

CAHA #1677

Van Dyke, Nancy

From: Mansfield, Carol A. [carolm@rti.org]
Sent: Tuesday, March 31, 2009 3:26 PM
To: Van Dyke, Nancy
Subject: FW: ORV count estimates
Attachments: YearlyORVEstimates.xls

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From: Loomis, Ross
Sent: Thursday, March 12, 2009 12:09 PM
To: Andrea_Stacy@nps.gov
Cc: John_Notar@nps.gov; jwu@air-resource.com; Mansfield, Carol A.; Sandra_Hamilton@nps.gov
Subject: ORV count estimates

We've built a range of estimates to capture the upper bound ORV use, and would like to go over our methodology to make sure that it works for you. I'm not sure who else would be need to be involved in a call to discuss these estimates further, but I am available to have such a discussion.

Briefly:

The best data we have for visitor distribution by week is 2007/2008 housing rental data we collected. We assume that the distribution of ORV use follows the same trend as housing rentals, for instance the maximum number of ORV trips occurred the week of August 11 -17, and 1.68% of that number of trips occurred the week of January 6 - 12.

To determine how many ORV trips would constitute the maximum number, we used both the flyover data and the housing rental data. The number of ORVs counted in flyovers for both July 4th and Memorial Day were assumed to be the number of trips of a representative weekend day that week. We used the maximum, average and minimum values of both holidays to construct 6 different estimates. The rental data was then used to adjust the flyover data to the maximum weekend day. For example, since 2,938 ORVs were counted on the beach on Memorial Day 2007, and houses were only 73.8% occupied, we assume that the maximum weekend number of ORVs would be:
 $2,938 / .738 = 3,979$ ORVs.

4/6/2009

Based on some of the ramp counter data, we assume that weekdays have, on average, half the traffic of weekend days, giving us an estimated maximum weekday ORV trip count of 1,990, for a maximum weekly total of 17,906.

Adjusting this weekly maximum by the rental data for each week, we arrive at an annual estimate of 395,225 ORV trips. The table below shows the other estimates using alternate flyover values.

	Memorial Day			July 4th		
	MAX	AVG	MIN	MAX	AVG	MIN
TOTAL ORVS	395,225	254,327	151,337	332,223	214,177	110,320

While the flyover data represents a minimum of the number of ORV trips taken on those holidays, the 395,000 value is likely an overestimate. Rather than the flyover days being representative of a typical weekend day, they are likely well above average. Thus, taking the step to adjust them up to an even higher maximum value using rental data will make the estimate even more conservative. We believe that using this method, we have created a range of values that captures the upper bound of ORV use.

Attached is the spreadsheet that calculates these estimates, with the results highlighted in gray.

Ross

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Annual visitors =
2,200,000

Annual ORV visits = ?