



Nevada Wildlife Federation, Inc.

An Affiliate of the National Wildlife Federation

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RECEIVED		
DATE		
INITIALS		
CODE		
		2002
		2530
August 24, 2002		
CLASSIFICATION		
PROJECT		
CONTROL NO.		
FOLDER I.D.		
KEYWORD		

James (Pat) Green
Regulatory Compliance Officer
U.S. Bureau of Reclamation
Lower Colorado Region
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Mr. Green:

The Nevada Wildlife Federation provided written comments in January , 2002 on an environmental assessment (EA) for the wastewater effluent receptor. In our letter, we urged the preparation of an environmental impact statement (EIS) for the wastewater effluent receptor because we felt that it was part of a larger system that would have significant impacts on Las Vegas Wash, Lake Mead, and the Colorado River. We felt that the preparation of an EIS would allow potential stakeholders in the decision-making process for the discharge of wastewater effluent into Lake Mead to better review and comment on this significant project. We are pleased to be providing additional written comments for the preparation of the draft EIS on the Systems Conveyance and Operations Program (SCOP).

A great number of issues and questions need to be addressed in the EIS. The proposal to increase, and possibly relocate, wastewater flows into Lake Mead is seemingly simple, but actually complex. Water quality may first appear to be a driving factor in the decision-making process, but water quantity and secondary environmental impacts are also of great importance to the Federation. We hope that our comments will assist the cooperating agencies to better analyze the impacts of their proposed actions and to produce an EIS that will adequately and succinctly identify the best course of action to protect our environment in the face of tremendous growth in the Las Vegas metropolitan area.

WATER QUALITY

Discharges into Lake Mead

Water quality in Lake Mead, particularly the Las Vegas arm, is of great concern to the Federation. Algal blooms in the Las Vegas arm, in recent years, have once again become worrisome. Fish abnormalities in Lake Mead are being linked to chemicals, which are being conveyed into the lake by our sewage effluent, that are largely unregulated by the Federal government at this time. Salinity loads into the lake and Colorado River system have been a concern for decades. Drinking water for the Las Vegas metropolitan area is drawn from the lake

approximately six miles downstream from where sewage effluent, storm water runoff, and other nonpoint contaminant sources enter Lake Mead.

While a strong case can be made for relocating the discharge of sewage effluent into the lake and dispersing the effluent over a larger volume of water, the Federation does not endorse the idea that dilution is the solution. The total mass of contaminants entering the Lake and Colorado River system must be examined for the impacts on fish and humans that may be far removed from the discharge point. The discharge of pharmaceuticals and personal care products into a body of water that is relatively clean, and serves as the primary source of drinking water for millions of people along the lower Colorado River, should concern anyone. We expect the EIS to consider non-criteria, as well as criteria, pollutants in the waters discharged into the lake as consideration is given to moving the discharge point for effluent into the Lake.

We expect some consideration will be given to turbidity levels at proposed, alternative discharge points where turbidity levels at those locations are presently better than in the Las Vegas arm of Lake Mead.

We encourage the cooperating agencies to look at the operation of the wastewater treatment plants in the Las Vegas metropolitan area, the Las Vegas wash, and the lake as an entire system. We understand that modeling is being undertaken to do this and that the modeling results will be provided in the EIS. We ask that the operating criteria, for the entire system, be addressed and highlighted in the EIS as well. Just as we have an operations plan for the dams and reservoirs on the Colorado River, we need a more sophisticated operating plan for the discharge of effluent into the Lake than we presently have. The troublesome algal blooms and fish abnormalities in Lake Mead should be evidence enough that our current operating plan is inadequate.

The EIS should provide the statements, and logic, for how the cooperating agencies will balance the need for more water to fuel population growth in the metropolitan area with increased demands for water along the entire Colorado at the same time the Lake Mead reservoir is being managed for flood control and power generation. How will the future availability of water from the Colorado River impact wastewater volumes and quality into Lake Mead? What criteria will cooperating agencies use to decide that more water can be obtained from the lake, more wastewater can be discharged into the lake, and that environmental quality is adequately protected? While statements have been made that federal standards will be observed, we have seen that the existing federal standards have not been enough to protect the Lake and sensitive receptors. It may very well be that site-specific, tougher standards will be needed to protect the lake and users of the waters from undue harm

The Federation supports the use of the Las Vegas wash and wetlands to further polish the wastewater from the treatment plants. Properly maintained wetlands, of sufficient size, can reduce the impacts of stormwater runoff on Lake Mead and provide habitat for a variety of species. Erosion that threatens various structures can be reduced through a well-designed and operated wetlands.

A critical question is: how much stormwater runoff and sewage effluent will be funneled through

the wetlands and what the wetlands capacity to treat those discharges will be? We would like the EIS to contain a summary for how the wetlands will be used and criteria for the amount of wastewater and flood waters that will flow through the wetlands on a daily, seasonal, and yearly basis. Will reservoirs be utilized to intercept high-peak stormwater runoff flows for later conveyance through the wetlands and further polishing? How will the flows of wastewater through the wetlands and, alternatively directly to the Lake, be determined, and who will determine them? These are some of the operating criteria that we would like to see covered in the EIS.

Drinking Water

As more wastewater is discharged into Lake Mead at different points and different conditions, the impact on our drinking water must be examined. We understand that increased treatment of our drinking water has been, and is being, implemented because of increased contaminants in our lake, e.g. cryptosporidium. What are the plans and criteria for treatment of our drinking water as more effluent is being discharged into the lake - possibly at new locations?

Downstream Users

While the alternate discharge of effluent into the lake below our water intake may be beneficial for further protection of our drinking water supply, what impact will this discharge have on users of the river below the discharge point? Will recreational use of the lake and river in the vicinity of the discharge point be adversely affected? Just as we are beginning to see evidence of the effect of sewage effluent from a major metropolitan area on flora and fauna in our present discharge area, will we see the same effects at another discharge point, e.g., fish abnormalities?

The Lake Mead National Recreation Area is part of the national park system; consequently, we would expect water quality criteria for the lake to be better than other water bodies. Water quality standards may be established in many different ways for a variety of purposes. Compliance with those standards can be measured in many different ways, e.g. annually or seasonally, averaged over a specified volume, or measured at a specific point. We expect a complete discussion of the various standards and criteria that may be used to assure that water quality in this important national recreation area is not further degraded.

WATER QUANTITY

A presumption with the proposal to increase and redirect wastewater effluent into Lake Mead is that southern Nevada will continue to withdraw increasing amounts of water from the Colorado River in excess of our original water allocation. Return flow credits is a critical factor. While the Federation supports increased flexibility in complying with the Law of the River and in seeing that water efficiency is increased to the point where surpluses may be reallocated for additional growth, the Federation strongly believes that greater emphasis must be given to environmental protection. Among the concerns are: endangered species of fish in the river, endemic species of fish in the Colorado, riparian zones, and the Colorado River delta. Return Flow Credits have been of benefit to Nevada in the past, but the present water quality problems in the Las Vegas arm

of Lake Mead illustrate our contention that there are limits.

A limit that should be addressed in this EIS is the quantity of water that Nevada will be able to withdraw from the river. A serious discussion of this limit is needed because it affects the amount of wastewater that must be disposed, and it affects how the system, outlined earlier in this letter, for treating our wastewater must be sized and operated. We expect the EIS to contain a serious discussion of how much water southern Nevada will be able to withdraw from the river in the future, particularly under long-term drought conditions. (Similarly, we expect the EIS to convey the analysis of wastewater impacts on a lake that may be at low levels never seen in its history, but possible under long-term changes in our climate.)

FLOOD WATERS

Development in the Las Vegas valley and flood control structures above the Las Vegas wash have an impact on water quality and water quantity through the wash. We expect the EIS will discuss how the SCOP and flood control efforts to stabilize flows through the wash will improve the ability of the wash to cleanse stormwater runoff and sewage effluent.

How much stormwater will be allowed to pass through the wash and at what rate? How will water quality discharged from the wash into Lake Mead be monitored, and what standards will be used to judge the quality? What steps will be taken to ensure that floodwaters do not destroy structures and wetlands in the wash? What steps can be taken to improve water quality in storm water runoff before it reaches the wash?

SECONDARY IMPACTS

Air Quality

Attainment of federal, primary national ambient air quality standards has been problematic in southern Nevada for years. Attainment of health standards for carbon monoxide, particulate matter has been difficult. While improvements in these pollutant levels over the years may be touted by some, the rapid population growth of the Las Vegas metropolitan statistical area and the continued growth in vehicle-miles traveled makes future attainment of these standards difficult. Emissions of ozone precursors within the valley and upwind of the valley makes attainment of the new, lowered standard for ozone questionable. Measures to preserve and improve visibility in the Southwest, in light of the growth in population in southern Nevada and major sources of fine and large particulates, must be considered in with the amendment of the Clean Air Act in 1987. A question to be considered in the EIS is to what extent air quality regulations and federal land constraints will limit growth in population and growth in water needs and wastewater production?

Interception, Containment and Treatment of Major Non-Point Sources

Presently, perchlorate is being intercepted from the Las Vegas wash and being treated. Plans are underway to develop settling pond areas previously owned by the Basic Metals Industries for

residential, commercial and light industrial uses. We would like to see some discussion of how cleanup plans for these properties will ensure that additional releases of contaminants into the wash will be prevented.

There are plans for Clark County to acquire from the Bureau of Land Management (BLM) the Sunrise landfill. This municipal landfill was not built to present day standards and has been reported in the news media to have released materials beyond its borders, particularly after rainfall events. The Federation would like some assurances, in the EIS, that development of this landfill will not release contaminants into the wash and Lake Mead and that construction of the proposed wastewater effluent receptor will not significantly change the hydrogeologic conditions in the vicinity of the landfill to where contaminants might be more easily conveyed away from the landfill along the constructed wastewater effluent excavation.

CONSTRUCTION AND FINANCING IMPACTS AND ISSUES

We expect the EIS will present the proposed timing of construction activities as well as how the construction of various components of the total system, e.g. impoundments in the Las Vegas wash and reconstruction of the wetlands, will be linked to water quality criteria. Will the constructed works be oversized and built well before they are needed, or will they be built just in time? Will wastewater flows into the lake be allowed to exceed water quality criteria and bring about further degradation of the Las Vegas wash before satisfactory solutions are implemented?

We also expect financing for the proposed treatment and conveyance system will be discussed.

ALTERNATIVES

Conservation

There has been little effort to reduce wastewater generation in the valley through conservation. While it may be argued that there has been an emphasis on conservation of drinking water, much of the emphasis has been on the supply side - either through pricing or through incentives aimed at reducing water use in landscaping. Much more can be done inside residences, such as changing the fees structure for wastewater generation and encouraging the use of retrofits to reduce wastewater generation, e.g. low-flush toilets and faucets. The cost of these measures, on a dollars per gallon saved basis, should be compared to the costs of constructing and operating the system being considered in this EIS.

Increased Reuse of Wastewater

An alternative to increasing discharges of stormwater and wastewater into the wash and into Lake Mead is reuse of those waters. While increased efforts are being made in the valley to reuse water for golf courses and landscaping, it appears that greater efforts may be made in this area. What are the tradeoffs and advantages in promoting greater reuse of wastewater versus increasing discharges of wastewater into the lake?

Since wastewater is likely going to be used in close proximity to where it was created and captured, a benefit may be reduced infrastructure and energy costs in reducing the amount of drinking water that must be conveyed at long distances to supply the total water needs of an area.

RELOCATION OF OUR WATER INTAKE

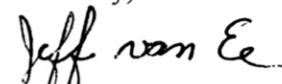
An alternative to the expensive relocation of our discharge of wastewater effluent into the Las Vegas Wash and six miles upstream of our water intake would be the relocation of our water intake upstream of the Las Vegas wash. This option has been examined before, but it needs to be examined and discussed in this EIS. While the problem of decreasing water quality in the Las Vegas arm of Lake Mead will not be addressed by this alternative, the increased safety afforded to our drinking water supply is apparent. The lower water level of Lake Mead has exacerbated some of the problems that we've been having in the Las Vegas arm of Lake Mead. The marina is reported to be moving, and the sediments already deposited in the Las Vegas arm will not go away with the proposed relocation of our sewage effluent into the lake. If enhanced protection of our drink water supply is an important decision-making criteria for SCOP, then this alternative should be examined. What is the difference in the cost of piping sewage effluent to the vicinity of Hoover dam in comparison to the cost of moving our water intake upstream from the Las Vegas arm of Lake Mead?

CLOSING REMARKS

We believe one of the most useful aspects of the draft EIS would be the succinct listing of important decision-making criteria for the proposed action. Prioritization of those factors is important along with a discussion of the costs, benefits, and risks associated with each of the criteria. What importance is given to the protection of the interests of downstream users of the Colorado River, e.g. indian tribes, other states, and other cities? What importance is given to reducing salinity levels in the Colorado River by intercepting and redirecting flows from the Las Vegas wash? What importance is given to attaining a variety of water quality criteria? What importance is given to protecting fish? These questions, and more, need to be considered in presenting to the reader the criteria that are driving this proposed action versus maintaining the status quo, or rejecting other alternatives. If the authors of the EIS are successful in clearly presenting these decision-making criteria, we believe the EIS process will have been well worth the time and effort.

The Federation looks forward to reviewing the draft EIS. We expect to provide more specific comments at that time. We hope that the EIS will prove to be a useful decision-making document for a complex situation. Our hope is that water quality in the lake and in our taps will be improved with minimal delay.

Sincerely,



Jeff van Ee