A represent the existing situation and are based on the average daily number of launches during the 1991 regulated season for the wild and scenic sections of the river. Since there is currently unlimited powerboat use, these numbers could continue to increase.

³ For Alternative G, the following terms apply:

P = Primary season except during the 24 non-motorized days.

NM = Non-motorized days. All powerboat use in the wild river on non-motorized days is for day use only. Non-motorized use is for a limited time period of 24 days per year, Monday through Wednesday only, each week from the 2nd Monday of July through the Wednesday prior to Labor Day. Non-motorized use occurs between the top of Wild Sheep Rapid and the upper landing at Kirkwood Historic Ranch.

⁴ 2 overnight, 6 day use.

⁵ WD = Weekdays (Monday through Thursday)
WE = Weekends (Friday through Sunday)

⁶ Day use only.

COMMERCIAL POWERBOATS

	Alternatives								
River Segment	A	B	C	D	E¹		F	G²	
ENTIRE WILD RIVER Dam - W Sheep W Sheep - Kirk only Kirk - Pitts only	8	12	4		<u>ON</u>	<u>OFF</u>	0	<u>P</u>	<u>NM</u>
				12		5			
				0	0	1		2	
				0	0	(5)³		0	
				6	4		1	4	
SUBTOTAL-WILD	8	12	4	6	12	4	0	7	6
Pittsburg - Cache Cr	7	Unlimited	5	8	8		9	6	
SUBTOTAL-SCENIC	7	Unlimited	5	8	12		9	6	

¹ Alternative E - 12 boats maximum in the entire river corridor (Wild, Scenic and Study combined) in ON or OFF week. Maximum of 6 boats overnight in the Scenic River in the ON or OFF week including outfitter lodges between the Hells Canyon NRA north boundary and Pittsburg. Of the 12 allowed on the entire river per day, only 8 could originate downstream from Cache Creek.

On Week - maximum of 6 boats overnight above Pittsburg including overnight trips to lodges at Sheep Creek and Kirby Creek.

Off Week - maximum of 4 boats above Pittsburg for day use as far as Kirkwood only.

² Alternative G - 4 of the 6 boats in the Scenic River in columns are included in the count of boats in the Wild River.

³ The number in parentheses indicates boats that could be operating in this section of river because they are the same boats listed in the first row under G that would be allowed to operate in the entire wild river corridor during the primary season, dependent upon each outfitters area of operation.

PRIVATE AND COMMERCIAL POWERBOATS - MAXIMUM DAILY LAUNCHES

	Alternatives						
River Segment	A¹	B	C	D	E	F	G³
TOTAL WILD RIVER Dam - W Sheep W Sheep - Kirk only Kirk - Pitts only	13.1	17.6	8	12	<u>ON</u> <u>OFF</u> 20 12	0	<u>P</u> <u>NM</u> 11 3 1 0 (11)² 9 1 9
SUBTOTAL-WILD	13.1	17.6	8	12	20 12	0	13 12
TOTAL SCENIC RIVER Salmon - Cache	18	Unlimited	10	21	<u>WD</u> <u>WE</u> 22 32	23	<u>WD</u> <u>WE</u> 16 26 5
SUBTOTAL-SCENIC	18	Unlimited	10	21	22 32	23	16 31
TOTAL W & S RIVER	24-31	Unlimited	13-18	25-23	<u>ON</u> <u>OFF</u> <u>WD WE</u> <u>WD WE</u> 29 40 29 40	23	<u>P</u> <u>NM</u> <u>WD WE</u> <u>WD WE</u> 24 39 23 38
TOTAL RIVER MILES (DENSITY)³	70	70	70	44	70 44	38	70 50

¹ Since Alternative A is the existing situation with no limits on powerboats, the status quo would allow unlimited powerboat use. Numbers are shown to display average daily use in 1991.

² The number in parentheses indicates boats that could be operating in this section of river because they are the same boats listed in the first row under G that would be allowed to operate in the entire wild river corridor during the primary season, dependent upon each outfitter's area of operation.

³ River miles for alternatives A, B, C, E (on), and G (primary) measured from Cache Creek Ranch (Mile 177) to Hells Canyon Creek (Mile 247). River miles for Alternatives D and E (off) measured from Cache Creek to Kirkwood (Mile 221). River miles for Alternative F measured from Cache Creek Ranch to Pittsburg Landing (Mile 215). River miles for Alternative G (non-motorized) measured from Cache Creek Ranch to Kirkwood plus Hells Canyon Creek to Wild Sheep Rapids (Mile 241). All river miles rounded to nearest whole mile.

IMPLEMENTATION OF POWERBOAT USE LIMITS

In Alternatives B-G, allocations would be implemented immediately in the entire Snake River corridor for commercial powerboat use and in the wild river corridor for private powerboat use. Allocations on private powerboats in the wild river under Alternative B could be adjusted downward from the initial allocation based on monitoring (see following narrative sections specific to Alternative B).

Implementation of allocations in the scenic river for private powerboats would vary between alternatives as follows:

1. Immediate implementation (Alternatives C, D, F).
2. Monitoring prior to determining allocation (Alternative B).
3. A predetermined allocation that would go into effect when a monitoring standard was reached and that would be adjustable based on monitoring (Alternatives E and G on weekdays only).
4. Immediate implementation of predetermined caps that would be adjustable based on monitoring (Alternatives E and G on weekends).

Use in the secondary season would be managed through monitoring. As use in the secondary season reached or exceeded the primary season limits, the primary season would be expanded to include a greater length of time. This is common to all action alternatives, would be based upon monitoring of average weekly use levels, and would be implemented in weekly increments when limits were exceeded in two out of three consecutive years.

ANALYSIS OF HISTORIC POWERBOAT USE TRENDS

Analysis of powerboat use for the period 1982-1992 revealed some overall use trends over time in the river corridor that is applicable to all alternatives as follows:

Wild River

Based on historic use, the average trip length for private powerboat trips in the Wild River for the 11 year period from 1982-1992 was 2.47 days per trip (reference analysis file). In only one year between 1982 and 1992 did the average trip length for all private powerboaters in the Wild River exceed three days (1984).

The historic trends in recreation demand for private powerboat access to the wild river shows that the greatest demand for access has consistently been on Thursday through Sunday in July and August as well as primary season holiday periods, with Friday and Saturday in July and August consistently representing the highest days of demand. Launches on Monday through Wednesday have historically represented only about 20% of the total launches per week in July and August. This is based upon analysis of private powerboat permits in the 1980's and 1990's.

Historically, overnight use by commercial powerboaters that has occurred with regularity has been limited in the wild river, mainly to the Riggins area outfitters and a few outfitters from the Lewiston-Clarkston valley. The majority of use has been commercial day trips.

Scenic River

Based on historic use, the average trip length for private powerboat trips with a destination within the scenic river for the 11 year period from 1982-1992 is 2.01 days per trip (reference analysis file). For all trips traveling within the scenic river including trips with a destination in the wild river, the 11 year average is 1.95 days per trip (reference analysis file). This section of river provides access for an entirely different user group than the wild river which has a higher days per trip average. Boaters in this section of river are primarily traveling upstream from the Lewiston-Clarkston valley and include a higher percentage of new, less-experienced boaters and people on day outings. Because each powerboat is required to have a permit, use analysis reflected a private powerboat trip as the equivalent of one boat.

The historic trends in recreation demand for private powerboat access to the scenic river shows that the greatest demand for access has consistently been on Friday through Sunday, especially in June, July, and August as well as primary season holiday periods, with Saturday consistently representing the highest day of demand. In recent years, Sunday has replaced Friday as the second highest day of demand with a significant drop in demand on Monday, indicating a growing trend in day trips by powerboaters into this section of the river, especially from the Lewiston-Clarkston area. This is based upon analysis of private powerboat permits in the 1980's and 1990's.

Historically, overnight use at campsites by commercial powerboaters during the primary season has been extremely limited in the scenic river, mainly by outfitters from the Lewiston-Clarkston valley. The majority of use has been commercial day trips with some overnight use primarily at lodges.

There is an increasing level of float use in the scenic river below the mouth of the Salmon. This use should be considered in terms of overall congestion and encounters when determining use levels but not in determining motorized and non-motorized encounters related to sound since outboard motors are commonly used by floaters in this stretch of river.

BASIC ASSUMPTIONS OF POWERBOATER EXPECTATIONS

Powerboaters can have a backcountry experience in a setting where the sights and sounds of other users are significantly higher (in comparison to the setting required by non-motorized users) without adversely affecting their experience. This is highlighted by comparing their similarity with private floaters' reasons for taking a river trip including the need for being close to nature, experiencing solitude, and for peace and quiet (U of I Visitor Profile). Prior to completion of the University of Idaho study, there was a lack of awareness concerning the types of expectations and desired experiences of motorized recreationists who use this area.

Meeting the needs of what powerboaters desire as a backcountry experience is more closely associated with access (including the degree of challenge and risk involved in traveling through the area), recreational attributes of the area (including the setting and outdoor activities available), and their social interaction with other users that are present rather than the presence of other users (regardless of whether the other users are motorized or non-motorized recreationists). This is reflected in noticeable fluctuations in private powerboater use during extremes of low or high water, productivity of game fish and conflict with non-motorized users who are seeking an experience free of motor noise, powerboat wakes and multiple encounters with other parties during their trip.

BASIS FOR DETERMINING NUMBER OF POWERBOATS

ALTERNATIVE A

Use figures were derived from 1991 river use data which was the last year when all types of use (commercial and private, power and float) each reached a peak at their maximum level in a single season. In 1992 and 1993, one or more types of use fluctuated from this maximum level, due primarily to changes in streamflow (extremes of low water in 1992 and higher early season runoff in 1993).

ALTERNATIVE B

Use figures were determined from the LAC planning process based on 1990 river use data.

Private Powerboats

The LAC planning process arrived at a daily maximum number of launches into the wild river of eight boats per day for weekday access (Sun-Thur) and 16 boats per day for weekend access (Fri-Sat), but with a maximum limit of 635 launches for the primary season. This seasonal limit would not fit within the 8/16 daily launch allocation and would result in all private powerboat use ending for the remainder of the season as soon as the limit of 635 launches was reached as displayed below:

Day of Week	S	M	T	W	TH	F	S	Total	Avg use/day
Daily Launches	8	8	8	8	8	16	16	= 72	10.3

$$10.3 \text{ boats per day} \times 114 \text{ day season (1990)} = 1174 \text{ boat cap}$$

The maximum ceiling of 1174 was an increase of approximately 85% over the recommended cap of 635 boats. This represented a major discrepancy between the allocation of 8/16 and the cap of 635 boats and was determined to be unmanageable.

Since the LAC planning process had been specific concerning a maximum ceiling of 635 boats, an alternative ratio of launches was developed that stayed within the 635 maximum. This would allow private powerboat use to continue for the entire primary season. Based upon the 114 day primary season for 1990, the 635 powerboat maximum was equivalent to 5.6 boats per day.

The two most similar patterns of use to the LAC regime of 8/16 that approached but did not exceed an average use of 5.6 boats per day were:

Day of Week	S	M	T	W	TH	F	S	Total	Avg. use/day
Option 1:	4	4	4	4	4	9	9	= 38	5.4
Option 2:	5	5	5	5	5	7	7	= 39	5.6

In the interest of simplicity both for the river administrator and for the recreating public, use levels would vary in the same pattern as the original LAC planning process scenario, i.e., one level for weekdays and one for Friday and Saturday (weekend access days). In recognition of the need for greater access on weekends, option 1 would be selected.

In order to also maintain the limit of 635 boat days per season, the following guidelines would be implemented.

Use would begin at the recommended level of 8/16. Projected use for the primary season would be evaluated at the end of each two week period during that time period. If cumulative use averaged above 5.4 private powerboats per day, limits specific to the 635 cap would be implemented in the following stages:

Weekend access would be limited for the remainder of the primary season to nine private powerboat launches per day.

If the season average remained above 5.4 boats per day at the end of the next two week period for which the lower weekend limits had been fully implemented, weekday powerboat launches would be limited to a maximum of four boats per day.

When implemented, the limits would remain in effect for the remainder of the primary season.

Commercial Powerboats

The LAC planning process determined that a maximum of 1,368 boats in the wild river based on 1990 use levels (as determined by commercial powerboaters) and added an additional 20% increase to allow for continued growth. This total, based on 114 primary season days in 1990 equates to an average of 12 commercial powerboat launches per day into the wild river.

ALTERNATIVE C

Use figures were determined based on the average daily number of boats launched during the 1985-1989 primary use seasons and adjusted between commercial and private boats to maintain equity within the powerboat user group. Undersecretary of Agriculture Crowell's 1983 decision on daily trips by powerboats specified that use levels could not be adjusted prior to the 1985 summer season. The University of Idaho conducted a user survey in 1988 and 1989 as part of the requirement in Crowell's decision specifying that the Forest Service monitor effects of boat use on other values subsequent to determining the necessity of adjusting boating use levels.

ALTERNATIVE D

This is a temporal allocation of use where powerboaters are not allowed in the wild river between Hells Canyon Dam and Kirkwood during the summer months, but do have that section of river available for use during the remainder of the year.

Dam to Kirkwood - Private and Commercial Powerboats

No use during the primary season.

Kirkwood to Pittsburg - Private and Commercial Powerboats

Use was determined based on a density of approximately one boat per mile on an equal basis for commercial and private powerboats. Further considerations included reducing social conflict between floaters and powerboaters and providing motorized access to Kirkwood Historic Ranch.

Pittsburg to Cache Creek

Use was calculated based on a 17% increase over 1991 average daily primary season private and commercial powerboat launches (Alternative A) in the scenic river. This increase of use in the scenic section was intended to provide some additional access for powerboat use displaced from the river upstream from Kirkwood during the summer months.

ALTERNATIVE E

Use figures were determined based on providing a backcountry experience at a level compatible with powerboaters' ability to achieve their experience expectation. Use levels in this alternative reflect the separation of motorized and non-motorized use in the river between Kirkwood and Hells Canyon Dam and the emphasis on a semi-primitive, motorized experience in the scenic river.

Private Powerboats

Objectives of an allocation system would be to strive for a maximum daily number of launches that would correspond to an optimum number of boats on the river and would allow the motorized user to experience a backcountry river trip. Several different factors would be important when considering use levels including:

1. Number of campsites available.
2. Recognition of ease of mobility for powerboaters by allowing maximum flexibility to choose campsites and travel in different sections of the wild river after they have launched.
3. Dispersion and density of powerboat recreationists based upon number of river miles available for the experience.
4. Allowing individual skill to be the basis for achieving the desired recreation experience for motorized backcountry travel in the wild river, i.e., Kirkwood to Rush Creek, Rush Creek to Granite, Granite to Wild Sheep, Wild Sheep to Hells Canyon Dam.
5. Providing powerboaters with their expectation of what a motorized backcountry experience might relate to in terms of numbers of boats and/or encounters based upon their reasons for taking a river trip (U of I Visitor Profile).
6. Recognition that some powerboaters camp on their boats and do not utilize campsites or camp at sites with more than one boat but with less than the maximum party size. Both of these practices could potentially have a cumulative effect of reducing impacts to campsites. This could also improve the opportunity for a motorized backcountry experience by reducing total campsite occupancy.

In the wild river there are approximately 31 miles of river available for overnight camping, fishing, and recreational activity. (Actual wild river mileage is 31.5 miles with an additional 1.3 miles from the wild river boundary to the Pittsburg Launch Ramp. The 0.5 miles between Hells Canyon Dam and the launch ramp at Hells Canyon Creek was not included in the analysis. The 1.3 mile section of river between Pittsburg Launch Ramp and the wild river boundary at the upper end of Fish Trap Bar is not included in the allocation for the analysis but all use allowed above Pittsburg would be administratively managed at the launch ramp). An average of one boat per mile spread over this distance could provide a motorized user with a backcountry experience by providing the potential for placing them

generally out of immediate sight and sound of other motorized users when not operating their boat, especially while in camp during morning and evening hours.

In the temporal allocation strategy proposed in Alternative E, it is conceivable that during the motorized week there would be a higher demand for trips by private motorized users and a resulting increase in stay length as a result of the value placed on the opportunity. An assumption is that the overall stay length would increase to an average of three days/trip.

Motorized Week - Wild River

As a result of the above analysis, the allocation of use under Alternative E for the motorized week was determined as follows:

Overnight Use

Private Power	-	Maximum Total*-	24 boats
Commercial Power	-	Maximum Total*-	6 boats
			Total 30 (equivalent to approximately 1 boat/mile)

- * The maximum is based on an average of three days per trip. Total boats within the wild river would fluctuate daily based upon the trip length of each powerboater.

Day-Use

Private Power	-	Maximum	-	included in above. The private powerboater determines the length of the trip.
Commercial Power	-	Maximum	-	12 boats per day, including the 6 overnight launches listed above (No more than 6 of the 12 daily launches can be overnight trips).

Daily Private Powerboat Launches - Motorized Week (Wild River)

Day of Week	Th	F	S	S	M	T	W	Total Days Average
Daily Launches	8	8	8	8	8	8	8	
Maximum boats at the end of average stay length (three days)	8	16	24	24	24	24	6*	= 126 / 7 = 18

Analysis of the limited launch allocation system for floaters (commercial and private combined) during 1982-1992 in the wild river indicates that the maximum utilization of launches during that 11 year time period was approximately 80% including commercial one day float trips. Using 80% as a basis for analysis of launch utilization, the following is an estimate of projected private powerboat launch utilization for Alternative E's allocation system listed above:

Day of Week	Th	F	S	S	M	T	W	Total Days Average
80% Utilization	6	6	6	6	6	6	6	= 42 / 7 = 6
Maximum boats at the end of three days if all camp overnight	6	12	18	18	18	18	6*	= 96 / 7 = 13.7

- * Since Wednesday is the last day of the motorized week, all powerboats would have to be off the river above Kirkwood but six of these boats could choose to remain on the river by camping between Pittsburg and Kirkwood on the last day. See following section for analysis.

Non-Motorized Week - Wild River (Pittsburg to Kirkwood)

Private Power - Use levels were determined based upon the following:

1. Overnight use (one boat per mile) at a level consistent with the opportunity for camping in the area above Kirkwood during the motorized week (Kirkwood to Pittsburg ramp is approximately six miles but there is also an opportunity for overnight lodging at Kirby Creek.)

Day of Week	Th	F	S	S	M	T	W	Total Days Average
Daily Launches (Overnight)	2	2	2	2	2	2	2	
Maximum boats at the end of average stay length (three days)	6	6	6	6	6	6	6	= 42 / 7 = 6

2. Providing an interpretive opportunity by allowing access to Kirkwood.
3. Maintaining a consistent level of launches above Pittsburg that stays the same during the non-motorized and motorized weeks for ease of administration and to avoid confusion by the public.

Commercial Power - Use levels were determined based upon the following:

1. Maintaining a constant level of access for commercial boats which originated downstream from Cache Creek during both the motorized and non-motorized weeks (8) in order to implement a commercial powerboat allocation system.
2. Maintaining a maximum of 12 commercial powerboats in the entire river.
3. Maintaining access to the river for Riggins-Grangeville area outfitters in addition to the commercial use originating from the Lewiston-Clarkston area.
4. Minimizing social conflict with floaters between Kirkwood and Pittsburg at a time when there would be a high number of floatcraft coming down river.
5. Recognition of an alternative to Kirkwood for commercial powerboaters originating downstream from the HCNRA northern boundary during the non-motorized week by providing a similar

interpretive opportunity for their passengers at Cache Creek on the upriver or downriver leg of their trip.

Scenic River - Pittsburg to HCNRA Northern Boundary

Objectives of an allocation for powerboaters would be to strive for a optimum daily average number of boats which would allow the motorized user to have a positive experience with a focus on recreation. This would include continuing to provide for day trips for fishing and sightseeing and reducing the potential for social conflict with other river users.

The scenic and study river includes approximately 39 miles of river available for overnight camping, fishing, and recreational activity. The one mile section of river downriver from Cache Creek to the HCNRA boundary is included in the allocation for the analysis but all use allowed into the scenic and study river would be administratively managed between Cache Creek and the ramp at Pittsburg Landing. A base level of one boat per mile spread over this distance could provide a motorized user with a sense of a backcountry experience (39 boats). However, scenic classification allows for a higher level of access to the river which could equate to a higher level of use. In determining use levels for the scenic river, a consideration should be made to allow for day-use by private boaters in this section of river and any use allocation based on scenic classification should accommodate private power day-use.

In the temporal allocation strategy proposed in Alternative E, it is conceivable that during the non-motorized week in the wild section, there will be a higher demand for trips by motorized users in the scenic section and a resulting increase in stay length as a result of the value placed on the opportunity for continued access to the Snake River. However, due to the importance of this section of the river for private power day-use, an assumption is that the overall stay length will continue to fall within the average of two days per trip.

As a result of alternating non-motorized weeks in the wild river, overnight use by commercial outfitters from the Riggins area could increase in the scenic section on an alternating week basis.

With the preceding considerations in mind, 1991 private powerboat use levels were analyzed by day of week to examine the feasibility of accommodating existing use within an allocation system that would level use patterns, provide a reasonable level of access for private powerboaters and cause the least amount of impact to existing use patterns. This would eliminate high fluctuations in use with the intent to lower the potential for social conflict among river users.

Commercial powerboat use was based on a 10% increase in use in the scenic river over existing use (Alternative A) and adjusted by applying the LAC planning process recommendation for commercial powerboats to the entire river corridor to account for displaced use during the non-motorized week.

As a result of the analysis, the allocation of use under Alternative E was determined as follows:

Overnight Use - Scenic River

Private Power	- Maximum	- 10/20 boats per day
Commercial Power	- Maximum	- 6 boats per day
		Total 16/26

Day-Use - Scenic River

Private Power	- Maximum	- included in above. The private power-boater determines the length of the trip.
Commercial Power	- Maximum	- 12 boats per day, with a maximum of 8 that could originate downstream from Cache Creek and including a maximum of 6 for overnight use.

Daily Private Powerboat Launches - Scenic River

While use would be allowed every day in the scenic river, the tables below begin on Thursday in order to provide a comparison of use in the wild river during the motorized week. Friday, Saturday, and Sunday provide for a greater number of launches based on historic recreational use patterns (reference analysis file). Memorial Day, July 4, and Labor Day would also have an allocation set at 20 boats per day. If July 4 fell on a Tuesday or Thursday, the preceding Monday or following Friday (respectively) would also have an allocation set at 20 boats per day.

Day of Week	Th	F	S	S	M	T	W	Total Days Average
Daily Launches	10	20	20	20	10	10	10	= 100 / 7 = 14.3
Maximum boats at the end of two days if all camp overnight	20	30	40	40	30	20	20	= 200 / 7 = 28.6

Analysis of the limited launch allocation system for floaters (commercial and private combined) during 1982-1992 in the wild river indicates that the maximum utilization of launches during that 11 year time period was approximately 80% including commercial one day float trips. Using 80% as a basis for analysis of launch utilization, the following is an estimate of projected private powerboat launch utilization for Alternative E's allocation system for the Scenic River listed above:

Day of Week	Th	F	S	S	M	T	W	Total Days Average
80% Utilization	8	16	16	16	8	8	8	= 80 / 7 = 11.4
Maximum boats at the end of two days if all camp overnight	16	24	32	32	24	16	16	= 160 / 7 = 22.9

Implementing Launch Allocations Under Alternative E

A change in the launch allocation system under Alternative E would not occur until monitoring in two out of three consecutive years indicated one of the following changes:

1. A 25% change in average length of stay in the scenic river (with two days per trip average being the standard) and a 17% change in average length of stay in the wild river (with three days per trip average being the standard).

2. The daily launch limits for private powerboats on weekdays (10 launches per day) was exceeded more than 10% of the days during the primary season (12 days using existing dates for primary seasons). Days associated with holiday periods would only be included in calculation of use for Weekend days (Friday-Sunday).

Adjusting Use Allocations In the Scenic River Based on Monitoring

Monitoring would occur on a rolling, yearly basis analyzing the previous two years of use. An increase in use would result in reducing launches proportionately. A decrease in use would allow an increase in launches proportionately up to the maximum allocation of 10/20.

Based on projected launch utilization and ability to adjust launch allocations on a yearly basis, holders of wild river permits during the on week could use the scenic river also but would not be included in the allocation for the scenic river.

Analysis of the existing situation at Cache Creek for 1991 and 1992 indicates that weekdays (Monday through Thursday) are currently at an average of five boats per day with several days reaching a high of nine boats per day. Weekends (Friday through Sunday) are currently at an average of 15 boats per day with about 1/3 of the days over the 20 boat daily launch limit listed above. There are adequate days available to shift this use to other weekends or different days on the same weekend to provide powerboat access. Use launching from Pittsburg into this section of the river on the non-motorized week in the wild river would increase these averages but could easily be absorbed within the 10/20 launch allocation.

Under the existing situation, a launch allocation system would be implemented for weekends (Friday, Saturday, and Sunday) in the scenic river, but not for weekdays. Monitoring standards would be sufficient to determine if a launch allocation system would be necessary in the future for weekdays in the scenic river.

ALTERNATIVE F

Private and commercial powerboat use levels were determined based on no powerboat use in the wild river year round and a 28% increase in existing use (Alternative A) occurring in the scenic river. This increase in use would provide some additional access for powerboat use displaced from the wild river year-round.

ALTERNATIVE G

Powerboat numbers in Alternative G were derived from an examination of private powerboat use levels in July and August of the 1980's and commercial powerboat use levels throughout the primary season in the 1980's. The time period of July and August has historically represented the period of highest demand for private powerboat access during the primary season. The Hells Canyon Visitor Profile and Recreation Use Study examined perceptions of users during the 1988 primary season. The study found that a large majority of river users were satisfied with their river recreation experience at that time. An assumption was made that if a large majority of visitors generally had a good river experience in 1988, then levels of powerboat use even during periods of time historically in greatest demand by powerboaters (July and August) were acceptable at that time.

The study found that 35% of respondents to the survey questionnaire experienced what they felt were unacceptable levels of crowding in two specific areas in 1988. These areas included from Rush Creek

to Pittsburg (wild) and near the mouth of the Salmon River (scenic). A second assumption based upon use records was made that these two areas had characteristics that attracted visitors including the following:

Rush Creek to Pittsburg

1. The majority of campsites in the wild river occur in this section.
2. This section of the river accounts for the majority of powerboat use in the wild river due in part because it is less technically challenging than the river above Rush Creek.
3. The majority of powerboaters launching at Pittsburg Landing go upriver into this section of river and the majority of floaters that launch trips on the Snake River take out at Pittsburg.
4. This section of river accounts for the largest majority of jetback trips for floaters.
5. Kirkwood Historic Ranch is a destination within this section of river. The section of river accounts for the highest percentage of commercial powerboat trips.

Mouth of the Salmon

1. A heavy concentration of floaters enter the Snake River from the Lower Salmon at this location
2. The river channel narrows significantly just below the mouth of the Salmon on the Snake River, constricting navigation when boats meet in this section.
3. The mouth of the Salmon represents a destination for many powerboaters traveling upstream, in part because it is less technical water and name recognition.
4. This area has a high concentration of powerboats as a result of many new boaters with lower skill levels that are in close proximity from the Lewiston-Clarkston area, the lower degree of difficulty in traveling in this section of river, and powerboaters passing through this area as they travel farther upriver or come downriver at the end of a trip.

A third assumption was that crowding would be more likely to occur when peaks in use occurred. Since float traffic on the Snake was limited to a specific number of daily launches, the majority of peaks in use could be attributed to unlimited powerboat use. Unlimited use could cause significant fluctuations in the number of daily powerboat launches. Therefore, if peaks in powerboat use could be eliminated by limiting the number of daily powerboat launches, the perception of crowding could be significantly and positively affected.

A fourth assumption was that in order to assure protection and enhancement of the recreation ORV, a large majority of users would have to feel that the quality of the experience was being maintained. A simple majority of users (51%) would not be an indication of protection and enhancement of the ORV as required by the Wild and Scenic Rivers Act. In the 1988, nearly 75% of the individuals who responded to the survey stated that interactions with others outside of their group had not affected their trip. Less than 25% of visitors perceived any minor or major problems when they encountered other groups during their trip. This would indicate that the level of use at that time that determined the effects of social encounters between users was still at a level that enhanced the experience for the vast majority of users.

In addition, more than 75% of all respondents to the survey heavily favored four specific guidelines for managing the river. One of these guidelines which was highly supported by more than 80% of all

types of river users (commercial and private, floaters and powerboaters) who selected it as important was maintenance of the existing experience. This guideline addressed protection and enhancement of the recreation and scenic ORV's. The high positive response from the public to maintain the existing experience was based on conditions on the river in 1988 and indicate that the majority of users at that time considered the quality of the recreation experience to be high, indicative that protection and enhancement of the recreation ORV was occurring during that time.

In consideration of the above assumptions, private and commercial powerboat use levels were also analyzed in response to public comments received on the DEIS. These included the following factors:

1. A need to manage the river primarily for shared use but with some opportunity for periods of quiet when river users were not affected by the sights and sounds of others.
2. A need to provide a variety of recreation experiences to meet user expectations compatible with a wild and scenic river designation, respectively.
3. A need to limit the amount of commercial use throughout the river corridor while assuring adequate services for visitors at all portals and continuation of a viable outfitting industry.
4. In order to address the validity of the response from the public concerning the need to limit commercial use of the river, a review of the Crowell decision and use trends over the years was necessary.

The Crowell decision of 1983 was specific to allowing unlimited use by private powerboaters only. However, the decision stated that "This decision does not change or affect the number, issuance, or terms of special use permits for commercial power or float boating operations." The original management direction specified a maximum of nine special use permits for the wild river (two from the Dam and seven from the Pittsburg end of the wild river) beginning in 1982 with any additional permits restricted to operate in the wild river outside of the primary season or directed to the scenic river year-round. It also specified that numbers of trips per day and operating schedules would be specified in the special use permits.

When the original management plan was revised to incorporate the appeal decisions, limits on commercial powerboating, which were not supposed to have been affected by the Crowell decision, were inadvertently included in the management direction for unlimited powerboat use. User comments received from the DEIS indicate that the level of commercial powerboat use has become an important issue that needs to be resolved. Public comment indicated that higher levels of use would not be considered fair by private users. Thus, the dilemma that has been created is two-fold: the oversight in 1983 has resulted in commercial powerboat use reaching a level where many river users believe the current levels of use do not protect and enhance the overall recreation experience, and; the commercial businesses have grown to fill a needed service to the public for access to the resource.

Based upon the above factors, use levels of private and commercial powerboaters in the wild river were examined since the Crowell decision of April 21, 1983 with particular attention to the analysis of historic use trends to determine distinctive patterns of use and the use levels in 1988 for comparison purposes with other years. Of particular concern was the desire to allow the maximum number of powerboats possible, without diminishing the experience of either powerboaters and floaters. Another concern was the need to provide the opportunity for all users to achieve the type of recreation experience they desired. These concerns led to analysis of an alternative that could manage the river for shared use to address four common themes:

1. To provide levels of shared use by motorized and non-motorized users that would continue the trend identified by the user survey in which the majority of visitors felt that the recreation experience within the canyon was acceptable, i.e., protection and enhancement of the recreation ORV.
2. To limit the number of daily powerboat launches to levels that would resolve issues of crowding that could be attributed to peak use days.
3. To provide a variety of recreation opportunities to meet user expectations whenever possible, but managed at levels, in areas, and at times that would have the least impact on other users' opportunities.
4. To maintain daily access to the wild river from all portals throughout the primary season for both private and commercial powerboats.

Private and Commercial Powerboat Use in the Wild River in Alternative G

Objectives of an allocation system would be to strive for a maximum daily number of launches that would allow the motorized user to experience a backcountry river trip and protect and enhance the quality of the river experience for both motorized and non-motorized users with the least disruption to river access for both types of users. Use levels would reflect a national perspective.

Private Powerboats

Use levels for private powerboaters were based on averaging the number of launches per day on a monthly basis for July and August (after factoring in a non-compliance rate of 40% to the total number of permits for each day during the month) during the 1980s' following the Crowell decision. The days with the highest average launches per day were identified (Friday and Saturday) and compared with the same period in 1988. This average number of daily launches (6) was used to set the daily launch limit for the primary season. This would allow the maximum number of powerboat launches, avoid peaks in use and meet the needs of visitors as identified in the user survey.

Commercial Powerboats

Use levels for commercial powerboaters were based on review of the average number of daily launches into the wild river in the 1980's after the Crowell decision, comparison of commercial use patterns in the scenic river, and adjustment in use that would represent fair numbers when compared with access limitations for private powerboaters.

Use levels for commercial powerboaters were also based upon the following:

- Maintaining a specific level of access for commercial boats in order to implement a commercial powerboat allocation system.
- Maintaining access to the wild river for Riggins-Grangeville area outfitters in addition to the commercial use originating from the Lewiston-Clarkston area.
- Minimizing social conflict with floaters when considering the combined total of commercial and private powerboats on the river at one time.
- Recognition of an alternative to Kirkwood for commercial powerboaters originating downstream from the HCNRA northern boundary by providing a similar interpretive opportunity for their

passengers at Cache Creek on the upriver or downriver leg of their trip to off-set any loss in access to Kirkwood as a result of daily use limitations.

Primary Season - Wild River

As a result of the above analysis, the allocation of use under Alternative G for the primary season would be managed as follows:

Maximum Launches per Day - Wild River

Private Power	Maximum	- 6 boats per day. The private powerboater determines the length of the trip and areas of operation.
Commercial Power	Maximum	- 7 boats per day with limits on areas of operation and length of trip.

Maximum Projected Use - Wild River

Private power	- Maximum Total*-	18 boats
Commercial power	- Maximum Total*-	6 boats
Total 24 (equivalent to approximately 1 boat/1.25 miles)		

The maximum is based on an average of three days per trip for private powerboaters and one day per trip for commercial powerboaters. Total boats within the wild river would fluctuate daily based upon the trip length of each powerboater.

Daily Private and Commercial Powerboat Launches - Primary Season (Wild River)

Maximum Utilization

Day of Week	S	M	T	W	Th	F	S	Total Days Average
Private Power Daily Launches	6	6	6	6	6	6	6	
Maximum boats at the end of average stay length (3 days)	18	18	18	18	18	18	18	= 126 / 7 = 18
Commercial Power Daily launches	7	7	7	7	7	7	7	= 49 / 7 = 7
Total Maximum Power	25	25	25	25	25	25	25	= 175 / 7 = 25

Analysis of the limited launch allocation system for floaters (commercial and private combined) during 1982-1992 in the wild river indicates that the maximum utilization of launches during that 11 year time period was approximately 80% including commercial one day float trips. Commercial powerboat use in the wild section would be expected to remain near 100% utilization as a result of limits on daily launches. Using 80% as a basis for analysis of launch utilization for private powerboats, the following

is an estimate of projected private powerboat launch utilization (rounded to the nearest whole number) for Alternative G's allocation system listed above:

Day of Week	S	M	T	W	Th	F	S	Total Days Average
Private Power								
80% Utilization	5	5	5	5	5	5	5	$= 35 / 7 = 5$
Maximum boats at the end of three days if all camp overnight	15	15	15	15	15	15	15	$= 105 / 7 = 15$
Commercial Power	7	7	7	7	7	7	7	$= 49 / 7 = 7$
All Power	22	22	22	22	22	22	22	$= 154 / 7 = 22$

Non-Motorized Period - Wild River

Powerboat use levels were determined based upon the following:

1. Day-use only to avoid congestion that would result from overnight camping by powerboaters in confined sections of the wild river that were open for motorized use.
2. Providing an interpretive opportunity by allowing access to Kirkwood for the majority of powerboat users.
3. Maintaining a consistent level of launches into the wild river (12 per day) for ease of administration and to avoid confusion by the public (same number of daily launch reservations) without the extra daily launch from Pittsburg to Kirkwood to avoid congestion since the majority of powerboat use would be concentrated in the section of the river between Pittsburg and Kirkwood.
4. Maintaining access for private and commercial powerboating at both ends of the wild river corridor.

Following is a summary of the effects of the non-motorized period on powerboat use in the wild river corridor:

Maximum Utilization

Day of Week	S	M	T	W	Th	F	S
Private Power							
Wild River (all sections)	6	0	0	0	6	6	6
Dam to Wild Sheep		1	1	1			
<u>Pittsburg to Kirkwood</u>		<u>5</u>	<u>5</u>	<u>5</u>			
Total Daily Launches	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>
Maximum overnight boats at the end of average stay length (3 days)	0*	0	0	0	6	12	18

Commercial Power							
Wild River (all sections)	7				7	7	7
Dam to Wild Sheep		2	2	2			
<u>Pittsburg to Kirkwood</u>		<u>4</u>	<u>4</u>	<u>4</u>			
Total Daily Launches	<u>7</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>7</u>	<u>7</u>	<u>7</u>

All Power							
Wild River (all sections)	13	0	0	0	13	13	13
Dam to Wild Sheep		3	3	3			
<u>Pittsburg to Kirkwood</u>		<u>9</u>	<u>9</u>	<u>9</u>			
Total daily launches	<u>13</u>	<u>12</u>	<u>12</u>	<u>12</u>	<u>13</u>	<u>19</u>	<u>25</u>

- * No overnight use by private or commercial powerboats in the wild river corridor on Sunday night. All powerboats would be required to end their trip in the wild river corridor on Sunday. As a result, all powerboat launches into the wild river on Sunday would be authorized for day-use only. Boats launching into the wild river from Pittsburg on Sunday, Monday, Tuesday, or Wednesday could use the wild river upstream as far as Kirkwood during the day and overnight in the scenic river.

Scenic River - Pittsburg to HCNRA Northern Boundary

Objectives of an allocation for powerboaters would be to strive for a optimum daily average number of boats which would allow the motorized user to have a positive experience with a focus on recreation. This would include continuing to provide for day trips for fishing and sightseeing, and focus on addressing river recreation use levels from a regional river access perspective, including powerboat access to the Snake River as a focal point for a recreation experience in comparison with Lower Salmon River floater access which focuses on the Snake River as a travel corridor necessary for termination of a trip.

The scenic and study river includes approximately 39 miles of river available for overnight camping, fishing, and recreational activity. The one mile section of river downriver from Cache Creek to the HCNRA boundary is included in the allocation for the analysis but all use allowed into the scenic and study river would be administratively managed between Cache Creek and the ramp at Pittsburg Landing. A base level of one boat per mile spread over this distance could provide a motorized user with a sense of a backcountry experience (39 boats). However, scenic classification allows for a higher level of access to the river which could equate to a higher level of use. In determining use levels for the scenic river, a consideration should be made to allow for day-use by private boaters in this section of river and any use allocation based on scenic classification should accommodate private power day-use.

Due to the importance of this section of the river for private power day-use, an assumption is that the overall stay length would continue to fall within the average of two days per trip, even if some use from the wild river is displaced to the scenic river.

Private Power

With the preceding considerations in mind, 1991 private powerboat use levels were analyzed by day of week to examine the feasibility of accommodating existing use within an allocation system that would level use patterns, provide a reasonable level of access for private powerboaters, and cause the least amount of impact to existing use patterns. This would eliminate high fluctuations in use with

the intent to lower the potential for social conflict among motorized and non-motorized river users. Historic use trends indicate that higher levels of use would be appropriate on weekends (Friday through Sunday) in order to maintain the recreation experience that developed over many years.

Commercial Power

Use levels for commercial powerboats were based on review of the average number of daily launches into the wild river in the 1980's following the Crowell decision, comparison of commercial use patterns in the wild river and adjustment in use to reflect the Crowell decision and the desire of the public to limit commercial use in the river corridor.

As a result of the analysis, the allocation of use under Alternative G was determined as follows:

Maximum Launches per Day - Scenic River

Private Power	Maximum	- 10 boats per day on weekdays (Mon-Thurs), 20 boats per day on weekends (Fri-Sun). The private powerboater determines the length of the trip and areas of operation within the scenic river.
Private Power	Maximum	- 5 boats per day for day-use only on weekends (Fri-Sun). Operations would be limited to the area between Cache Creek Ranch and the mouth of the Salmon only.
Commercial Power	Maximum	- 6 boats per day with limits on areas of operation and length of trip. Total Weekdays = 16 Launches Total Weekends = 31 Launches

Maximum Projected Use - Scenic River

Private power	-	Maximum total*-	Weekdays = 20 Boats
Commercial power	-	Maximum total*-	Weekdays = 6 Boats
		Total	Weekdays = 26 Boats

Maximum Projected Use - Scenic River

Private power	-	Maximum total*-	Weekends = 40 Boats
Private power	-	Maximum total*-	Weekends = 5 Boats (day-use only)
Commercial power	-	Maximum total*-	Weekends = 6 Boats
		Total -	Weekends = 51 Boats

* The maximum is based on an average of two days per trip for private powerboaters and one day per trip for commercial powerboaters. Total boats within the scenic river would fluctuate daily based upon the trip length of each powerboater.

Daily Private and Commercial Powerboat Launches - Scenic River

While use would be allowed every day in the scenic river, Friday, Saturday, and Sunday provide for a greater number of launches for private powerboats based on historic recreational use patterns (reference analysis file). Memorial Day, July 4, and Labor Day would also have an allocation set at

20 boats per day. If July 4 fell on a Tuesday or Thursday, the preceding Monday or following Friday (respectively) would also have an allocation set at 20 boats per day. Commercial powerboat use would remain constant throughout the week at six launches per day.

Day of Week	S	M	T	W	Th	F	S	Total Days Average
Private Power								
Daily Launches	25	10	10	10	10	25	25	$= 115 / 7 = 16.4$
Maximum private powerboats at the end of two days if all camp overnight	45	30	20	20	20	35	45	$= 215 / 7 = 30.7$
Commercial Power								
Daily Launches	$\frac{6}{51}$	$\frac{6}{36}$	$\frac{6}{26}$	$\frac{6}{26}$	$\frac{6}{26}$	$\frac{6}{41}$	$\frac{6}{41}$	$= \frac{42}{7} = 6$
Total All Power								$= 247 / 7 = 35.3$

Analysis of the limited launch allocation system for floaters (commercial and private combined) during 1982-1992 in the wild river indicates the maximum utilization of launches during that 11 year time period was approximately 80% including commercial one day float trips. Commercial powerboat use in the scenic section would be expected to remain near 100% utilization as a result of limits on daily launches. Using 80% as a basis for analysis of launch utilization for private powerboats, the following is an estimate of projected private powerboat launch utilization for Alternative G's allocation system for the Scenic River listed above:

Day of Week	S	M	T	W	Th	F	S	Total Days Average
80% Utilization	16	8	8	8	8	16	16	$= 80 / 7 = 11.4$
80% utilization of day-use only boats	4					4	4	Not applicable
Maximum boats at the end of two days if all camp overnight	36	24	16	16	16	28	36	$= 172 / 7 = 24.6$
Commercial Power								
100% utilization	$\frac{6}{42}$	$\frac{6}{30}$	$\frac{6}{22}$	$\frac{6}{22}$	$\frac{6}{22}$	$\frac{6}{34}$	$\frac{6}{42}$	$= \frac{42}{7} = 6$
Total All Power								$= 247 / 7 = 35.3$

Implementing Launch Allocations Under Alternative G

A change in the launch allocation system under Alternative G would not occur until monitoring in two out of three consecutive years indicated one of the following changes:

1. A 25% change in average length of stay in the scenic river (with two days per trip average being the standard) and a 17% change in average length of stay in the wild river (with three days per trip average being the standard).
2. The daily launch limits for private powerboats on weekdays (10 launches per day) was exceeded more than 50% of the days during the primary season (12 days using existing dates for primary seasons). Days associated with holiday periods would only be included in calculation of use for weekend days (Friday-Sunday).

Implementing and Adjusting Use Allocations in the Scenic River

Monitoring would occur on a rolling, yearly basis analyzing the previous two years of use. An increase in use would result in reducing launches proportionately. A decrease in use would allow an increase in launches proportionately up to the maximum allocation of 10/20. The five launches for day-use only from Cache Creek to the mouth of the Salmon on Friday through Sunday would not be adjusted since they are for day-use only.

Based on projected launch utilization and ability to adjust launch allocations on a yearly basis, holders of wild river permits during the on week could use the scenic river also but wouldn't be included in the allocation for the scenic river. This would be considered pass through traffic similar to floaters who obtain a trip permit to launch in the wild river but continue into the scenic river on the same permit or Lower Salmon floaters who use the Snake River as a travel corridor at the end of their trip.

Analysis of the existing situation at Cache Creek for 1991 and 1992 indicates that weekdays (Monday through Thursday) are currently at an average of five boats per day with several days reaching a high of nine boats per day. Weekends (Friday through Sunday) are currently at an average of 15 boats per day with about 1/3 of the days over the 20 boat daily launch limit listed above. There are adequate days available to shift this use to other weekends or different days on the same weekend to provide powerboat access. The additional five launches per day for day-use only to the mouth of the Salmon would absorb some of this use but not enough to resolve peak use days. Use launching from Pittsburg into this section of the river on the 24 weekdays during the non-motorized period in the wild river would increase these averages but could easily be absorbed within the 10/20 launch allocation.

Based upon the above analysis which represents the existing situation, a launch allocation system would be implemented for weekends (Friday, Saturday, Sunday) in the scenic river, but not for weekdays. Monitoring standards would be sufficient to determine if a launch allocation system would be necessary in the future for weekdays in the scenic river. Once standards were exceeded by either private power or private float use on weekdays, a launch allocation system would be implemented for both groups in order to assure fair treatment in the method that users gain access to the river. Prior to implementation, a self-issued permit would be required for both private floaters and private powerboaters on Monday through Thursday.