

APPROVED
by the Board of Directors of
The Metropolitan Water District
of Southern California
at its meeting held

Revised 8-7

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**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

David Cain
EXECUTIVE SECRETARY

October 13, 1998

To: Board of Directors (Engineering and Operations Committee—Action)
(Water Planning and Resources Committee—Action)
(Special Committee on Water Quality, Desalination, and
Environmental Compliance—Action)
(Special Committee on Real Property—Action)

From: *for* General Manager

Submitted by: Chief Engineer

for
Director of Water Quality

Edward J. Meier III
James S. Taylor
Mark Benkler

Subject: Authorize Types of Recreation Activities on the Reservoir of the Eastside
Reservoir Project

RECOMMENDATION

It is recommended that the Board of Directors allow recreational activities over the full reservoir, excluding certain operational areas, that involve no body contact with the water. Recommended activities would include motorboating, single and multi-hull sailing, canoeing, rowboating, and kayaking and boating in vessels of a type and size that are not likely to capsize. This recommendation is made with an understanding that within 3-month period staff will provide the Board with recommendations regarding specific types of boating activities to be permitted on the reservoir. It is recommended that water skiing, personal watercraft (PWC) use, sailboarding, and swimming not be allowed on the reservoir.

EXECUTIVE SUMMARY

Metropolitan is developing a variety of recreational facilities at the Eastside Reservoir and is completing a Subsequent Environmental Impact Report and Specific Plan preparatory to the implementation of these facilities. Public facilities to be built as a part of the plan are valued at \$58 million. Projections are that private and other public sources will eventually bring the total public/private investment in the recreation complex to \$200 million. The recreational activities under consideration at the recreation complex are described on page 2 of Attachment 1.

In 1992, Metropolitan initiated studies to determine the feasibility of allowing body-contact recreation on the reservoir. Specifically, these studies assessed potential public health, financial, economic, environmental, liability, and legal impacts (Attachment 1). The results of Metropolitan's studies were presented to the public for review and comment at four public hearings on July 29 and 30 and August 5 and 6 of this year. A member of the Board of Directors conducted each hearing. Attachment 2 is a summary of the comments received at the four hearings including written comments received.

Staff considered and analyzed four options as summarized below. Under each option (including staff's recommended option), motorboat operations may have to be restricted by various means to comply with expected standards and regulations for MTBE. Swimming in the reservoir was not evaluated (and therefore would not be permitted) under any of the options due to its impracticability.

Recommended Option (Option 1)—Non Body-Contact Recreation Boating. This option would allow ~~motorboating~~, single and multi-hull sailing, canoeing, rowboating, and kayaking in vessels of a type and size that are not likely to capsize. Boating would be allowed over the full reservoir (excluding certain operational areas). Water skiing, personal watercraft (PWC) use, sailboarding and swimming would not be permitted on the reservoir. This option would provide a high-quality boating experience while protecting the public health of downstream water consumers. This option would avoid any additional treatment costs for Metropolitan and its member agencies. This option would not require a change in State law to allow body-contact recreation on a reservoir used for domestic water supply.

Option 2— Non Body-Contact Recreation Boating (More Limited). This option would only allow those boating activities specified in the Final Environmental Impact Report (FEIR) of the Eastside Reservoir Project: "sailing, warmwater fishing, and pleasure boating" over the full reservoir (excluding certain operational areas). Water skiing, PWC use, sailboarding, canoeing, rowboating, sailing in vessels of a size that are likely to capsize, and kayaking would not be permitted. This option would protect the public health of downstream water consumers, would avoid any additional treatment costs, and would not require a change in State law. It would not provide, however, as desirable a mix of boating activities as Option 1.

Option 3—Restricted Body-Contact Recreation Boating. This option would allow the same types of non body-contact boating as under Option 1 (~~motorboating~~, single and multi-hull sailing, canoeing, rowboating, and kayaking) and a specified quantity of body-contact boating (water skiing, PWC use, and sailboarding) that would not require additional water treatment at any of Metropolitan's treatment plants. Body-contact activity would be restricted to the reservoir's east basin. This option would marginally increase annual regional economic benefits over Options 1 and 2. This option would increase the risk of waterborne infection to downstream consumers by three times over Option 1 and increase the risk of pathogen "spikes." Levels of MTBE would be higher than under Option 1. This option would require a change in State law.

Option 4—Unrestricted Body-Contact Recreation Boating. This option would allow ~~motorboating~~, single and multi-hull sailing, canoeing, rowboating, and kayaking, water skiing, PWC use, and sailboarding. Non body-contact boating as well as water skiing, PWC use, and

sailboarding would be allowed over the full reservoir. This option would maximize reservoir recreation opportunities and annual regional economic benefits. This option would, however, require additional treatment, because it would increase the annual risk of waterborne infection to downstream consumers by up to 41 times background and the daily risk of infection by up to 146 times background. This option would require capital treatment costs of up to \$62.4 million at Metropolitan's Skinner treatment plant (in addition to the \$147.7 million now planned but not funded) and up to \$164 million at San Diego area treatment plants. This option would require a change in State law.

The recommended option and the other options apply only to recreator activity on the reservoir. Sailboarding, swimming, single and multi-hull sailing, rowboating, and kayaking will be allowed in the recreation lakes outside the east and west dams. Special permitted water skiing and PWC events could be allowed on the recreation lakes outside the west dam and may be possible outside the east dam.

DETAILED REPORT

To determine the potential impacts under a variety of different reservoir-use conditions, the recreation planners developed a series of body-contact scenarios, each forecasting different numbers of body-contact recreators:

- Three graduated *recreation-activity* scenarios in addition to non body-contact boating: (1) limited body-contact boating (for example, windsurfing, small multi-hull sailboarding, and kayaking), labeled "LBC"; (2) LBC boating plus water skiing (WS); and (3) LBC boating plus water skiing plus use of personal watercraft (PWC).
- Two reservoir *operational* scenarios: body-contact-recreation (1) on the full reservoir and (2) limited to the east basin only (the "divided-basin scenarios") farther away from the reservoir inlet-outlet tower.

The recommended action and the three options result from an evaluation of these scenarios in terms of their potential public health, financial, economic, environmental, liability, and legal impacts.

Public Health Impacts

Metropolitan enlisted the aid of four prominent university scientists to develop a model to predict the potential health consequences for downstream consumers of water from the Eastside Reservoir Project. The model was peer-reviewed by 12 nationally recognized scientists and engineers, including a representative selected by the City of Hemet (see pages 9 and 10 in Attachment 1). The panel concluded that the model was scientifically sound and valid.

The scientists used the U.S. Environmental Protection Agency's (USEPA) proposed Enhanced Surface Water Treatment Rule (ESWTR) to quantify any increased risk to consumers. The ESWTR's maximum permissible concentration of *Cryptosporidium* is expected to be 1 oocyst in 100 liters of water. Source water monitoring for this study established that the annual average concentration of *Cryptosporidium* in waters expected to enter the Eastside Reservoir (which

includes water used for body-contact recreation at Lake Silverwood and Lake Havasu) is 0.36 oocysts per 100 liters (L). This average annual concentration can fluctuate. For study purposes, however, the 0.36 oocysts/100 L is the baseline—the projected *Cryptosporidium* concentration in the reservoir in the absence of body-contact recreation.

The scientists and Metropolitan calculated the potential *public health impacts* and *water treatment costs* at model confidence levels of 95-percent and 99-percent. At the 95-percent confidence level, there is a 95-percent probability that annual average pathogen concentrations will be equal to or less than the predicted concentration. At the 99-percent confidence level, the probability increases to 99 percent. These values may also be considered as a measure of risk involved for the public consuming the water. At 99 percent, the risk of incorrectly selecting permissible body-contact numbers is five times less than at the 95-percent level. While the 95-percent and 99-percent values used in this study allow statistical interpretation of the results, they may not provide a sufficient margin of safety in terms of estimating acceptable public health consequences related to body-contact recreation.

The potential public health impacts from body-contact recreation on the reservoir are the increased risks of waterborne infections and increased exposure to MTBE.

Waterborne Infections

- Body-contact boating would increase the risk of waterborne infections by increasing the levels of pathogens such as *Cryptosporidium* in the reservoir. Without additional water treatment, body-contact boating would increase average annual waterborne *Cryptosporidium* infections to downstream consumers. For the *full reservoir* scenarios, the public health risk would be 3 to 41 times more than baseline conditions. Depending on the level of body-contact recreation, it is estimated that about 380 to 5,000 individuals would contract cryptosporidiosis annually from drinking the water. For the *divided basin* scenarios, the public health risk would be 2 to 19 times more than baseline conditions with about 220 to 2,350 cryptosporidiosis infections annually. While not calculated, the public health economic impacts could be substantial.
- From 27,000 to 81,000 body-contact recreators annually (depending on the scenario and level of confidence) are possible without additional treatment at Metropolitan's Skinner plant, but would require additional treatment at one of the San Diego area treatment plants in order to meet the expected ESWTR due to increased pathogen loading from the Eastside Reservoir Project. This is because San Diego receives both treated and untreated water from Metropolitan. This level would still increase the risk of *Cryptosporidium* infections to downstream consumers by about 3 times over baseline conditions.
- Body-contact recreation would also produce daily peak *Cryptosporidium* concentrations (spikes). For example, under the *full reservoir* scenarios, the daily risk of infection would range from 13 to 146 times background, resulting in 5 to 50 more infections in the community every day. Under *divided basin* conditions, the daily risk of infection would range from 3 to 44 times background with 1 to 15 daily infections in the community. The model predicted that extremely high levels of *Cryptosporidium* spikes could occur 1 percent or less of the time,

resulting in high levels of infection in the community. Water treatment plants would be challenged to handle peak concentrations even with additional treatment.

- Body-contact recreation can also pose a risk to recreators in the reservoir. During the summer months, up to 40 body-contact recreators per 100 (depending on the scenario and level of confidence) could become infected from rotavirus shed by other recreators already infected with the virus. The estimated number of individuals experiencing physical symptoms from rotavirus were not determined. Calculations were not made for infections occurring from exposure to other waterborne pathogens. It is not feasible to disinfect water in the reservoir to reduce the probability of infection.

The study of waterborne infections focused mainly on the risk of contracting cryptosporidiosis. This was due to the severe public health consequences associated with this disease caused by becoming infected by *Cryptosporidium*, the recalcitrant nature of this organism to water treatment, and the availability of information to allow modeling of this organism. While there are other emerging waterborne pathogens that may be more problematic, limited information precludes an accurate assessment of these organisms at this time.

MTBE

The public health studies also examined the potential impact of all types of motorized craft on concentrations of MTBE in the reservoir. MTBE is an oxygenate used in most of California's reformulated gasoline to reduce airborne emissions. MTBE is considered a possible human carcinogen and adds a taste and odor to water that are detectable at very low levels. Results of studies in Southern California reservoirs show considerably greater MTBE contamination in reservoirs that allow water skiing and PWC use. The model predicted that MTBE levels in the Eastside Reservoir under all boating scenarios would exceed the proposed State secondary standard (dealing with taste and odor) of 5 micrograms per liter. Methods to minimize MTBE concentrations and to meet the proposed State secondary standard may include banning fuel containing MTBE, restricting the number of motorboats allowed on the reservoir, requiring the use of electric motors, banning watercraft powered by conventional two-stroke engines, and other management strategies as appropriate. This would be the subject of a separate Board action. All options dealing with recreation boating on the reservoir would require compliance with State standards.

Financial Impacts to Metropolitan

For study purposes, staff undertook a cost analysis of treatment for the Skinner filtration plant and treatment plants in the San Diego area that will receive water from the Eastside Reservoir Project. The Board has approved a schedule calling for installing ozone disinfection equipment at the Skinner plant by 2006 to comply with the future potentially more stringent federal *Disinfectant/Disinfection By-Product Rule*, which regulates trihalomethanes (THMs), a by-product of disinfecting water with chlorine. The estimated costs for this Skinner plant retrofit are: \$147.7 million in capital costs and \$2.9 million in annual operations and maintenance (O&M) costs, yielding \$15.8 million in annualized treatment costs (capital cost amortized over 20 years plus annual O&M costs). Funding has not yet been authorized.

While ozone is generally effective in inactivating *Cryptosporidium*, the ozone dosage required to control THM formation at acceptable levels is not sufficient to control average annual or daily peak *Cryptosporidium* concentrations projected for most of the body-contact recreation scenarios at the Eastside Reservoir. Metropolitan would incur additional costs to the currently scheduled retrofit at the Skinner plant to accommodate most of the body-contact recreation scenarios. Depending on the recreation scenario, the goal (maintain the current baseline or stay within the proposed ESWTR), and the confidence level (99% or 95%) associated with higher ozone doses to control annual average *Cryptosporidium* concentrations from body-contact recreation, Metropolitan's additional:

- Capital costs above the \$147.7 million would range from \$20.6 to \$62.4 million, and
- Annual O&M costs above the \$2.9 million would range from \$820,000 to \$2.3 million, yielding additional
- Annualized treatment costs above the \$15.8 million of \$2.6 to \$7.7 million.

Other treatment plants receiving water from the Eastside Reservoir would require additional treatment similar to that at Skinner to accommodate body-contact recreation. The associated costs might be comparable to those at Skinner, depending on a number of factors including the level of pathogens introduced at those plants and the specific costs associated with each plant. San Diego water treatment plants would also incur costs to accommodate average annual *Cryptosporidium* concentrations from body-contact recreation on the Eastside Reservoir. Depending on the body-contact recreation scenario and confidence level, the estimated capital costs to retrofit San Diego plants range from \$6 to \$43 million per plant (\$89 to \$164 million in total) to maintain baseline conditions without the Eastside Reservoir.

Regional Economic Benefits

Two economic studies show that annual direct reservoir body-contact boater spending would add from \$3.6 to \$8.7 million to reservoir spending and from \$7.6 to \$13.9 million to total regional economic activity (the great majority in the Hemet area). To put this in context, Hemet's total 1996 retail sales were \$417 million. Reservoir body-contact boater spending would add about 10 percent to total recreation complex spending.

Liability Impacts

The addition of water ski boats and PWCs on the reservoir would more than quintuple annual liability insurance premiums to the recreation complex management entity over the non-body-contact and limited body-contact recreation scenarios. Reservoirs that allow water skiing and PWC use (e.g., Lake Perris, Castaic Lake, Lake Silverwood) experience higher accident rates than reservoirs that allow only non body-contact boating (e.g., Lake Skinner, Lake Hemet). Although there are legal exemptions from liability for the dangers inherent in high-risk activities such as water skiing and PWC use, Metropolitan and its recreation management entity would assume some additional liability and legal defense costs from boaters if Metropolitan were to permit such high-risk uses at the Eastside Reservoir Project. There would be some additional risk to Metropolitan resulting from potential infections to body-contact recreators in the water.

Legal Impacts

The California Health and Safety Code prohibits body-contact recreation in reservoirs where water is stored for domestic use (except for reservoirs in San Diego County and a reservoir in Modesto, which have exemptions). The State Water Code permits body-contact recreation in most reservoirs of the State Water Project. The Eastside Reservoir will operate under the California Health and Safety Code. Implementation of the recommended action (Option 1) or Option 2 would not require a change in State law. Implementation of Options 3 or 4 would require a change in State law.

Public Views About Body-Contact Recreation on the Reservoir

About 400 people attended the four public hearings on July 29 and 30 and August 5 and 6. Fifty-six people made oral comments (a few made identical comments at more than one hearing), and over 50 people submitted written comments as of August 26. Attachment 2 is a summary of the public comments. Copies of the full hearing transcripts are also available to Board members. Overall, slightly less than half of the people commented in favor of body-contact recreation and slightly more than half against it.

Major arguments opposing body-contact recreation were: the fact that body-contact recreation is against State law, the belief that body-contact recreation is counter to Metropolitan's mission of providing high quality water, the importance of protecting water consumers from any additional contamination and potential infection, the belief that the main purpose of the reservoir is to supply drinking water and not provide recreation, the concern that any additional water treatment costs required by body-contact recreation would be passed on to the water consumer, the belief that body-contact recreators would increase traffic and noise in the local community to unacceptable levels, the belief that body-contact recreation would adversely change the quality of life for residents in the immediate area, perceived unknown consequences of adding more chemicals to the water for treatment, and the concern about MTBE from motorboats, including PWCs and water ski boats.

Major arguments favoring body-contact recreation were: the importance of the reservoir to meeting Southern California recreation demand for water skiing and PWC use, no perceived evidence that such activities on drinking water reservoirs have caused infections in water consumers, the belief that reservoirs throughout the state allow body-contact boating with no adverse public health results, the public health study's perceived reliance on results from artificial recreation settings (e.g., swimming pools) and not recreation lakes, the belief that children (the age group with the greatest pathogen infection rates) would minimally water ski or use PWCs on the reservoir, the value of water skiing and PWC use to family life, the economic importance of body-contact recreation to the local economy, and the belief that technology can overcome pollution problems.

Over the course of the body-contact recreation feasibility studies, staff conducted two public workshops in Hemet (1994 and 1995) to seek public input to the studies. Over 200 people attended each one. In these workshops, more people spoke in favor of body-contact recreation than against it. Summaries of these two workshops are available to Board members on request. In addition,

prior to the release of the feasibility studies, staff received many letters on the issue—most writers favoring body-contact recreation. This included a petition signed by 60 people favoring it. In contrast, in a recent nonscientific poll conducted by the Hemet News, 80 percent of the respondents opposed body-contact recreation at the reservoir.

JUSTIFICATION FOR RECOMMENDATION

Staff evaluated four options presented in the Board letter in terms of their potential public health, financial, economic, environmental, liability, and legal impacts.

Staff recommends **Option 1, Non Body-Contact Recreation Boating**. This would allow boating on the full reservoir that involves no body-contact with the water. This boating would include ~~motor~~boating, single and multi-hull sailing, canoeing, rowboating, and kayaking in vessels of a type and size that are not likely to capsize. Staff's overriding concerns are for the public health of downstream water consumers and the desire to avoid any additional treatment costs for Metropolitan and its member agencies attributable to body-contact recreation. Implementing Option 1 would ensure downstream water consumers a quality of water close to baseline conditions without requiring additional treatment. Staff acknowledges that implementing this option would only marginally increase economic benefits to the region. However, the projected annual economic benefits of the entire recreation complex are large enough without water skiing and PWC use on the reservoir to significantly benefit local economies without those activities on the reservoir. Staff believes that the mix of boating activities under Option 1 would provide a high-quality boating experience in Southern California, and a balanced recreation experience at the reservoir and surrounding facilities.

Option 2, Non Body-Contact Recreation Boating (More Limited), would only allow those boating activities specified in the project's FEIR: "sailing, warmwater fishing, and pleasure boating" over the full reservoir. This option would not provide as desirable a mix of boating activities as Option 1, since it would ban boating in certain types of vessels that have very limited capability to capsize. The public health benefits over Option 1, if any, would be negligible because of the types of vessels that would be allowed under Option 1.

Option 3, Restricted Body-Contact Recreation Boating, would allow on the full reservoir the same types of non body-contact boating as under Option 1 (~~motor~~boating, single and multi-hull sailing, canoeing, rowboating, and kayaking) and a specified quantity of body-contact boating restricted to the east basin (water skiing, PWC use, and sailboarding) that would not require additional water treatment at any of Metropolitan's treatment plants (in other words, would not exceed the proposed regulatory standards). Staff does not recommend Option 3 for the following reasons. Allowing this level of body-contact recreation would still increase the risk of infection to downstream water users by about three times current baseline conditions. The R.A. Weese Filtration Plant in Oceanside would require \$8.2 to \$9.3 million in capital costs with annual operation and maintenance costs of \$151,000 to \$184,000. If the average *Cryptosporidium* concentration were to exceed 1.0 oocysts/100L, water skiing and PWC use would have to be modified or banned altogether. This situation could create economic uncertainty in water skiing and PWC use on the reservoir and business enterprises depending on those activities. Also, the

regional economic benefits from the annual spending of these additional boaters (up to 81,000 annually) would not be significant. Finally, even this limited amount of body-contact recreation would increase the probability of peak events producing significant waterborne infections in the community. Implementing Option 3 would require a change in state law.

Option 4, Unrestricted Body-Contact Recreation Boating, would allow ~~motor~~boating, single-hull sailing, hobie cats, canoeing, rowboating, and kayaking, water skiing, PWC use, and sailboarding. Non body-contact boating would be allowed over the full reservoir. Water skiing, PWC use, and sailboarding would be permitted over the full reservoir. Staff does not recommend Option 4 because it would require the expenditure of additional funds for treatment to maintain baseline conditions or stay within the expected federal standards (up to \$62.4 million at Metropolitan's Skinner treatment plant) in addition to the \$147.7 million now planned but not funded) and up to \$164 million at San Diego area treatment plants. In addition, treatment plant modification would not accommodate peak *Cryptosporidium* concentrations, which are predicted to occur about 1 percent of the time. Also, during the summer months, the predicted number of body-contact recreators in the lake that could be infected by rotavirus could be significant. While full body-contact boating would double total reservoir boating spending, it would add only about 10 percent to overall recreation complex spending in the local economy. Staff is also concerned about the additional liability insurance premiums and some additional liability to Metropolitan from these activities, which are considered higher risk activities than other types of boating. Implementing Option 4 would require a change in state law.

CEQA COMPLIANCE/ENVIRONMENTAL DOCUMENTATION

Metropolitan is currently preparing a *Subsequent Environmental Impact Report* (SEIR) for the entire recreation plan that includes evaluation of non body-contact recreation boating and necessary on-shore facilities to accommodate such boating. Selection of a body-contact boating scenario would require additional environmental evaluation, the determination as to whether any new or changed impacts were significant, and the proposal of mitigation measures (if necessary) in the appropriate environmental documentation under the California Environmental Quality Act (CEQA). This could be accomplished in the current SEIR or in future environmental documentation.

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**SUMMARY OF PUBLIC COMMENTS AND QUESTIONS
EASTSIDE RESERVOIR PROJECT
BODY-CONTACT RECREATION PUBLIC HEARINGS
JULY 29 & 30 AND AUGUST 5 & 6, 1998**

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
LEVEL OF BODY-CONTACT ACTIVITY DESIRED					
FOR Water Skiing and/or PWC Use					
The Hemet City Council supports the divided basin scenario at the 95-percent confidence level (81,000 body-contact recreators), even though that represents only 25 percent of the body-contact recreators who could get on the reservoir.	1	Repeat	Repeat	Repeat	
The City Council wants to work with Metropolitan, Riverside County, and the economists to bring a joint resolution to the Metropolitan Board of Directors.	1	Repeat	Repeat	Repeat	
I support the Hemet City Council's position.	5				1
I support having an extensive range of activities, including body contact activities, with controlled usage to limit the number of people engaging in the activities at any one time or when risks are high.	2	1			3
I support full body-contract recreation.					8
The 12,000 members of Western Boaters Safety Group support body-contract recreation boating.					1
I support body-contact recreation, but recommend stronger laws surrounding recreational use of the reservoir.					1
We support opening reservoirs to all recreation and boating except for 2-cycle engines.					1
I support allowing skiing but banning personal watercraft (PWCs).					2

NOTES:

Numbers indicate the number of people making the comment.

"Repeat" indicates that the same person or organization made the comment at the Hemet hearing and one or more other hearings.

4-2-98

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
LEVEL OF BODY-CONTACT ACTIVITY DESIRED (continued)					
FOR Limited Body-Contact Boating					
I support limited body contact, such as kayaking and canoeing, only.	1				4
The Las Virgenes Municipal Water District supports limited body contact boating, including kayaks rowboats, catamarans, and other forms of boating that result in only incidental body contact with reservoir waters.					1
Sea kayakers support limited body contact recreation at the level that will require the least amount of treatment.	1				
AGAINST Body-Contact Boating					
The City's acceptance of 81,000 body-contact recreators is just a way for it to get its foot in the door. The City Council actually wants to get as many people as possible to the area.	2				
The Municipal Water District of Orange County recommends that no water skiing or PWC use be allowed on the reservoir.					1
Sweetwater Authority believes that body-contact recreation should be minimized or eliminated.					1
I am opposed to any body-contact recreation in the reservoir.	1		1		9
Most people support no or limited body contact only.	1				
The Los Angeles Department of Water and Power believes that body-contact recreation should not be encouraged in any public water supply source.				1	
The Sierra Club (Angeles and San Diego chapters) opposes having any body-contact recreation in the reservoir.		1		1	1

NOTES:

Numbers indicate the number of people making the comment.

"Repeat" indicates that the same person or organization made the comment at the Hemet hearing and one or more other hearings.

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
LEVEL OF BODY-CONTACT ACTIVITY DESIRED (continued)					
OTHER					
If you eliminate PWCs would there be room for all other body-contact recreators?	1				
Why do the number of people on the reservoir drop when you add PWCs?	1				
The Hemet City Council believes there should be no swimming in the reservoir. Young swimmers will have swimming opportunities in the east and west recreation areas.	1	Repeat	Repeat	Repeat	
WATER QUALITY					
FOR Body-Contact Boating					
Drinking water quality and the safety of recreators are paramount to the City of Hemet.	1	Repeat	Repeat	Repeat	
The reservoir is so large, there would be 3.2 billion gallons of water or the equivalent of 300,000 backyard swimming pools per recreator. At that rate, people would have to work very hard to pollute it.	1	Repeat	Repeat	Repeat	
It is hard to imagine that the largest reservoir in Southern California and Metropolitan technology can't handle the number of microorganisms likely to occur.	1		1		
We don't believe there will be many small children in the lake, since there won't be a swimming beach. Therefore, the numbers used in the models, which came from day care centers, hospitals, and so forth, don't really apply.	1	Repeat	Repeat	Repeat	1
You can't compare pollution levels at the ESRP with those at a shoreline lake, such as Lake Perris.	1	Repeat	Repeat	Repeat	
A friend was badly injured while water skiing at Lake Perris. Despite the fact that the beaches had been closed that day due to pollution, our friend didn't get any type of infection from the water.	1				

NOTES:

Numbers indicate the number of people making the comment.

"Repeat" indicates that the same person or organization made the comment at the Hemet hearing and one or more other hearings.

SUMMARY OF PUBLIC COMMENTS AND QUESTIONS, EASTSIDE RESERVOIR PROJECT BODY-CONTACT RECREATION PUBLIC HEARINGS, JULY 29 &
30 AND AUGUST 5 & 6, 1998

Attachment 2-4

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
WATER QUALITY (continued)					
FOR Body-Contact Boating (continued)					
Metropolitan supplies the highest quality water. It would not supply contaminated water to its consumers. Thus, recreation won't affect consumers' tap water.	3	Repeat	Repeat	Repeat	1
A qualified water quality lab in Arizona tested the water in a body-contact recreation lake following the Memorial Day weekend. No measurable <i>Cryptosporidium</i> was detected.	1	Repeat	Repeat	Repeat	
Make restrooms readily available.					1
Concerns regarding personal behavior and pollutants can be dealt with by legislation and public policy measures.					1
To control human pollution of the water, there should be showers at the marinas. In addition, we suggest two rows of five king-size buoys in the shape of lighthouses to house floating comfort stations. They could be serviced as US Forest Service restrooms are serviced. These would ensure a very clean reservoir. For beautification, the lighthouses could light up at night.	1		Repeat		Repeat
Floating comfort stations have worked well at Lake Oroville and other recreation areas.			1		
Body-contact recreation occurs without a water quality problem all over the country.	1				
The duration of time skiers are in the water is negligible.			1		
The boating industry knows of no contamination incident traceable to recreation boating.					1
I question public understanding of new PWCs. They are more like a boat; people are not in the water as they were with earlier designs.		1			
Runoff from the horse trails and from the working farm will pollute the reservoir more than people will.	1				

NOTES:

Numbers indicate the number of people making the comment.

"Repeat" indicates that the same person or organization made the comment at the Hemet hearing and one or more other hearings.

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
WATER QUALITY (continued)					
FOR Body-Contact Boating (continued)					
Farms, dairies, and golf courses have runoff that gets into wells and will then be pumped into the reservoir.	1				
All the water entering the reservoir will have had body-contact recreation in it.	1		1		3
Technology can solve pollution problems. Use the money that comes in from body-contact recreation to fund technical studies.	3		1		1
The boating industry is spending millions of dollars to develop new engines that are more efficient. By 2004 there will be a complete remodel of all boat engines.			1		
Check with San Diego regarding their water quality data. I believe there would be insignificant levels of pollution.	1				
If body-contact recreation is allowed, wetsuits should be mandatory, and fees for skiing should be for a 1-hour time period only. Skiers would have to return to shore to purchase an additional hour. That would give them an opportunity to use on-shore restrooms.					1
Ski boats have 4-stroke engines that are very efficient, resulting in very little water pollution.					1
Consider a trial period of allowing body-contact recreation at the ESRP to see how water quality is really affected.	1				
AGAINST Body-Contact Boating					
Metropolitan's mission is "to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way." No where does it mention skiing of its lakes. Intentionally polluting the water is directly contrary to the mission statement.	2			1	1

NOTES:

Numbers indicate the number of people making the comment.

"Repeat" indicates that the same person or organization made the comment at the Hemet hearing and one or more other hearings.

SUMMARY OF PUBLIC COMMENTS AND QUESTIONS, EASTSIDE RESERVOIR PROJECT BODY-CONTACT RECREATION PUBLIC HEARINGS, JULY 29 & 30 AND AUGUST 5 & 6, 1998

Attachment 2-6

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
WATER QUALITY (continued)					
AGAINST Body-Contact Boating (continued)					
We should respect State law that prohibits body contact recreation on reservoirs where water is stored for domestic use. If State law is opposed to body-contact in drinking water reservoirs, why are we even discussing it?	5				4
The risks associated with body-contact recreation don't warrant making an exception to State law.					1
Sweetwater Authority wants wishes to have multiple-barrier protection for its imported water supply.					1
Allowing body-contact sports in a drinking water reservoir is against common sense and science.					2
This issue is bigger than the desires of water skiers; it is bigger than the City of Hemet; it involves the well being of the 16 million people in Metropolitan's service area. It's hard to understand a decision based on only four Public Hearings.	5			1	1
Body-contact recreation will not improve our water source. It would be good to have the ESRP serve as a buffer between body-contact reservoirs like Lake Silverwood and Lake Havasu and the Skinner filtration plant. Recreators have other choices; they can go to Lake Perris or Lake Elsinore. I have no choice; I must use my tap water.	1				
Windsurfers prefer strictly non-motorized craft on the reservoir.					1
Consider the pollution problems at Lake Perris. We don't want that to happen at the ESRP.	1				2
The Milwaukee <i>Cryptosporidium</i> outbreak is frightening. We don't want that to happen to Metropolitan water consumers.	3				
Is Metropolitan prepared for legal battles in the event of a cryptosporidiosis outbreak?	1		1		

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Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
WATER QUALITY (continued)					
AGAINST Body-Contact Boating (continued)					
The Los Angeles DWP believes that you cannot use current standards to evaluate the risk involved in body-contact recreation. New detection techniques are constantly evolving and revealing new information on contaminants. As detection improves, costs of treatment may be much greater than anticipated. Current standards cannot guarantee safety from <i>Cryptosporidium</i> or other contaminants. Water utilities are united in promoting safe source water. The State of California encourages water quality beyond the current standards.				1	
Consumers don't want human feces and gasoline by-products in their drinking water. Keep the water clean. People can't live without water, but they can live without boats.	3		1		3
There is growing national concern regarding <i>leptosira</i> , a bacterium found in some midwestern lakes.		1			
The Centers for Disease Control have a growing concern about infectious diseases spreading because of worldwide travel. There has been a 50-percent increase in the incidence of infectious disease since 1980.		1		1	
The Sierra Club has concerns about the safety of water customers and recreators. It is especially concerned about the public health risk from <i>Giardia</i> and <i>Cryptosporidium</i> .		1		1	1
The risks are too high for too many people to allow the few to enjoy body-contact recreation.					3
The study did not address the water quality impacts caused by all types of boats being launched (i.e., contaminants from boat trailers and water runoff from related motor vehicles).					1
There should be a State referendum on body contact, since it affects everyone.	1				

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SUMMARY OF PUBLIC COMMENTS AND QUESTIONS, EASTSIDE RESERVOIR PROJECT BODY-CONTACT RECREATION PUBLIC HEARINGS, JULY 29 & 30 AND AUGUST 5 & 6, 1998
Attachment 2-8

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
WATER QUALITY (continued)					
AGAINST Body-Contact Boating (continued)					
Keep the reservoir water clean; remember its primary purpose is to be a reservoir, not a lake.	1		1		
Infection rates indicated in the report are unacceptable.	1				
I'm concerned about contaminants that we don't even know about yet.	1				1
I'm concerned about the long-term effects of the chemicals used in treating the water.	1				2
It isn't right to kill 2 people in 100,000 as long as money is being made.					1
Hemet gets water from its wells; reservoir water won't affect Hemet water users.	1				
I am concerned that water pollution will be compounded because the water in the reservoir will not be constantly circulating.					1
Equestrian trails are outside of the watershed, so nothing from the trails will run off into the reservoir. A great deal of time and effort was expended to locate equestrian trails out of the watershed in order to protect water quality. Allowing body-contact recreation would compromise that effort.	1				1
The farm will be located in the east recreation area, so there will be no runoff from it either.	1				
Even if the water entering the reservoir has some contaminants in it, there's no point in adding more pollutants; the impacts are additive.	1				1
CONCERN About MTBE					
Up to 25 percent of PWC fuel goes into the water. That would cause serious MTBE concerns at the ESRP. I am concerned about two-stroke engines and MTBE, since MTBE can't be filtered out of the water.	3		1	1	1

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SUMMARY OF PUBLIC COMMENTS AND QUESTIONS, EASTSIDE RESERVOIR PROJECT BODY-CONTACT RECREATION PUBLIC HEARINGS, JULY 29 & 30 AND AUGUST 5 & 6, 1998
Attachment 2-9

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
WATER QUALITY (continued)					
CONCERN About MTBE (continued)					
The Municipal Water District of Orange County recommends that fuel containing MTBE be banned on the reservoir.					1
The Orange County Water District encourages prohibiting gasoline-powered engines until a more environmentally compatible additive is substituted for MTBE.					1
The Las Virgenes Municipal Water District has serious concerns about the potential presence of MTBE in reservoir water.					1
Limit boating to rowboats, kayaks, and sailboats until gasoline without MTBE is available. This should be a no-compromise situation. An unconditional ban on MTBE would help forge a powerful coalition. If people unite to demand the elimination of MTBE, the Environmental Protection Agency will respond.			2		
People need to lobby local and state government to ban MTBE from gasoline in California.	1				
Will water from the Colorado River bring MTBE into the reservoir?			1		
What is the source of MTBE? Is it ever airborne? Do both 2-stroke and 4-stroke engines emit MTBE?				1	
OTHER					
Windsurfers do not pollute the water through body contact, since most wear wetsuits.					1
Will any of the water from the ESRP go to the Mills filtration plant? Does Mills have ozone treatment?	1				
Can Lake Matthews be used as a buffer between the ESRP and filtration plants?	1				
How much <i>Cryptosporidium</i> and other contaminants will be introduced into the reservoir by animals and birds?	1		1		

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Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
WATER QUALITY (continued)					
OTHER (continued)					
How high must the reservoir water level be before you can accommodate the 81,000 body-contact recreators?	1				
ECONOMICS					
FOR Body-Contact Boating					
This is a local economic issue. The reservoir has hurt local businesses and it has displaced large developments that would have contributed significantly to the local tax base. Metropolitan owes something to local businesses and local taxpayers. Body-contact recreation would help to compensate. You need to keep in mind the multiplier effect of dollars spent locally. Lake Havasu brings \$75 million per year to its local area. We need to keep recreation dollars in Riverside County.	6				7 plus 1 letter with 33 signatures.
Body-contact recreation would increase local property values.	1				
Tax revenues from body-contact recreation would provide parks and recreation, community building, and other services for those who can't use watercraft.	1				
There should be some way to assess the economic benefit to the cities in the vicinity of the reservoir and apply some of it to cleanup costs.			1		
Economic expansion in California is vital to the public good.					1
You should charge user fees to cover the additional costs of treatment.	2	2			8 plus 1 letter with 33 signatures
As a jet ski owner, I pay fuel, taxes, luxury taxes, service and vehicle registration fees, and trailer tag fees. I would be happy to have my tax money go toward ozonation.			1		1

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Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
ECONOMICS (continued)					
FOR Body-Contact Boating (continued)					
Most of the 800 businesses that are members of the Southern California Marine Association are small. The availability of body-contact boating is important to their survival. Economic factors don't have to conflict with public health issues.			2		
With a reasonable, consistent policy, the ESRP will become a major recreation destination spot. There are 850,000 trailered boats in the State of California. The average boater spends \$30 per day in recreation areas above routine boating expenses. That translates to a lot of money.			2		
AGAINST Body-Contact Boating					
The Las Virgenes Municipal Water District doesn't want to accrue additional costs for activities not benefiting its customers.					1
Any activity that can degrade water will increase risks and costs to Sweetwater Authority and other water suppliers.					1
The cost of treatment versus the benefit to the small number of body-contact recreators doesn't make sense. Fiscal efficiency dictates minimum treatment. And it's unfair to expect 16 million people to foot the bill.	3	2		2	3
If you tried to charge users for treatment costs, it would cost them hundreds of dollars each time they used the reservoir.				1	
Anything that adds to the cost of water must be carefully considered.			1		
Metropolitan should consider costs and benefits in the context of state and federal water quality regulations and standards that continue to expand. Local and municipal utilities are struggling to keep water costs down.					1
The health costs to treat those who become infected from ingesting reservoir water add to the financial costs. These haven't been addressed.					1

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Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
ECONOMICS (continued)					
AGAINST Body-Contact Boating (continued)					
It doesn't make sense to intentionally pollute the water and then have to spend money to bring it back up to standards.		1	1		
I understand Hemet's desire for additional revenue, but Hemet and Riverside didn't build the reservoir. The entire 16 million people in the Metropolitan service area paid through rates and taxes.			3		1
You must consider that there are ratepayers who can't even afford a car, let alone a boat.	1				
OTHER					
You have talked about the cost to convert the Skinner filtration plant, but since the ESRP may be used for emergency or drought supply to the entire service area, will the other plants also have to be converted to ozone?			1		
Have you considered the cost of ozonation in the pipeline system? Ozonation can have a down-line effect.			1		
Will any of the revenue from the reservoir go to the City of Hemet?	1				
Who owns the water rights?	1				
A member of Metropolitan's staff said that filtration would cost \$1.5 billion. Is that accurate?	1				
BIOLOGICAL RESOURCES					
The Sierra Club is concerned that feral or exotic vegetation and animal life will be introduced into the reservoir by boats being launched.		1			1

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Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
NOISE					
AGAINST Body-Contact Boating					
I am concerned about the noise generated by ski boats and PWCs. Noise studies are not sufficient. Noise from body-contact recreation would bring relentless and unacceptable noise to our residential area. We are concerned that the "sound across water" phenomenon will intensify the noise.	1				3
Noise from PWCs will be disturbing to other recreation users. At the very least they should be limited to a separate cove away from other recreators.	1				3
I am concerned about the noise generated by the additional traffic.					1
TRAFFIC					
FOR Body-Contact Boating					
Traffic issues can be worked out. An improved road system is already planned for the area.	2				
AGAINST Body-Contact Boating					
The roads around Hemet can't support the increased traffic that will come with body contact recreation. The local 2-lane roads weren't designed for recreational vehicles. We should wait to see how traffic circulation works with the other recreation activities before deciding about body contact.	3				1
AIR QUALITY					
AGAINST Body-Contact Boating					
The exhaust from 500,000 visiting autos will have a serious negative effect on the air quality in Hemet and San Jacinto.	2				
Emissions from 2-stroke engines would have a deleterious effect on the air in the surrounding area.				1	

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SUMMARY OF PUBLIC COMMENTS AND QUESTIONS, EASTSIDE RESERVOIR PROJECT BODY-CONTACT RECREATION PUBLIC HEARINGS, JULY 29 & 30 AND AUGUST 5 & 6, 1998

Attachment 2-14

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
QUALITY OF LIFE					
FOR Body-Contact Boating					
People don't like change, but change is coming to the area with or without body contact. New residents will have recreation needs.	3				
Lake Livingston in Texas is surrounded by a retirement community, yet it allows body-contact recreation, and the residents and recreators coexist without a problem.	1				
Recreational facilities improve quality of life.					1
AGAINST Body-Contact Boating					
Including body contact recreation will destroy this area as a retirement community. We came to this community for peace and quiet; water skiing will change that. We didn't come here to live in a noisy, overpopulated, smoggy area.	3				
We moved to the Diamond Valley area to experience its serenity and undisturbed ambiance. Body-contact recreation would ruin it.					1
Body-contact recreation will encourage younger people to move into the area, spend money, and then be able to dictate what happens in the area.	1				
Body-contact recreation will attract a "spring break invasion" similar to the one in Palm Springs.					1
POPULATION GROWTH					
FOR Body-Contact Boating					
The area needs to grow; it needs new jobs.	1				
AGAINST Body-Contact Boating					
Hemet and San Jacinto are already projected to double in size in a few years. Body-contact recreation would significantly increase that population growth. We need a buffer of open space.	2				

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SUMMARY OF PUBLIC COMMENTS AND QUESTIONS, EASTSIDE RESERVOIR PROJECT BODY-CONTACT RECREATION PUBLIC HEARINGS, JULY 29 & 30 AND AUGUST 5 & 6, 1998

Attachment 2-15

Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
POPULATION GROWTH (continued)					
AGAINST Body-Contact Boating (continued)					
Hemet already has an urban sprawl problem. The reservoir will accelerate growth; body contract will double the pace. New residents don't have the same concern for the land.	1				1
The pro-growth City Council should step aside until they're ready to foot the bill for growth issues.	1				
RECREATION OPPORTUNITIES					
FOR Body-Contact Boating					
People need local areas for boating. Lake Perris is way over-utilized. We shouldn't have to travel for 5 or 6 hours to boat. Having this large body of water available and not using it for body-contact boating is a waste.	7		2		3
Everyone recognizes the need for fresh-water lakes in Southern California. This is an opportunity for a well-managed multi-use facility.		1			3
Development and environmental concerns have made recreation areas endangered species in Southern California. Given that, restricting access to the reservoir should be done with great care.			1		
Water skiing and Jet Skiing are wonderful family activities.	3		3		5
We all know that recreation opportunities are the key to keeping kids out of trouble. Body-contact water sports can do that.			3		
You should schedule large events, such as sailboat and water ski races and fishing competitions.	1				
The lake is large enough to accommodate both boaters and people seeking quiet, relaxing areas. Segregate uses.	2				
San Diego has a lot of water recreation; Riverside County doesn't.	1				

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Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
RECREATION OPPORTUNITIES (continued)					
AGAINST Body-Contact Boating					
The small lakes at both ends of the reservoir and the water park will provide enough body-contact recreation. They can be configured to accommodate some PWC and water skiing use.	3		1		1
This will be a world class recreation area, providing many recreation opportunities that will bring in dollars to the area. Full body contact is not necessary.	2			1	
People need a place to recreate where they can just relax; where they aren't surrounded by frenetic activity, noise, and pollution. We want this place to be something different.	2				
PWCs and ski boats will conflict with other recreation uses on the reservoir; it isn't going to be big enough to support these activities and other types of boating, such as kayaking, canoeing, sailing, and fishing.				1	
Sea kayakers would like to be able to boat from one end of the reservoir to the other.	1				
OTHER					
Many other lakes across the State have wildly fluctuating levels, making boating difficult.				1	
Seaplane pilots would like to use the reservoir. They have operated in very dense-use areas. They would be willing to pay appropriate use fees.	1		Repeat		
PUBLIC SAFETY					
AGAINST Body-Contact Boating					
Serious injuries and deaths are much more common at reservoirs allowing body-contact recreation than at those not allowing it. I'm concerned about the safety of recreators.	1				2
To our knowledge, the only permanent or serious injuries suffered by windsurfers have resulted from collisions with PWCs.					1

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Comments	Public Hearings				Letters to the Board
	Hemet	San Diego	Costa Mesa	Pasadena	
MISCELLANEOUS					
Will the Board of Directors' decision be final? Could it be revisited at a later date?	2				
What percentage of water going to San Diego will go for drinking? farming? golf courses?	1				
What is the Board's view on the recreation value of the reservoir?	1				
I am happy that Metropolitan chose Hemet as the location for its reservoir. The project has provided great press for the area, and the Domenigoni Parkway and other infrastructure has been built years before it would have been without the project.	1				

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