

The Pensus Group appreciates the opportunity to comment on the Revised Draft Environmental Assessment ("Revised EA") for the Proposed Construction and Operation of the Scorpion Bay Marina and Yacht Club, which was issued on October 24, 2006. The Pensus Group submitted significant comments on the Initial Draft EA on August 18, 2006. Unfortunately, we find that most of the flaws pointed out in those comments were not addressed in the Revised EA. Rather than repeat the points previously made, the Pensus Group hereby incorporates by reference its August 18, 2006 comments.

I. BOR Has Never Established a Need for this Project

A. BOR Must Independently Assess the Need for the Marina

Instead of a needs assessment, the July Draft EA simply referred back to the alleged commitment made to a marina project in the Plan 6 EIS. Apparently recognizing the fundamental problems with this approach, the BOR now attempts to punt the issue of the need for this project to the County. The Revised EA states that "as the responsible recreation land management agency for LPRP, MCPRD has determined there is a need for a marina and its associated amenities as part of the LPRP." Revised EA at 15. There are a number of problems with this statement. First, the Revised EA provides no discussion as to the basis for the County's determination that a marina is needed. Second, and more fundamental, NEPA requires BOR to independently assess the purpose and need of a project before the agency becomes committed to it – the Bureau cannot rely on the County to supply that analysis. *See Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991). BOR is the agency responsible for managing the LPRP "in an environmentally and economically sound manner in the interest of the American public" – it cannot delegate that obligation to the County.

B. The Purpose of the Project is Not Adequately Supported

The Revised EA states that the "Purpose of the project is to provide expanded boating access, additional boat storage capacity, and associated recreational facilities in a manner that will address the increasing demand for these services, provide financial resources for the maintenance of LPRP, and maintain consistency with the MRP." Revised EA at 3-4. (emphasis added). However, nowhere in the Revised EA is there any evidence provided to support the assertion of "increasing demand" for marina services. Nor is there any evidence that demand cannot be met through existing marina facilities. Before BOR can justify the Need and Purpose of a project, it must determine whether there actually is an "increasing demand for these services." Bald assertions of "increasing demand" do not meet NEPA's requirements. In fact, BOR itself admits that there is no trend towards increasing boating on the Lake: "Quantifying the increase in the number of watercraft into the future, however, is difficult, since there has been no consistent trend based upon data from the past several years." Revised EA at 33. It is unclear how BOR can justify the statement that the purpose of the project is to address increasing demand when the Bureau itself found there is no such trend.

The Revised EA also provides that this action is needed "because recreational developments identified in the MRP and Appendix C of the 1984 EIS have not yet been implemented." Revised EA at 4. This is incorrect. As pointed on in the Pensus Group's

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comments on the initial Draft EA, the recreational needs identified in the MRP and 1984 EIS have already been more than fulfilled with the development of the Pleasant Harbor Marina.¹

On Page 42 of the Revised EA, the BOR also provides that “a second marina at Lake Pleasant would benefit the boating public by providing a choice of marina services.” Revised EA at 42. The Revised EA provides no evidence, however, that the public wants a “choice” of marinas, or that the demand for marina services can support more than one marina. Indeed, if an actual needs assessment had been performed, and Lake visitors had been surveyed about future development of the Lake, BOR might well have found that visitors are more concerned about overcrowding on the Lake – and the concomitant safety risk – than they are about having a choice of marina facilities. In any event, providing a choice of marina facilities is clearly not a sufficient basis for undertaking a project that will significantly impact the environment and boaters’ safety on the Lake.

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II. The Revised EA Does Not Address the Fact that the Carrying Capacity of the Lake Has Already Been Exceeded

One of the most conspicuous flaws in the Revised EA is its continued failure to include any assessment of how many boats Lake Pleasant can safely carry at one time. Despite significant public comments on this issue, both at the scoping stage and on the July Draft EA, BOR has not even attempted to address the actual carrying capacity of Lake Pleasant. It is inconceivable how BOR can fully assess the impacts of building of a marina with a 1,000 boat capacity without a quantifiable, objective study of the practical limits on boating activity at the Lake. As discussed in the Pensus Group comments filed in August, the capacity of the Lake has direct impacts on public safety and resource management. Moreover, resource capacity, overcrowding and accidents are already serious issues on the Lake.

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The Revised EA does estimate the number of boats currently on the Lake, and the number that will be added by the project, but never provides a resource management capacity, benchmark or safety threshold with which to compare these numbers. Instead, the Revised EA appears to suggest that the number of boats on the Lake simply changes the type of experience boaters may have – changing from a suburban to urban experience as the number of boats increase. However, carrying capacity is not just a matter of discerning the type of recreational “experience” boaters may have – it is a fundamental calculation for recreational planning that impacts public safety and resource usage.

The Revised EA recognizes that over-crowding may lead to safety issues, but makes no attempt to address the issue. Instead, the Revised EA states that the County will initiate a study,

¹ The 1995 study bases a great deal of its market indicators upon the rapid absorption of slips at Pleasant Harbor during the previous year and the fact that there was a waiting list for slips. This is no longer the case. As of October 31, 2006, Pleasant Harbor Marina has over 153 vacancies. Clearly, if there is vacancy at Pleasant Harbor Marina, then the presumption of demand set forth in the Revised EA is faulty. Contrary to proper planning and economic assessment, neither BOR, nor the County ever sought this information before it made a conclusion that a second marina is still a necessary addition to Lake Pleasant.

within a year *after* the marina begins operation, on the demand and capacity of the lake. This is a complete derogation of BOR's responsibilities as a resource manager, including its obligations under NEPA. The capacity study is a crucial part of the planning process that must be performed now, as part of the NEPA process, and its results must inform the need for and scope of the project. To perform the study a year after the Marina is complete serves little purpose. What will happen if it is determined that the capacity of the Lake has been greatly exceeded? Will BOR close the marina? The public boat ramp? These questions must be answered now, by BOR – not left to the County to sort through after the project is complete.²

BOR also states that the County Sheriff's Office "has the authority to close down the public boat ramps in the event it believes the quantity of watercraft on the water creates a safety hazard." Revised EA at 33. Once again BOR shirks its responsibility by deferring fundamental issues to be handled at some future date by the County. How will the Sheriff's Office know when to close the ramps when BOR has refused to define the number of boats the Lake can safely carry? This is exactly the purpose of a capacity study – "a trigger or signal for managers, permittees, the general public ... [to consider a] range of reasonable management responses."³ It is BOR's responsibility to define a capacity limit in order to set the triggers for when the local managers can and should take action. Here, however, there are absolutely no criteria or guidance given to the public or the County on capacity or how to reduce accidents and resource conflicts. BOR apparently expects local managers to figure it out as they go along. Public safety cannot be handled so cavalierly.

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A. The Carrying Capacity of the Lake Defined by BOR in 1984 Has Already Been Exceeded

The only carrying capacity study of Lake Pleasant was done by BOR in 1984, and that study limited the number of boats that the Lake could carry to 546. Nowhere in the DEA or the Revised EA does BOR even acknowledge that the agency has already concluded that the Lake can support no more than 546 boats.⁴ BOR cannot simply ignore the carrying capacity of the Lake – it must either explain how the new marina will impact the current capacity of 546 boats

² BOR's attempt to delegate such matters to the County is particularly inappropriate because the County has a clear conflict of interest. The Revised EA itself states that the County wants the project because it will "provide financial resources for the maintenance of LPRP." With a direct pecuniary interest in the project, the County is not an entity that BOR can turn to for objective analysis.

³ Visitor Capacity on Public Lands and Waters; Making Better Decisions, The Federal Interagency Task Force on Visitor Capacity on Public Lands, Haas, G.E. 2002.

⁴ As discussed in the Pensus Group's July Comments on the Draft EA, the capacity figure of 546 is likely too high, as the calculation did not take into account issues such as unusable areas of the Lake.

or it must undertake a new carrying capacity study to provide empirical evidence as to why the results of the 1984 study are no longer valid.⁵

BOR cannot approve the placement of more boats on the lake when its own numbers show that current use exceeds the capacity. The Revised EA provides that the Lake currently carries an average of 1660 boats on a peak weekend day. Thus, the carrying capacity of 546 has already been greatly exceeded. In addition, the Revised EA admits that the park was closed in 2005 because of overcrowding. Revised EA at 30. BOR nonetheless proposes to add another 236 to 583 boats per day. (DEA page 30-31). To propose a project that would further burden the Lake beyond its carrying capacity without any examination of the issue violates NEPA. In addition, proposing to increase the number of boats on an already over-burdened Lake violates the statutory obligation of BOR to manage, develop and protect water resources in an environmentally and economically sound manner.

B. Even if the 1984 Carrying Capacity Were Recalculated Based on BOR's New Assumptions Regarding Surface Area, the Capacity Would Already Be Exceeded by Current Usage

As addressed below, the Revised EA overestimates the surface area of the Lake and underestimates the number of watercraft on the Lake. However, even assuming that the Revised EA numbers are correct, those numbers themselves indicate that the Lake is well beyond capacity today. Applying the Revised EA number of 7,432 surface acres to the carrying capacity equation used by BOR in the 1984 EIS results in a maximum carrying capacity of 723 boats.⁶ However, according to Appendix C of the Revised EA, there are an *average* of 1660 boats launched on a peak season weekend day. Thus, on peak usage days the carrying capacity calculated based on BOR's assumptions is exceeded by over 900 boats.

C. The Arizona Outdoor Recreation Coordination Commission's Guidelines on Boats per Acre Have Already Been Exceeded

The Arizona Outdoor Recreation Coordination Commission (AORCC) established an allocation of 10-20 acres/boat in the determination of physical carrying capacity. Using this number, there can be only 323 to 647 boats on Lake Pleasant at any one time during low pool

⁵ The Revised EA lists the watercraft capacities for 4 lakes within the Tonto Nation Forest, ranging from 2.9 acres per boat to over 10 acres per boat, but BOR does not even attempt to use these numbers for any assessment of what the capacity of Lake Pleasant may actually be.

⁶ The RDEA improperly assumes that the current "low-pool" of approximately 1648 feet, which equates to 6477 gross acres of surface area is representative of the way the Lake will operate. CAP is under no obligation to maintain a minimum water elevation of 1648. In fact, CAP has established the operating range of the reservoir to be 1552 feet at minimum elevation and 1702 at maximum elevation. That means CAP has the right and means to draw down the reservoir to 1552. At minimum water surface elevation of 1552, Lake Pleasant will have only 1411 gross acres surface area. BOR has apparently made no effort to obtain from CAP any information concerning future CAP levels.

(August and September), which was 1648 in 2006. Again, using this number, there can only be 379 to 759 boats at one time on Lake Pleasant during the month of July. According to the Revised EA there are 1660 boats a day on the Lake on a peak season weekend day. With a turn over rate of 2 that means there are 830 boats on the Lake at a time. It is important to note that the AORCC numbers are general numbers and do not appear to include other reduction factors such as social carrying capacity, shoreline reduction, and boating use, all of which are discussed below. However, even without those additionally limiting factors, the Lake is already overcrowded based on the AORCC guidelines.

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III. The Revised EA Overestimates the Useable Surface Area of the Lake

Although BOR does not address the carrying capacity of the Lake in the Revised EA, it does present figures on the surface acreage of the Lake. The Revised EA states that the Lake has an estimated 6,477 acres of water surface at low elevation and 9,970 acres at peak elevation, with an average of 7,423 acres during the months of April to October. There are major flaws with these estimates.

First, it is inappropriate to find the "average" for peak season by using April to October. The heaviest months of boating are May through July according to the Revised EA, and BOR acknowledges that August and September are the months with the lowest water elevation. By including April and October data, the Revised EA takes advantage of the higher water elevation of those months, as well as the reduced usage -- boating activity in the month of October is almost 60% less than a peak month like July. In order to accurately assess the capacity of Lake Pleasant, BOR should not dilute the average for peak periods by including leading and trailing months when the water level in the lake is higher and boater usage is significantly lower. For example, the 1984 EIS carrying capacity study relied upon a surface area of on 5,612 acres. However, this Revised Draft EA ignores that number and increases the size to 7,432 acres without explanation.

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Second, the Revised EA does not subtract unusable acreage from this assessment. The Revised EA clearly acknowledges that "the area open to watercraft use is somewhat less adjusting for unusable boating areas (c.g., shallow areas, small coves, etc.)". Revised EA at 30. However, BOR does not even attempt to calculate how much of the Lake is actually unusable. The following are some of the factors that BOR should have considered regarding the useable acreage and carrying capacity of the Lake:

1. Shoreline Configuration

Significant portions of the Lake have exceptionally irregular shorelines. Yet the Revised EA does not take this into consideration. "Water area with very irregular shorelines should, on the basis of safety, accommodate fewer boats per acre than those with regular, even shorelines." *Guidelines for Understanding & Determining Optimum Recreation Carrying Capacity, U.S. Dept of Interior, 1977, at III-17.*

2. Depth of Water

“Water areas that are shallow should accommodate fewer boats per acre.” *Id. at III-16*. There are many places in Lake Pleasant, including the very popular Humbug Cove, which are subject to shallow water/no wake zones. Every time the lake loses elevation the amount of shallow water increases. Yet BOR makes no assessment of this number.

3. Multiple Use of Water Area

“The number of boats/acre should be lower if other activities, such as swimming, are also allowed in the boating area.” *Id. at III-16*. Clearly, the Revised EA envisions a mixed use park. However, the Revised EA does not address this issue.

4. Mix of Watercraft on the Lake

Nowhere in the Revised EA does BOR actually address the mix of watercraft using the Lake. The 1984 EIS broke the boating use down into three categories: non-power, power boats without waterskiers; power boats with waterskiers; and fishing boats. The Revised EA ignores the boating types and instead lumps all boats together in its assessment of how many boats will be on the Lake after the marina is built. Before any assessment of carrying capacity can be calculated, BOR first needs to know the mix of watercraft using the Lake. Additionally, since the nature of boating has changed significantly in the last 20 years, the use of three boating categories is insufficient. For example, missing from the assessment is any indication of how personal watercraft have affected the use patterns of the Lake. Also missing is an assessment of the current mix of water skiers and activities like “wake-boarding.”

5. Shoreline Buffer Zone

“The most common way to calculate usable lake surface area is to subtract a *shoreline buffer zone* of predetermined width from the total acreage of the lake. These buffer zone widths typically range from 100 to 200 feet.” *Techniques for Estimating Boating Carrying Capacity: A Literature Review, Bosley, August 2005, at 2*. Additionally, it is recommended that a buffer of 400 feet be provided for marinas and public swimming areas. *Id. at 2*. Finally, “for the most conservative usable surface area calculation, the lowest lake depth should be used in conjunction with a shoreline buffer zone.” *Id.* The Revised EA does not address this critical component of useable lake surface.

6. Social Carrying Capacity

The true capacity of the Lake is also impacted by the social carrying capacity, or social attributes to the recreational opportunity. *Optimum Recreation Carrying Capacity, U.S. Dept of Interior, at I-1.*, See also, *Visitor Capacity on Public Lands and Waters; Making Better Decisions, The Federal Interagency Task Force on Visitor Capacity on Public Lands, Haas, G.E. 2002, See also, Water Recreation Opportunity Spectrum; Users Guidebook, Bureau of Reclamation, July 2004*. The Revised EA fails to address any social capacity issues.

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The conditions and circumstances which usually result from crowded conditions are also critical to an understanding of social carrying capacity. Crowding has a number of negative consequences to many persons, all of which cause some degree of participant dissatisfaction and frustration.

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Guidelines for Understanding & Determining Optimum Recreation Carrying Capacity, at IV-1. In one detailed carrying capacity study, the agency concluded that "Although there is no exact standard for determining social carrying capacity, once 33% of respondents indicate that use levels are sufficiently high to discourage them from boating, we would consider the social carrying capacity to be reached." *Maryland Department of Natural Resources, Deep Creek Lake Boating and Commercial Use Carrying Capacity Study, at 64.* Therefore, even if the physical surface acres of the Lake are sufficient to accommodate 1660 boats, which it is not, this physical capacity must be tempered by social attributes to arrive at the optimal carrying capacity.

* * *

Thus, the useable surface acreage of the Lake is much less than BOR estimates because BOR failed to properly account for the reduced water levels during peak summer months as well as the areas of the Lake unusable to boats. Thus, the overcrowding on the Lake is much worse than BOR presents in the Revised EA.

IV. BOR Significantly Underestimates the Number of Boats on the Lake

The Revised EA assumes that on peak weekend days only 20% of the marina occupants will launch. While the Revised EA calls this figure a "conservative maximum," it is at best an average. Moreover, we question whether this figure is representative of the actual use rates for the Lake. Department of Interior guidance on this issue notes that it is "folly" to recommend a specific standard be applied "across the board", regardless of the situation. *Optimum Recreation Carrying Capacity, U.S. Dept of Interior, at I-1.* Each lake is very different, and there are unique attributes of Lake Pleasant that the Revised EA does not take into account. For example, on the July 4 weekend, launch rates are higher than during the annual daily average and significantly higher than the Peak Season Weekend Day.

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In addition, the Revised EA severely underestimates the number of day visitors who launch their boats on peak holiday weekends. According to gate numbers from Maricopa Water District, over 850 boats came through their gate alone on July 3, 2005. That does not include permit holders, the boats at PHM, or the substantial number of boats that were launched from the County side.

Actual Maricopa Water District gate numbers shows that on peak weekends the number of boats on the Lake can be almost 3 times the current authorized capacity of 546 boats. For example, on July 3, 2005, 850 boats launched through the Maricopa Water District. Assuming the County does twice the business as the Water District (which is what is reflected in Appendix C of the Revised EA), that would be 2550 boats (850 + 1700). Using BOR's figure of 20%, an additional 286 boats would launch from the boats stored at Pleasant Harbor Marina. The result is over 2836 boats launched on that day, and 1428 boats on the Lake at any one time

(using a 50% turn-over ratio). That is almost 3 times greater than the current carrying capacity of 546 developed in the 1984 EIS. Moreover, this does not include the pass holders that the Water District does not track.

Another example would be the Sunday before Labor Day 2005, when 563 boats came through the Water District gates. Assuming the County does twice the business as the Water District, that would be 1,689 boats (563 + 1126). Pleasant Harbor would launch 286 additional boats. The result is 1975 total boats launched and 967 boats on the water at any one time. That is almost 2 times greater than the current carrying capacity of 546. Again, this calculation does not include pass holders.

An additional problem with the Revised EA's estimates is its inappropriate use of averages. The Revised EA states that "Maricopa County Parks and Recreation Department (MCPRD) maintains daily tallies of the number of watercraft entering Lake Pleasant Regional Park (LPRP)." Revised EA at C-2. Yet nowhere in the Revised EA does it even mention what these daily tallies show for peak months, week or days. Instead, the Revised EA appears to rely exclusively upon averaging in an attempt to incorporate PHM boating activity into the Revised EA. The clear effect of this is to mathematically reduce the actual impact that BOR, under NEPA, must take into account. This averaging reliance is flawed because it does not show the maximum occupancy of the Lake, but rather uses averages to disguise the true environmental, social and economic impact of boating on the Lake.

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Pursuant to Appendix C, the definition of "Peak Season Weekend Day" was obtained as follows: "the month experiencing the highest watercraft count during the study year was identified. Then the total number of watercraft visiting on all the Saturdays and Sundays in that month was counted or estimated, which was then divided by the number of Saturdays and Sundays in that month." Revised EA at C-1 to C-2. Consequently, this is not a maximum that can be expected on a peak weekend day, but rather an average from an entire month of weekend days.

In addition, the daily tallies by the County will also be lower than actual use as a result of "sneak-ins".⁷

V. The Revised EA Does Not Adequately Address the Serious Impacts of Overcrowding

The Revised EA notes that the number of boats on the Lake on a peak weekend day can be as high as 1660. By any standard, that is serious overcrowding. This overcrowding has already led to public safety issues such as accidents and CO poisonings in some of the narrow coves. Despite these existing problems, the BOR is proposing to add a marina that will bring additional boats on to the Lake.

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⁷ Pursuant to the Lake Pleasant Regional Park Visitation & Market Study, Phase 1, May 24, 1995, "sneak-ins", or those vehicles entering the park without paying a fee was as high as 10-15% of the fee vehicle estimates. Using the base number of vehicles in Table 4 of the Revised EA, that equates to 19,619 to 29,428 additional vehicles in a year, many of which will be towing boats.

The BOR recognizes that the new marina will increase boating usage -- section 3.4.2.2 the Revised EA states that "in the long term, it is expected use of the lake would increase more rapidly with implementation of the proposed project than under the No Action alternative." In Section 3.4.2.2 the Revised EA states that the lake will turn from "a suburban to an urban water body." Yet, nowhere in the Revised EA does BOR address the impacts of this increase in usage.

Instead, in an amazing stroke of circular logic, BOR asserts that the proposed marina would "alleviate" overcrowding: "providing additional facilities and opportunities could help to alleviate the feeling of overcrowding that may occur in the future as the social, physical, environmental, and existing facility capacity levels are reached or exceeded at LPRP. Development of the marina would provide additional boating and parking areas." Revised EA 35-36. It is ludicrous to suggest that the Marina will help alleviate overcrowding when the Bureau itself has found that the project will add boats to the Lake.

Similarly, in Section 3.4.3.3 the Revised EA states "Providing new facilities and opportunities would have a beneficial effect on the quality of the visitor experience." Revised EA at 36. Nowhere in the Revised EA does BOR even attempt to support this speculative statement. We would submit that if BOR had assessed public opinion on the issue, the BOR would have found that visitors are more concerned about overcrowding than they are about having access to new facilities on the Lake. In addition, BOR itself has found that this project will lead the Lake to becoming "urban" more rapidly than it otherwise would. BOR has provided no basis to establish that a more urban lake will "have a beneficial effect on the quality of the visitor experience."

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A. Conflicts Among Different Types of Boats Will Increase

The Revised EA asserts that "It is anticipated conflicts among the different types of boaters (i.e. fishing enthusiasts, water skiers, sailors, and speed boaters [sic] would increase." Revised EA at 36. The proposed solution for this anticipated conflict is the Sheriff's Office would "add additional manpower." *Id.* The conflict is not one of law enforcement -- the conflict is one of resource management. You cannot resolve resource management issues and overcrowding by adding more police boats to the Lake.

B. The Impacts of Overcrowding will Fall Disproportionately on Day Users

There is an important socio-economic impact of the new Marina's impact on Lake overcrowding that BOR also fails to address. When the Lake gets too crowded, it is the public boat ramps that will be closed. Thus, those that own boats stored on the Lake will always have access, and day users, which are much more ethnically and economically diverse, will be the ones impacted by access limitations. This is a socio-economic impact that must be considered under NEPA.

C. Crowding Is a Particular Concern in Humbug Cove

Many boaters congregate in Humbug Cove on the Lake. The numbers of boats in that Cove can reach into the hundreds on a busy peak weekend day. The more people go to Humbug Cove, the more other like-minded people are drawn to Humbug Cove. Consequently, people that

may have intended to go to another lake in the region or another part of Lake Pleasant may be drawn to Humbug Cove to experience its "party atmosphere." Thus, overcrowding may be an issue in Humbug Cove even when the overall capacity of the Lake is not exceeded. The Revised EA does not address how to ensure that CO poisoning, accidents and other impacts of overcrowding are to be avoided in small popular coves like Humbug.

D. BOR Cannot Defer Assessment of the Impacts of Overcrowding by Requiring a WROS Study After the Project is Approved and Built

The Revised EA states that "To address management of activities on the lake into the future and associated public safety concerns, MCPRD has agreed to initiate, within one year of commencement of the marina's operation, a recreation demand and capacity study for LPRP, using the approach outlined in the Water Recreation Opportunity Spectrum (WROS) User's Guidebook (Haas 2004)."⁸ Revised EA at 36. The WROS Guidebook clearly states that "WROS integrates with and supplements the key steps of a public recreation or resource **planning process.**" *WROS Guidebook at 52.* For example, the proposed WROS study "would identify the inventory of existing resources and conflicts that exist among the physical aspects, social use and management practices of the water recreational opportunities at Lake Pleasant." *Id.* Thus, the WROS study needs to be done now as part of the planning process to help assess the need and purpose for the proposed marina, as well as its impacts.

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Requiring the study to be performed one year after the marina is operational is too little, too late. BOR cannot approve the development of the marina **before** the assessment of the project is complete. NEPA requires agencies to assess the likely environmental impacts of their actions – including how those impacts will be ameliorated by mitigation – prior to the agency's approval of the project. *See Sierra Club, Inc. v. Austin*, 82 Fed. Appx. 570 (9th Cir. 2003) (deferral of assessment in forest plan thwarted procedure of NEPA); 40 CFR § 1500.1(b) ("NEPA procedures must insure that environmental information is available ... before decisions are made and actions are taken."). Thus BOR must perform the WROS study now, as part of the NEPA process, and must use the findings to assess the true impacts of this project and how they can be mitigated.

VI. The Revised EA's Discussion of Alternatives Remains Inadequate

The Revised EA continues to ignore the validity of the no action alternative. As pointed out in our comments on the July EA, the existing Pleasant Harbor marina is already able to meet any demand for increased boating capacity on Lake Pleasant. Rather than building an entirely new marina, the existing marina can simply build its approved capacity of an additional 160 wet slips and 400 dry storage spaces. This would meet any unmet demand and would involve

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⁸ It is important to note that the WROS study will not assess the physical carrying capacity of the Lake. A WROS study assumes that the physical carrying capacity has been established. BOR cannot merely rely upon the chart at the back of the WROS study to determine the physical capacity of the Lake, as the chart cannot address the site specific constraints on physical capacity described above.

significantly less environmental impacts, including construction impacts, loss of vegetation and habitat, etc.

The Revised EA dismisses the no action alternative in part because visitors would “experience increasingly longer waiting lines at the entry stations and boat ramps on weekends and holidays.” Revised EA at 7. However, there is no analysis provided of current waiting times, or whether those times are unacceptable to visitors. In addition, if waits at boat ramps are the basis for this project, a valid alternative should be the addition of public boat ramps without a full scale marina. This alternative would reduce wait times with much less significant impacts to the Lake environment.

The only other alternative discussed in the Revised EA besides the no action alternative is the proposed action without phase IV. This supposed “alternative” is the exact same project with storage for 196 fewer boats (most of which comes from dry storage). The Revised EA admits the alternative will involve the same impacts to the environment as proposed action. Revised EA at 15. Because this alternative involves the same environmental impacts, it is not a proper alternative under NEPA. As discussed above, a more appropriate alternative to consider would be adding public boat ramps without the full scale marina.

The Revised EA states that “[a]lternative marina proposals not associated with the County would not satisfy the purpose and need for the project.” Revised EA at 15-16.⁹ This is a classic example of an agency defining the purpose of a project so narrowly as to exclude any consideration of reasonable alternatives. See *Simmons v. United States Army Corp of Engineers*, 120 F.3d 664, 666 (7th Cir. 1997) (“An agency cannot restrict its analysis to those alternative means by which a particular applicant can reach *his* goals.”) (citation and internal quotation marks omitted). BOR is responsible for managing the resources of the Lake, and determining whether an additional marina is necessary or appropriate. BOR cannot rely on the County to make that determination, particularly when the basis for the County’s determination of need is not even presented or discussed. Until a Resource Management Plan and a carrying capacity study are completed, there is absolutely no justification for this complete dismissal of alternatives.

⁹ The Revised EA also asserts that anything smaller than 804 boats is uneconomical. The consideration of alternatives under NEPA cannot be driven by the economic assertions of the applicant. Moreover, there is absolutely no empirical evidence to support the assertion. The 1995 Master Plan study concluded that “250 wet slips and 150 dry slips have market feasibility at Lake Pleasant Regional Park. However, it would seem prudent to us that with Phase I of the County’s schedule, two development stages occur with 125 wet slips and 75 dry slips in each stage.” These are the very figures relied upon by the County in its Master Plan. However, nowhere in the 1997 EA, the scoping letter, the Draft EA or the Revised EA does BOR mention this study and its significantly smaller scale, nor the reason why the project was subsequently increased by a factor of 4. In addition, a marina of only dry storage with no wet slips could be very lucrative because the operating and developing costs would be minimal. Consequently, there are alternatives that may be economically viable, that are not made in reliance on self-serving statements made by the Concessionaire, but rather from an objective economic observation.

VII. Air Quality Impacts are Inadequately Addressed

A. Carbon Monoxide is Already a Serious Concern on the Lake, and this Project will Exacerbate the Problem

The initial Draft EA did not address CO emissions because the BOR apparently assumed that a conformity analysis was not required for the Phoenix CO maintenance area. The Revised EA concludes that CO emission increases due to the proposed project are only 29.82 tpy, far below the conformity determination threshold of 100 tpy. However, the Revised EA's CO emission estimates are unsupportable because the Bureau fails to recognize the distinction between the Phoenix maintenance area and Maricopa County. For example, the Revised EA acknowledges that "the total estimated annual CO emissions from watercraft sources *within the entire maintenance area* of Maricopa County were 488 tons in 2002." (emphasis added). However, based on an ADOT study that shows Lake Pleasant represents "approximately 50 percent of total county usage," the Revised EA assumes that only 244.2 tpy of CO emissions occur at Lake Pleasant. This assumption is incorrect. Lake Pleasant is the only major recreational water body within the CO maintenance area. Bartlett Lake, Apache Lake, Canyon Lake, and Saguaro Lake are Maricopa County lakes that are located outside the CO maintenance area. As a result, the 488 tpy CO emissions in 2002 can be attributed solely to Lake Pleasant.

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In addition, by definition, Maricopa County's 2002 estimate of 488 tpy CO emissions in the maintenance area is only attributable to that portion of Lake Pleasant within the maintenance area. Overall CO emissions at Lake Pleasant are much higher. Using the Revised EA's assumption that only 33 percent of boating activity occurs within the maintenance area, overall CO emissions at Lake Pleasant would have been 1465.2 tpy in 2002. However, a better estimate of the CO emissions increases in the maintenance area is 180.7 tpy, as shown in the table below. As a result, a conformity determination is required for CO.

Watercraft CO Emissions	Lake Pleasant	CO Maintenance Area of Lake Pleasant
Current Emissions (tpy)	1465.2	488.4
Projected increase due to proposed project (37%)	542.1	180.7

B. Ozone

The Revised EA ozone precursor estimates suffer from the same flaws as the CO estimates. Again, the BOR confuses the geographic scope of the nonattainment area with Maricopa County overall and assumes that Lake Pleasant only accounts for 50% of emissions in the nonattainment area when its actual contribution is approximately 50% County-wide.

In addition, the draft EA erred by assuming that the current eight-hour ozone nonattainment area had the same geographic boundary as the previous one-hour nonattainment area. The BOR attempts to correct this error in the Revised EA, but is not completely successful.

For example, the Revised EA states, “the total estimated annual NOx and VOC precursor emissions from watercraft sources within the nonattainment portion of Maricopa County were 221 tons in 2002.” Revised EA at 47. While this may be true, it is irrelevant. In 2002, the one-hour nonattainment standard was in effect, not the eight-hour standard. This mistake leads the BOR to greatly underestimate ozone precursor emissions.

A better approach to estimate ozone precursor emissions from watercraft would be to use the most current county-wide emission estimate available as a starting point. Using Maricopa County’s 2002 emission inventory, the analysis would be as follows:

Watercraft Ozone Precursor Emissions	Tons per Year
Total emissions in 2002 in Maricopa County	643
Emissions from Maricopa County portion of Lake Pleasant in 2002 (50% of total county emissions per ADOT)	321.5
Lake Pleasant emissions in eight-hour nonattainment area (equal to all Maricopa County Lake Pleasant emissions)	321.5
Emissions increase due to proposed project (37% increase)	119.0

I-7

Additionally, the Revised EA fails to calculate ozone precursor emissions from construction equipment, arguing that these emissions are below conformity thresholds. The BOR made a similar error in the Draft EA. However, all emissions from the proposed action must be quantified, and then aggregated, to determine if the proposed action as a whole exceeds conformity determination thresholds.

The threshold for conformity determinations in ozone nonattainment areas is 100 tpy. The BOR concluded that emissions would only increase 23.5 tpy due to the proposed project. However, a better estimate of ozone precursor emissions from watercraft alone is 119 tpy, as shown in the table above. Emissions from automobiles, light trucks, and construction equipment will push this total higher. As a result, a conformity determination is required for ozone.

C. PM10

The draft EA failed to provide support for PM₁₀ emission estimates. Appendix D of the Revised EA attempts to address that concern. However, Appendix D leaves the following emission factors and other assumptions unexplained:

- 0.29 lb/vehicle miles traveled for unpaved parking lots (By comparison, the emission factor used by Maricopa County in the 2002 emission inventory for unpaved roads is 573.91 g/VMT (1.26 lb/VMT)).
- 3.2 lb/VMT for haul road traffic on unpaved roads

- Forty-two acres total construction activity (The overall size of the project is 164 acres. Pg. 8 of Revised EA).

In addition, the PM₁₀ emission estimates ignore particulate matter precursors such as SO_x, NO_x, VOCs, and ammonia.

Also, it is inappropriate for BOR to rely on 2002 PM₁₀ emission assumptions given the large amount of PM₁₀ data developed by Maricopa County, the Maricopa Association of Governments, ADEQ, and EPA since 2002 as part of the Salt River State Implementation Plan development and other analyses conducted since that time.

Furthermore, the PM₁₀ emission calculations suffer from the same flaws as the CO and ozone precursor emission estimates. Specifically, the BOR mistakenly concludes that Lake Pleasant only accounts for 50% of PM₁₀ watercraft emissions in the nonattainment area, when the percentage is actually much higher. The only major Maricopa County lakes in the PM₁₀ nonattainment area are Lake Bartlett and Lake Pleasant, and watercraft usage at Lake Pleasant is over five times greater than at Lake Bartlett. As a result, the BOR substantially underestimates PM₁₀ watercraft emission increases.

The conformity threshold for the Phoenix PM₁₀ nonattainment area is 70 tpy. The BOR estimated that PM₁₀ emissions will increase only 29.37 tpy. However, the BOR makes critical errors in its analysis, fails to fully explain its estimate, overlooks other emission sources such as PM₁₀ precursors, and relies on outdated data. As a result, BOR is unable to conclude that the project will not exceed the 70 tpy conformity determination threshold.

VIII. Miscellaneous Comments on Specific Sections of the Revised EA

A. Impacts to Vegetation

The Revised EA states that the proposed action would result in the loss of 37 acres of Sonoran desert scrub vegetation. Revised EA at Page 55. However, the July 2006 EA stated that the project would impact 233 acres of vegetation. July 2006 Draft EA at 38. This significant discrepancy should be explained.

B. Water system

In response to the DEA comments, BOR now proposes that the water treatment plant produce B+ water instead of A+. However, there is no explanation as to the basis for this change. Additionally, the Revised EA still does not explain how the facility with low water natural landscaping will utilize the enormous amount of reclaimed wastewater on irrigation. It seems clear that the only option is for the facility to discharge the water into the Lake at a later date after this NEPA process is complete.

I-7

I-8

I-9

C. Drinking Water

On page 19 the Revised EA admits that the water it is pumping is subflow from the Lake.¹⁰ Consequently, any withdrawal is actually a misappropriation of water from the CAP. The Revised EA states that “per MCPRD Engineering Manager, there are no permits required or restrictions on the quantity of groundwater that is pumped since LPRP is outside the AMA.” However, being outside the AMA has absolutely no impact on the legality of pumping subflow. The point is that the water appears to be coming from the Lake, not the ground. Therefore, pumping is subject to surface water appropriation law, not groundwater AMA requirements.

I-10

In addition, the drinking water tests show that the County is currently in non-compliance for drinking water. The sample results are from 1991 – 15 years ago. If well number 4 “provides the majority of the potable water used within the main park”, then it must be tested in accordance with ADEQ drinking water standards.

D. Resources Management Plan (RMP)

BOR must undertake to develop a Resource Management Plan for Lake Pleasant. The Revised EA clearly shows that there are significant issues regarding the resources, management, recreational opportunities, and environmental impacts involved with this project. Before BOR can reach a conclusion regarding these impacts and future resource management, it must undertake to study the resource and develop a proper RMP pursuant to BOR directives.

The objective of an RMP is to establish management objectives, guidelines, and actions to be implemented by Reclamation directly, or through its recreation contract, that will protect the water supply and water quality functions of the water body; protect and enhance natural and cultural resources in the Recreation Area consistent with Federal law and Reclamation policies; and provide recreational opportunities and facilities consistent with the Project purposes and Reclamation policies. The Revised EA acknowledges that visitation and use of the Lake would continue to increase, even if the proposed marina was not approved. Revised EA at 7. BOR goes on to state that “at some point, management guidelines to control watercraft activities on the lake would need to be initiated. MCPRD would be responsible for determining what these guidelines should be and when they should be implemented.” *Id.* Therefore, BOR has admitted that a Resource Management Plan is necessary, but has attempted to avoid responsibility for the creation and implementation of the management plan by leaving the issue for the County to handle in the future. This is just one more example of how the Revised EA improperly relies on post-decision analyses and actions by the County. This is a complete shirking of BOR’s responsibilities. BOR cannot merely defer to the County on such critical elements to the management of BOR’s resource.

I-11

¹⁰ In fact, the County has been aware that the water pumped from around Lake Pleasant was subflow for decades. “Almost all wells of comparative interest stand in either volcanic formation or cemented conglomerates. Gravels and sands of the alluvial fill, with recharge potential from Lake Pleasant, are the most important water-bearing materials.” *Maricopa County Regional Park System Plan, Vol. 2 (undated), Page 79.*

E. Wildlife Impacts

With the current user volume data, it was determined that approximately 4% of boaters are expected to violate the December 15 through June 15 closure (within 0.62 miles of the known bald eagle nest site in the Agua Fria arm). Because the initial BOR Biological Assessment that was submitted to FWS was based on incorrect user volume data, it is important to ensure that FWS reviews the revised EA when making their decision as to whether or not the proposed action will have adverse effects to the bald eagle. With the significant increase in boater volume as expected due to the implementation of the proposed action, BOR must assess how many boaters will be expected to violate the closure (and therefore how much disturbance the bald eagles will really have to endure while trying to nest and produce young). It is important for FWS to factor this into their Biological Opinion or concurrence as to the project's potential to adversely impact bald eagles. In addition, we note that the BO and the FWS response should be included in the Revised EA.

I-12

The Revised EA discusses Water Resources on page 23, but includes no mention of what biological consequences could arise to aquatic species due to the increase in turbidity while excavation and rock placement is in progress for construction of the marina. Although there are no federally listed aquatic species identified, impacts to aquatic species and sport fish should nonetheless be considered.

F. Future Related Development

As set forth in the Pensus Group comments on the Initial Draft EA, BOR must consider the impacts of the future phases of this project, which we understand may include a convenience store and boat sales facility. The Revised EA states that "no other recreational developments are being considered in the immediate future", although it acknowledges that the MRP included "a convenience center and lodging facilities." Revised EA at 38. The Revised EA does not include an assessment of these future developments, however.

This omission violates NEPA. The fact that this future development would be subject to future approvals and NEPA review does not obviate the need for BOR to include them in the current NEPA assessment. NEPA is specifically designed to measure all of the environmental impacts of a proposed development at the earliest possible time and does not allow larger projects to be segmented and considered in isolation from one another. *See* 40 CFR § 1502.4(a) ("Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement). Given the interdependence of the marina and these further planned developments, all of these projects are "connected actions" that must be considered together under NEPA. BOR cannot divide up this project into individual "phases" so that each phase is found not to have a significant impact, thereby eliminating the need for an EIS, while the project as a whole, if reviewed concurrently, would have required an EIS.

I-13

Moreover, BOR cannot ignore this development for lack of "definitive plans." Revised EA at 38. This future development is reasonably foreseeable, and therefore within the scope of

what must be considered, since it is included in the Use Management Agreement¹¹ and is currently being planned. See attached e-mails concerning the land acquisition for a store site.

I-13

G. Visitor Numbers

The numbers used in the Revised EA for visitors to the LPRP are in direct conflict with the LPRP Master Plan. The Revised EA states that there were 170,099 vehicles and 549,082 people visiting LPRP in 2003. Revised EA, Table 4 at page 30. However, the Lake Pleasant Regional Park Master Plan, upon which the 1997 EA was based, claims that in 1980-81, visitation was 1,097,818. Additionally, “[a]s of the publication of this document, visitation was on the rebound with 1,157,935 visitors recorded for 1993-94.” Lake Pleasant Regional Park Master Plan at IX-2. This significant discrepancy in the numbers of people visiting the Lake is not explained in the Revised EA. If park visitation has dropped by half, then the need for this project is even more questionable.

I-14

H. Non-Boating Visitors

The Revised EA does not address the how many people are using the Lake area for camping, hiking, riding horses, and other non-boating recreational activities. The agency needs to study current usage, and assess the expected increase of non-boating visitors from the project. In addition, BOR needs to assess the impact of this project on non-boating recreational uses

I-15

I. Noise Levels

The Revised EA notes that the proposal will lead to an increase in noise levels, but dismisses the impact because noise was anticipated in the Plan 6 recreational plan. Revised EA at 34-35. The fact that noise impacts may have been anticipated does not answer the question of whether they are significant under NEPA. BOR must fully assess the impact of the increased noise levels caused by this project, particularly in sensitive areas such as the bald eagle nesting area.

I-16

J. Scope of County Authority

On page 34, BOR states that “MCPRD would be responsible for determining what management actions should be taken and when they should be implemented. All watercraft on the lake proper would be subject to these management actions.” Revised EA at 34. And in relation to the proposed WROS study, BOR states that management strategies of the WROS will apply to “all watercraft on the lake proper.” Revised EA at 36. These statements overstate the County’s authority. If correct, these statements would expand the universe of people, economic operations and resources directly impacted by this project -- “all watercraft” on the lake would include all watercraft that enter the Lake from Pleasant Harbor Marina, Maricopa Water District gates and all watercraft that use the public boat ramps on the lake. The economic implications of

I-17

¹¹ See Maricopa County Parks and Recreation Department, Use Management Agreement, Agreement Number C-30-06-012-1-00 at p. 41.

such a change in scope are significant, and would required BOR to begin the process anew and allow these people and entities the opportunity for notice and comment. | I-17

K. There are Numerous Changes in the Revised EA that Have Not Been Adequately Explained

Several critical elements to the project have changed without explanation:

- Missing from the Revised EA is the description of the 50 space minimum recreational vehicle park; 50-space minimum campsite with restrooms; 100-space minimum picnic area; and ¼ mile minimum length beach. Have these four elements been stricken from the project? The full impacts of the project cannot be understood if BOR fails to define the precise scope of the project | I-18
- Removed reference to “gravel parking for 380 vehicles.” Page 8 | I-19
- Removed reference to 240 acres – now 164 acres. Page 8 | I-20
- Removed “Guarantee” that Concessionaire be approved for 544 slips. | I-21
- The July DEA estimates an increase of 347 to 583 watercraft at total build out. DEA at 31. The Revised EA now assumes a maximum of 236 boats on a peak weekend day. Revised EA at 35. | I-22
- The Revised EA asserts that this addition of 236 boats would only be a 14% increase in peak season weekend day numbers. Revised EA at 35. Yet, in the DEA, BOR anticipated a 68% increase. DEA at 28. | I-23

L. The Corps of Engineers Should Be a Cooperating Agency in this NEPA Review

Pursuant to the Revised EA, “A U.S. Army Corps of Engineers Clean Water Act section 404 permit would be obtained for the discharge of fill material into the lake.” Revised EA at 23. In fact, the Concessionaire has already applied for the permit and the public notice and comment period for the permit has already expired. It is unclear why the Corps is not a cooperating agency in the BOR’s NEPA review. When multiple federal agencies are involved with the same project, they are supposed to coordinate NEPA reviews in order to decrease duplication. In addition, interested parties should not be required to monitor and participate in multiple federal proceedings regarding the same project. | I-24

IX. Conclusion - An EIS Is Required for this Project

The above comments make clear that the proposed marina project involves numerous significant impacts that require an Environmental Impact Statement (“EIS”) to be prepared. For example, the exceedance of the Lake’s carrying capacity will have a significant impact on the environment and on public safety, yet the issue is largely ignored in the Revised EA. BOR must start from scratch by preparing an actual needs analysis, a carrying capacity study, and an EIS that assesses reasonable alternatives to the current proposal. Once the Bureau performs this | I-25

required analysis, it will be clear that given the lack of need for the proposed marina, and its significant impacts on the Lake and surrounding environment, "no action" is the preferred alternative.

The fact that an EIS is required in this case is made clear by the National Park Service's handling of a similar matter -- the Final EIS for the Lake Mead National Recreation Area Lake Management Plan. There are numerous parallels between the proposed activity at Lake Pleasant and at Lake Mead. For example, the Lake Mead EIS states "In 1986 the Lake Mead National Recreation Area General Management Plan and Final Environmental Impact Statement established land-based management zones and strategies for meeting the goals and general purposes of the recreation area. Since that time, management issues have surfaced that have not been adequately addressed or resolved in previous planning efforts. These issues relate to the increase in recreational use of the lakes, visitor conflicts and safety, potential impacts on park resources from water-related recreation, and personal watercraft use." Lake Mead EIS, Executive Summary. The purpose and need for the Lake Mead EIS are almost identical to the circumstances at Lake Pleasant -- a 1984 EIS established "goals and general purposes of the recreation area." "Since that time management issues have surfaced that have not been adequately addressed or resolved in previous planning efforts." "These issues relate to the increase in recreation use of the lakes, visitor conflicts and safety, potential impact on park resources from water-related recreation and personal watercraft use." The reasoning that led the Park Service to require an EIS for Lake Mead applies equally here.

I-25

From: "Tom Timmons - PARKSX" <tomtimmons@mail.maricopa.gov>
To: "pocastaneda@lc.usbr.gov" <pocastaneda@lc.usbr.gov>
Date: 9/14/2006 2:47:54 PM
Subject: FW: Draft Amendment - Land Acquisition for Store Site, Lake Pleasant

Peter,

Had not heard anything regarding the status; however, do want to clarify. By "Time to move forward" implies only in draft/formative stages and this is not a formal amendment or anything that will be finalized near term. When the time comes to finalize (largely dependent upon outcome of marina), a formal request will be submitted and it is expected that we will go through the EA process, etc. as is being done for the Marina. My intent here is only to start to formulate "verbiage" and to get your input.

Tom

From: Tom Timmons - PARKSX
Sent: Wednesday, September 13, 2006 11:36 AM
To: 'pocastaneda@lc.usbr.gov'
Subject: FW: Draft Amendment - Land Acquisition for Store Site, Lake Pleasant

Any update? Two exhibits will be sent via separate msgs.

From: Tom Timmons - PARKSX
Sent: Friday, August 18, 2006 8:16 AM
To: Bureau of Reclamation (pocastaneda@lc.usbr.gov)
Subject: Draft Amendment - Land Acquisition for Store Site, Lake Pleasant

Peter,

For your review and comment. Time to move forward on this.... The attached is just the word document. Will be sending to additional e-mails with Exhibits A and B respectively as file too large otherwise.

Tom Timmons

Maricopa County Parks and Recreation Department

602-506-3998

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