

ADDENDUM TO ENVIRONMENTAL AGREEMENT
POLLUTION ABATEMENT PROJECT LAS VEGAS WASH & BAY
Report To The Governor

And
The Legislative Commission

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Final Alternate Plan
Las Vegas Wash/Bay
Pollution Abatement Project
July 1974

BY
BOARD OF COUNTY COMMISSIONERS, CLARK COUNTY, NEVADA

Board of County Commissioners

CLARK COUNTY COURTHOUSE
LAS VEGAS, NEVADA

July 1, 1974

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COUNTY ADMINISTRATOR
Phone: 386-4011

The Honorable Mike O'Callaghan
Governor of Nevada
and the Honorable Members of the
Legislative Commission
State Capitol Building
Carson City, Nevada 89701

Gentlemen:

The 57th Session of the Nevada State Legislature expressed concern over the failure of a previously recommended Lake Mead pollution abatement plan to emphasize water reclamation.

This concern is expressed in Senate Bill 288 (Nevada Revised Statutes Chapter 790) in the following manner:

"...Among the factors which will determine the ultimate resolution of the problem, the protection and the fullest beneficial use of the resource represented by the water shall be given top priority. The Legislature finds that the alternative courses of action that may be developed to find satisfactory solutions are necessary for the preservation of this valuable natural resource of the state...."

On July 1, 1973, Clark County assumed the responsibility for the development of an alternative recommendation to abate the pollution of Lake Mead's Las Vegas Wash and Bay, emphasizing the fullest beneficial use of wastewater.

On September 1, 1973, the Board of County Commissioners indicated its confidence that a plan, designed to achieve efficient management of the resource and based upon the principle of beneficial use, could be developed to meet the future water requirements of Southern Nevada.

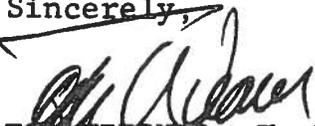
Submitted herewith is a recommended Facilities Plan and Addendum to the Environmental Assessment developed by Clark County Wastewater Management Agency Staff and consultants to abate the pollution of Lake Mead. This plan is in harmony with the legislative mandate to achieve the fullest beneficial use of the resource.

The Honorable Mike O'Callaghan
July 1, 1974
Page Two

The alternative recommendation combines the immediate need to abate the pollution of Lake Mead with a long-range regional wastewater management program. It is a program that recognizes the future need for reclaimed water as a supplement to Southern Nevada's potable water supply.

We respectfully request your approval.

Sincerely,



TOM WIESNER, Chairman
Board of County Commissioners

TW:DF:lj

Enclosure

REPORT TO THE GOVERNOR AND THE LEGISLATIVE COMMISSION

FINAL ALTERNATE PLAN
LAS VEGAS WASH/BAY
POLLUTION ABATEMENT PROJECT

BY
CLARK COUNTY, NEVADA

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JULY 1, 1974

CLARK COUNTY
WASTEWATER MANAGEMENT AGENCY
REPORT TO THE GOVERNOR AND THE LEGISLATIVE COMMISSION
FINAL ALTERNATE PLAN
JULY 1, 1974

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"The task of maintaining an adequate water supply for a violently expanding population accustomed to heavy use of water presents an urgent and immediate problem."

Vance Packard
THE WASTE MAKERS

PREFACE

The purpose of this report is to communicate the thrust of Clark County's six-point comprehensive plan for wastewater management to the non-technical reader as well as the technical reader.

This document, referred to by the staff as the "*parent document*," was prepared by the Wastewater Management Agency as a non-technical summary of Clark County's alternative recommendation to abate the pollution of the Las Vegas Wash/Bay area of Lake Mead.

The two major annexes accompanying the parent document, the Facilities Plan and the Addendum to the Environmental Assessment, present and evaluate the proposed plan in greater technical detail. These annexes have been prepared by consultants to Clark County in cooperation with the County Sewage and Waste Water Advisory Committee and the Wastewater Management Agency Staff.

This parent document includes a glossary of terms prepared to present operational definitions for some of the terms and phrases used in the report. Additionally, the Facilities Plan and the Addendum to the Environmental Assessment each include a glossary.

ABOUT THE COVER

Clark County's six-point program to abate the pollution of Lake Mead and to emphasize the beneficial reuse of wastewater is pictorially depicted on the cover of this report.

Reading clockwise from the top:

A photograph of the beautiful golf course at the Dunes Hotel in Clark County illustrates the unrealized market potential for the sale of reclaimed water as an irrigant throughout the Las Vegas Valley.

The photograph of a cooling tower depicting the current and potential industrial uses for reclaimed water was taken at the Nevada Power Company's Sunrise Generating Station near Sunrise Mountain in Clark County. The sale of large quantities of reclaimed water for industrial use will substantially reduce the public costs of pollution abatement facilities.

This photograph illustrates Clark County's concern over the degradation of the water quality of Lake Mead. Clark County, in cooperation with the University of Nevada, Las Vegas, Biology Department, has developed a sophisticated water monitoring program on a continuing basis.

The photograph of Las Vegas Wash captures the uniqueness of this topographical feature in a desert environment. The designation of Las Vegas Wash as a wildlife refuge and regional recreational area is an important consideration in Clark County's six-point program.

A photograph of the introduction of highly saline waters into Lake Mead via Las Vegas Wash depicts the need for a saline groundwater collection system to reduce the input of salts into the Colorado River System.

The last photograph, also taken at the Nevada Power Company's Sunrise Generating Station, illustrates secondary effluent receiving advanced treatment.

SUMMARY

This report, entitled "*Final Altermate Plan*," is submitted in accordance with the directive contained in Chapter 790, Statutes of Nevada, 1973.

The report provides the reader with a description of Clark County's six-point alternative plan to abate the pollution of Lake Mead, emphasizing the fullest beneficial use of reclaimed water.

This report consists of three documents: a "*parent document*" prepared by the Wastewater Management Agency Staff; a Facilities Plan (Annex A) prepared by Nevada Environmental Consultants; and an Addendum to the Environmental Assessment (Annex B) prepared by VTN/Jones & Stokes. Each document contains its own summary and glossary.

The parent document provides non-technical information relating to the recent history of the pollution abatement project and a description of the alternative recommendation.

Descriptions of the compositions and activities of the Sewage and Waste Water Advisory Committee and the Las Vegas Wash Development Committee are included in this report. Also included is a discussion of the Clark County Waste Water Negotiating Committee's efforts to achieve an agreement among the City of Las Vegas, the Clark County Sanitation District, and the Nevada Power Company for the sale of reclaimed water for industrial use at a proposed Nevada Power Company generating station.

The report discusses the proposed areawide (Clark County) salinity control investigation, as well as the role of two consulting engineering firms and the University of Nevada, Las Vegas, Biology Department in the effort to abate the pollution of Lake Mead.

The significance of public participation in the development of the alternative recommendation is discussed in Section VIII of this report.

A chronology of the recent efforts on the part of Clark County, the Colorado River Commission of Nevada, the State of Nevada, and the Colorado River Basin states to develop a salinity regulation for the Colorado River System is detailed under the section heading "*Salinity and the Colorado River*."

A status report on the Water Quality Management Plan for Clark County is included and a complete explanation of the pollution abatement project funding situation, along with a tentative action timetable, concludes this parent document.

Two figures and ten appendices have been attached to support the parent document.

Annex A, the Facilities Plan, and Annex B, the Addendum to the Environmental Assessment, describe the alternative plan and its impact on the environment in complete detail.

I. AUTHORITY

This report has been prepared in compliance with the provisions of Chapter 790, Statutes of Nevada, 1973 (NRS 790). That Act recognizes Clark County as the instrument of government to assume responsibilities for the collection, disposal, and treatment of sewage and wastewater. The Act also assigns Clark County the responsibility for the development and implementation of a pollution abatement plan for the Las Vegas Wash-Lake Mead area. The Act was enacted in April of 1973 and became effective on July 1, 1973.

II. INTRODUCTION

A. BACKGROUND

The 57th Session of the Nevada State Legislature designated Clark County as the instrument of State government responsible for abating the pollution in the Las Vegas Wash-Lake Mead area.

The sources of the pollution of Las Vegas Wash/Bay had been previously identified by the Environmental Protection Agency (EPA), and the Las Vegas Valley Water District (LVVWD) had developed a plan to eliminate the pollution problem.

The LVVWD plan, simply stated, provided for the collection of municipal and industrial wastewaters and exportation to a dry lake for evaporation. The plan also proposed a modest water reclamation research and development effort.¹

The Legislature approved the LVVWD plan but expressed concern over the lack of emphasis on "*the fullest beneficial use*" of the resource, and Clark County was authorized to explore alternative solutions.

B. THE ALTERNATIVE RECOMMENDATION

On September 1, 1973, 60 days after Clark County assumed responsibility for the pollution abatement

¹Las Vegas Valley Water District REPORT TO THE GOVERNOR AND LEGISLATIVE COMMISSION, POLLUTION ABATEMENT PROJECT, LAS VEGAS WASH AND BAY, December 1972.

project, an alternative recommendation was submitted to the Governor and the Interim Finance Committee.²

The alternative recommendation, simply stated, provides for a plan emphasizing reclamation and the beneficial use of wastewater and de-emphasizing the export of wastewater. This six-point recommendation is summarized as follows:

1. Advanced Wastewater Treatment (AWT).
 - a. Construct a 90 million gallon/day AWT plant. Reclaimed water from this plant will satisfy Nevada water quality standards for Las Vegas Wash.
 - b. Reuse of reclaimed water will decrease demands upon the potable water supplies and augment our reserves.
2. Beneficial Use of Reclaimed Water.
 - a. Sale of reclaimed water to Nevada Power Company for industrial use.
 - b. Assures adequate energy for Las Vegas Valley in the future.
 - c. Release reclaimed water into Las Vegas Wash to maintain the Wash as a recreational area and wildlife refuge.
 - d. Develop an in-valley irrigation system to utilize reclaimed water for the irrigation of parks, greenbelts, golf courses, and cemeteries.
3. Cooperation in the Development of a Saline Groundwater Collection System.
 - a. The Bureau of Reclamation is preparing a report on this system. Clark County has supported this effort by providing research data and staff support to this Federal agency.

²Clark County, Nevada, REPORT TO THE GOVERNOR AND THE INTERIM FINANCE COMMITTEE, ALTERNATIVE RECOMMENDATION, LAS VEGAS WASH/BAY, POLLUTION ABATEMENT PROJECT, September 1973.

- b. Clark County has also supported Federal legislation for salinity reduction measures for the Colorado River including a saline groundwater collection system for Las Vegas Wash.
4. Recreational Potential of Las Vegas Wash.
- The Las Vegas Wash Development Committee (WDC) and the Sewage and Waste Water Advisory Committee (SWAC) recommended that the recreational potential of Las Vegas Wash be developed. A copy of the WDC report of April 5, 1974, is included in Annex B.
5. Develop the Market Potential for the Sale of Reclaimed Water.
- a. Utilize the in-valley irrigation system to deliver reclaimed water to large irrigators; i.e., golf courses, cemeteries, parks, etc.
 - b. Explore the market for expanded industrial uses of reclaimed water.
6. Monitoring Program for Las Vegas Wash/Bay.
- a. Phase 1 of this water quality monitoring program was completed in December 1972.
 - b. Phase 2 is currently underway and will be completed in February 1975. This phase includes a cooperative agreement between Clark County and the Southern Nevada Water System (SNWS).
 - c. Phase 3 will employ additional sophisticated water quality monitoring techniques and will continue the cooperative agreement with the SNWS.

C. PROGRESS REPORTS

Clark County has filed two quarterly progress reports with the Governor and the Legislative Commission.³ These written progress reports were

³Clark County, Nevada, REPORT TO THE GOVERNOR AND THE LEGISLATIVE COMMISSION, December 1973 and March 1974.

supplemented on February 11, 1974, with a Clark County Wastewater Management Agency oral presentation to the Legislative Commission in Las Vegas.

D. FINAL REPORT

The Legislature also provided in NRS 790 that, should Clark County make an alternative recommendation, a final plan to implement that recommendation must be developed no later than July 1, 1974. This report and the two accompanying annexes comprise the recommended implementing plan for the alternative recommendation.

This report, when combined with the alternative recommendation of September 1, 1973, and the quarterly progress reports, provides the reader with a comprehensive record of Clark County's compliance with the Legislative mandate to abate the pollution of Lake Mead with a project emphasizing the reclamation of wastewater.

This final report has been organized in the following manner:

1. The parent document provides the reader with information on the management of the project and actions authorized by the Board of County Commissioners.
2. Annex A, the Facilities Plan, contains a detailed description of the proposed pollution abatement project.
3. Annex B assesses the impact the implementation of the Facilities Plan will have on the environment.
4. The annexes have been prepared by consultants to Clark County and are in conformance with Federal guidelines. These documents must be reviewed by EPA before Federal funding will be made available.

III. SEWAGE AND WASTE WATER ADVISORY COMMITTEE

The Clark County Sewage and Waste Water Advisory Committee (SWAC), authorized by NRS 790, has met on 23 occasions since its inception in July 1973.

Representatives from the five major Valley governments, the Clark County Sanitation District, and the LVVWD

make up this committee, which serves as an advisory body to the Board of County Commissioners. Each entity has proportional representation.

A list of the SWAC representatives is attached as Appendix 1 to this report.

SWAC endorsed the alternative recommendation before it was approved by the Board of County Commissioners in August 1973 and has been actively involved in the development of the proposed pollution abatement project and related wastewater management matters since that time.

SWAC reviewed the Facilities Plan and Addendum to the Environmental Assessment and participated in a joint meeting with Wastewater Management Agency Staff and consultants to discuss these documents and make suggestions relating to their contents.

On June 12, 1974, SWAC recommended to the Board of County Commissioners that the alternative recommendation, as detailed in the final plan, be approved and sent to the Governor and the Legislative Commission for their consideration.

IV. LAS VEGAS WASH DEVELOPMENT COMMITTEE

The Las Vegas Wash Development Committee (WDC) was created by the Board of County Commissioners in August 1973 to develop recommendations relating to the potential of Las Vegas Wash as a recreational area and wildlife refuge.

Members of the WDC represent a broad cross section of Southern Nevada's environmentally oriented organizations and appropriate Federal, State, and local governmental departments. A list of WDC members is attached as Appendix 2 to this report.

The WDC has met on 11 occasions since its inception. Three WDC sub-committees have also held meetings to collect data and research alternatives during the development of the WDC April 5, 1974, Report to the Board of County Commissioners. This report was reviewed favorably by SWAC and accepted by the Board of County Commissioners on April 22, 1974. Following Commission acceptance, the report was transmitted to the National Park Service (Lake Mead National Recreational Area), the Nevada State Park System, and the Clark County Parks and Recreation Department for review and comment in accordance with Recommendation No. 1 of the WDC report.

The report is an important contribution to Clark County's comprehensive plan for wastewater management and will be used as a basic reference to guide the development of the recreational potential of Las Vegas Wash in a professional and orderly manner.

The Board of County Commissioners authorized implementation of three more of the Report's seven recommendations on May 31, 1974. The WDC recommendations are attached as Appendix 3 to this report, and the recommendations approved for implementation have been asterisked. The complete report is attached to Annex B.

The WDC will continue to serve as an important advisory group to the Board of County Commissioners.

V. WASTE WATER NEGOTIATING COMMITTEE

On August 6, 1973, the Board of County Commissioners appointed a Waste Water Negotiating Committee to explore the development of a contract with Nevada Power Company (NPC) or others interested in acquiring secondary water rights for power, industrial, or other beneficial uses.

Consummation of an agreement for the sale of large amounts of wastewater is particularly important because it is basic to the achievement of several important community goals.

Sale and use of wastewater as a cooling agent at a proposed generating station achieves a beneficial use that will provide adequate energy for Southern Nevada for years to come. Revenues generated from the sale of wastewater can be used to construct, operate, and maintain pollution abatement facilities including the most advanced wastewater treatment plant in the United States.

On December 28, 1973, the Board of County Commissioners authorized its Chairman to sign a four-party contract among Clark County, City of Las Vegas, Clark County Sanitation District, and NPC for the sale of reclaimed wastewater. This document was reviewed by the NPC Board of Directors on February 14, 1974, and received tentative approval. However, the NPC Board of Directors' review resulted in the request for the rewording of several clauses and the reopening for discussion of one provision in the contract relating to financial considerations. These discussions have resulted in a 44-page contractual document which is highly technical in nature.

The City of Las Vegas requested five changes in the contract and, in all cases but one, a mutually satisfactory solution was found. The only issue remaining to be resolved was a City of Las Vegas proposal to establish two committees.

One committee would be a technical committee serving in addition to SWAC, which was established under NRS 790. The second committee would be a policy committee composed of elected officials, similar to the Regional Street and Highway Commission, to advise the Board of County Commissioners.

County representatives believed that SWAC was an adequate advisory committee. After much discussion, it was concluded that the issue of the establishment of two committees could not be resolved by staff. Following a series of meetings among County officials, City of Las Vegas officials, and NPC representatives, it was agreed to present the contract with the one unresolved issue to the City of Las Vegas Commission on June 19, 1974. At that meeting, following a complete discussion of the one remaining issue to be resolved, the City of Las Vegas Commission voted to accept the contract without the two committees.

This was a particularly magnanimous gesture on the part of the City of Las Vegas and culminates a long and arduous effort to consummate a four-party contract for the sale of reclaimed water.

VI. AREAWIDE SALINITY CONTROL INVESTIGATION

One of the entities to be served by the proposed AWT facility, the Clark County Sanitation District (CCSD), has been issued a National Pollutant Discharge Elimination System (NPDES) permit by the EPA. Among the provisions of the permit is the requirement that an investigation of the applicant's sewer system be conducted. This investigation is intended to locate all controllable sources of salinity to the system. After the sources have been located, the holder of the permit is then required to develop and implement a control program.

This requirement will be imposed by EPA on all NPDES permit applicants in the Las Vegas Valley. Consequently, the cities of Las Vegas, North Las Vegas, and Henderson have agreed to join with the CCSD in an areawide salinity control investigation.

Representatives of each entity have adopted a formula to apportion the local share (25 percent) of the investigation's total cost. It has also been agreed

that SWAC is the proper forum to review the proposals from prospective consultants and to recommend a consultant for the conduct of the salinity investigation to the Board of County Commissioners.

The following benefits are expected to result from this cooperative action:

- A. One areawide study by one consultant, administered under one contract, will cost less than four separate studies by various consultants.
- B. The requirement for each entity to make a separate application for an EPA grant will be eliminated. The Clark County Wastewater Management Agency will request that total costs of the combined salinity investigations be added to the Wastewater Management Agency Step 1 Federal grant application. This addition should result in 75 percent Federal funding of the areawide investigation.
- C. The required information will be available when an application is made for an NPDES permit for the AWT plant.

Related correspondence between Clark County and EPA Region IX has been attached as Appendix 4 to this report.

VII. CONSULTANTS

Three consultants have been retained by the County to provide the expertise required to develop this Final Alternate Plan and to execute a continued water quality monitoring program for Lake Mead. Documents prepared by two of the consultants are included as Annex A and Annex B to this report. The third consultant is conducting the second phase of the Lake Mead water quality monitoring effort, and it is Clark County's intention to continue this important program.

Annex A, the Facilities Plan, was prepared by Nevada Environmental Consultants (NECON). Environmental and economic considerations were used as basic criteria to screen ten possible solutions for pollution abatement. This screening reduced the ten solutions to four. A more detailed evaluation then narrowed the choice from four to one. A detailed description of all aspects of the selected alternative, including costs, is presented in this Annex.

Annex B, the Addendum to the Environmental Assessment prepared by VTN/Jones & Stokes, assesses the environmental impacts of the selected alternative. These impacts are comparatively rated against the impacts

of the nine alternatives discussed in the Environmental Assessment of November 1972.⁴ This document will be used by EPA as the basis of that agency's Environmental Impact Statement (EIS). An EIS is required by the National Environmental Policy Act of 1969.

The third study is the Lake Mead Water Quality Monitoring Program. This program is being conducted by the Biology Department of the University of Nevada, Las Vegas (UNLV). The program's second phase will be completed in February 1975 and the report will be issued in April 1975. Figure 1 illustrates the locations of the eight Lake Mead water quality monitoring stations.

A previous water quality study of Lake Mead,⁵ also conducted by UNLV, provided a basis for establishing realistic numeric values for the water quality standards. The current investigation, referred to as the "*second phase*," will provide additional backup information. In the future, there is a strong possibility that additional items may be included in the water quality standards. A portion of this investigation is devoted to determining the importance of these items and the level at which they become significant. Thus, the imposition of arbitrary standards can be avoided.

Another aspect of this investigation will determine if remote sensing devices can be used to measure chlorophyll concentrations. All living green plants, regardless of size, contain chlorophyll. The relative health of a lake can be expressed in terms of the quantity of plant life present. Successful development of this system can result in a low-cost monitoring program for the future.

An interesting discovery has been made which requires further examination. Apparently, conditions are better now at the mouth of Las Vegas Wash than they were in 1972. At stations out in Las Vegas Bay, the converse is true. Although it is premature to hazard a guess, a possible explanation may be related to the higher water level at this time.

⁴VTN/Jones & Stokes, ENVIRONMENTAL ASSESSMENT, POLLUTION ABATEMENT PROJECT, LAS VEGAS WASH AND BAY, ANNEX B, prepared for the Las Vegas Valley Water District, November 1972.

⁵Drs. Deacon and Tew, University of Nevada, Las Vegas, INTERRELATIONSHIPS BETWEEN CHEMICAL, PHYSICAL, AND BIOLOGICAL CONDITIONS OF THE WATERS OF LAS VEGAS BAY OF LAKE MEAD - AN APPLIED ECOLOGICAL APPROACH TO PROBLEM SOLVING, prepared for the Las Vegas Valley Water District, May 11, 1973.

In any event, the data gathered is important scientific background information, providing a yardstick to measure the effectiveness of the pollution abatement effort.

A cooperative agreement between Clark County and the SNWS has been achieved, and one of the sampling stations was established at the SNWS Lake Mead intake tunnel. UNLV provides the equipment for sampling at the required depth and the SNWS chemist assists in the identification and counting of organisms. The objective of this program is to obtain information on odor-causing substances and organisms.

Clark County has assumed the financial responsibility for this cooperative effort.

VIII. PUBLIC PARTICIPATION

The development of the alternative recommendation has been aided considerably by media interest and the active monitoring of the recommendation's development by environmentally oriented groups and individuals.

The WDC, described in Section IV of this report, has made a particularly significant citizens impact on the final recommendation.

Additionally, Wastewater Management Agency Staff has actively sought public participation through the use of a 30-minute slide presentation. This presentation identifies the sources of the Lake Mead pollution problem and discusses the alternative courses of action that have been considered to solve the problem.

This presentation has been particularly popular with university and high school environmental classes and local service clubs. The 30-minute slide talk is followed by a question and discussion period.

On June 6, 1974, Clark County conducted a public hearing on the alternative recommendation. Copies of the draft Facilities Plan and draft Addendum to the Environmental Assessment were widely distributed to interested organizations, individuals, and public libraries in the area. A complete distribution list has been included in Annex A to this report. The hearing resulted in a favorable reaction by those attending. A complete transcript of this hearing has been transmitted to EPA Region IX and is available for review in the Wastewater Management Agency offices.

IX. SALINITY AND THE COLORADO RIVER

A. WATER QUALITY STANDARDS

On April 9, 1974, the State Environmental Commission adopted amendments to the Water Pollution Control Regulations. The adoption of these amendments is particularly significant to the pollution abatement project because, although strict enough to require one of the most sophisticated AWT plants in the United States, the regulations do not force the residents of Las Vegas Valley to export their wastewater for evaporation. The proposed alternative recommendation and the proposed plan satisfy the water quality standards.

The regulations, applicable to the Las Vegas Wash, are included in Annex A. A complete copy of the regulations are provided in Annex B.

B. COLORADO RIVER BASIN SALINITY CONTROL FORUM

Passage of the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500) generated questions regarding Federal actions with respect to salinity and the Colorado River. To provide a mechanism for interstate cooperation on the salinity question, the seven Colorado River Basin states established the Colorado River Basin Salinity Control Forum on November 9, 1973.

Three separate regions of the Federal EPA administer the Colorado River Basin: Region VI with headquarters in Dallas, Texas; Region VIII with headquarters in Denver, Colorado; and Region IX with headquarters in San Francisco, California.

By 1974, the seven Colorado River Basin states had been confronted with three different sets of salinity control regulations for the Colorado River. Two of the proposed sets of regulations were originated by EPA Region IX and the third by EPA Region VIII. None of the three proposed salinity regulations were acceptable to the Forum. Consequently, the Forum requested EPA to draft a single regulation for discussion.

EPA complied, and the proposed salinity regulations were discussed at a meeting of the Forum in Denver, Colorado, on January 29, 1974. This meeting was attended by representatives of EPA Regions VIII and IX. EPA Region VIII appeared

willing to negotiate a resolution acceptable to the seven states. EPA Region IX, however, was firm in the conviction that separate standards should be set for Las Vegas Wash, Clark County, Nevada.

A second meeting of the Forum met in Denver, Colorado, on March 22, 1974. The purpose of this meeting was to discuss a revised draft of the proposed salinity regulations. EPA was represented by staff from Region VIII, Region IX, and Washington, D. C. At this meeting, EPA representatives were asked if they would issue numeric salinity criteria prior to adoption of a plan of implementation for salinity control by the seven states. The EPA Region VIII and Washington representatives indicated they would not. The representative from EPA Region IX said that numeric criteria might be issued prior to adoption of a plan. Not only was this a further indication of an attempt to consider Las Vegas Wash separate from the rest of the Basin, but it also demonstrated the lack of coordination among the various EPA regional offices and the national office.

Following the March 22, 1974, meeting, EPA Region IX announced that salinity standards would not be promulgated individually for Las Vegas Wash because satisfactory progress is being made regarding a plan for salinity control. A copy of the Regional Director's letter to the Governor of Nevada is attached as Appendix 5 to this report.

A third meeting in Phoenix, Arizona, on April 6, 1974, resulted in a compromise proposal for a salinity regulation. An implementation schedule is currently being developed. To date, the much-discussed regulation has not been published in the Federal Register, a Federal procedure preceding implementation of an administrative regulation.

The significance of the joint seven Colorado River Basin states effort is that EPA Region IX has apparently abandoned its earlier unilateral attempt to impose salinity regulations on Nevada and now appears to be convinced that the Colorado River Basin must be considered as a river system. This conviction is in harmony with the prevailing belief among the states that the Colorado River should be regulated as a system and not regulated in seven different segments by various elements of the EPA structure.

Although the experience related above is of primary importance to this agency, there is another significant difference in the regulations. Under the original EPA proposal, the States were to be responsible for salinity control regardless of who pays the cost, currently estimated at \$246 million. Under the agreed-upon proposal, the Federal government will assume some of the burden of the costs for constructing the necessary facilities. One of these proposed facilities would prevent the highly saline groundwaters, which surface in Las Vegas Wash, from entering the Colorado River. The estimated cost of this project is \$49 million.

C. SALINITY CONTROL LEGISLATION

Separate legislative proposals for salinity control have been introduced in both houses of Congress by the basin states and the Administration. The bills sponsored by the states call for more Federal participation than do the Administration bills. On June 11, 1974, by an overwhelming majority of 403 to 8, the states-sponsored bill passed in the House of Representatives. The following day, June 12, the Senate passed the states bill. Although the President has not yet signed the bill, certain provisions of the bill dealing with the United States' obligations under the Mexican Water Treaty make a veto appear unlikely.

This legislation is a further indication of the validity of a united Basin/state approach to solving Colorado River problems.

Passage of this legislation illustrates what can be done if agencies at various levels of government cooperate in the achievement of common goals. Splendid cooperation has been achieved among the Nevada Bureau of Environmental Health, the Colorado River Commission of Nevada, the Nevada State Engineer, and Clark County on the salinity control problem. This harmonic relationship sets an optimistic precedent for cooperative problem solving in the management of our natural resources.

X. WATER QUALITY MANAGEMENT PLAN

Prior to passage of Public Law 92-500 in October of 1972, the Federal government required a Water Quality

Management Plan (WQMP) as a prerequisite to the approval of applications for Federal grants for construction of sewage treatment facilities.

As a result, the LVVWD and Clark County jointly contracted with NECON to prepare a County-wide WQMP. This arrangement was necessary because the Clark County Regional Planning Council (CCRPC), which authorized the preparation of the WQMP, did not enjoy the staff expertise to develop the plan nor the capability to finance the plan.

A draft WQMP for Clark County was submitted to the CCRPC, EPA, Department of Housing and Urban Development, and Nevada Bureau of Environmental Health in March 1973. Review of the draft by the CCRPC Technical Committee was completed in May 1973. Following some revision by NECON, several chapters of the plan were re-submitted in June of that year.

Public Law 92-500 does not require a WQMP; therefore, the WQMP Steering Committee of CCRPC has decided that all work on the plan should be stopped. NECON has been paid for its effort and instructed not to proceed further.

All WQMP data and materials are now the property of Clark County. Much of the information gathered will be useful to the Clark County Wastewater Management Agency and other agencies for future water management planning purposes.

XI. FUNDING

When Clark County officially assumed responsibility for this complex water pollution problem on July 1, 1973, over three quarters of a million dollars in Clark County funds had already been expended on the effort to achieve a solution. Clark County money had been provided in January 1973 because the LVVWD had been unable to obtain Federal funding and needed additional money to continue its efforts. Consequently, the County made \$970,000 in emergency-loan funds available to the LVVWD. \$770,000 of this money was used to support LVVWD engineering contracts during the first six months of 1973. Most of the remaining \$200,000 was committed when all LVVWD pollution abatement project contracts were transferred to the County on July 1, 1973.

Clark County has experienced many of the same funding uncertainties that presented serious problems for the

LVVWD. These uncertainties relate primarily to time and fiscal restraints imposed by NRS Chapter 790 and EPA. Due to the complexity of these restraints, Burrows, Smith & Company, municipal financial consultants, has been retained by the Board of County Commissioners to provide assistance in obtaining adequate funding in an efficient and timely manner.

When the Board of County Commissioners approved the proposed six-point alternative recommendation on August 6, 1973, funding was needed immediately. Federal grants were at least a year away with full Federal and local funding not expected until sometime in 1975. As a result, the Board of County Commissioners decided to provide interim funding in the amount of a \$161,000 inter-fund loan in November 1973.

The Board of County Commissioners recognized that additional interim funding in the amount of \$2.5 million would be required to support the pollution abatement project. The Commission was hesitant to obligate additional County funds without some assurance these funds would be reimbursable in the future. A legal opinion was, therefore, requested from Dawson, Nagel, Sherman and Howard, bond counselors of Denver, Colorado.

The resulting opinion concluded that the County could be reimbursed for these advances with bond proceeds when the project is fully funded. A resolution was, therefore, adopted unanimously by the Board of County Commissioners on January 21, 1974, to obtain a \$2.5 million short-term loan. Approvals from the Nevada Legislative Commission, the Nevada Tax Commission, and the Governor were obtained and, by May 1974, Clark County had the legal authority to borrow \$2.5 million. This authority has not been implemented to date for two reasons:

- A. First, Burrows, Smith and Company advised the County that interest rates are at an all-time high. It was their recommendation that Clark County defer borrowing the \$2.5 million until the interest rates stabilize or until the funds are absolutely required. In addition, Burrows, Smith and Company feels the County can obtain the loan in increments through negotiation with local banks, thereby obtaining significantly lower interest rates and broadening the loan market.
- B. Secondly, Clark County anticipated receiving approximately \$1.3 million in Federal grant funds by June 1974. The Nevada Bureau of Environmental Health responded to a Wastewater Management

Agency inquiry early this year by indicating that Nevada had 1974 Federal grant funds available to reimburse the community for monies already expended on the project. Upon receipt of this information, the Board of County Commissioners authorized the Wastewater Management Agency to submit a Step 1, facilities planning, grant application in February 1974. This application received State priority certification and was expeditiously forwarded to EPA Region IX.

On June 6, 1974, Clark County received a grant offer for \$1,287,885 from EPA Region IX. This offer, attached as Appendix 6 to this report, represents an extremely significant funding milestone for the pollution abatement project. As shown in the Facilities Planning Budget, attached as Appendix 7 to this report, Clark County and the State of Nevada have expended over \$2 million during the past three years in a positive effort to develop a solution to this increasingly serious water pollution problem. Although this effort has been in response to an EPA Region IX enforcement action, it has not been until now supported by Federal funds.

The granting of these funds does not obligate EPA to future funding, but will provide the community with funds that are urgently needed to effectively implement a solution to the Lake Mead problem.

If this money is utilized for the continued support of the project, it will have the effect of further deferring the need to secure a \$2.5 million short-term loan, thereby providing the Clark County taxpayer some relief.

Clark County has also received a check for \$7,288 from EPA Region IX as the closing amount for its original 3(c) Federal grant application. Clark County began work on this application in 1968 when the Inter-Agency Water Pollution Control Task Force first addressed itself to the pollution of Lake Mead. A grant for \$79,714 was awarded to Clark County in 1969 to provide assistance in the development of a comprehensive water pollution control and abatement plan for the Las Vegas Wash Drainage Basin. The Boyle Phase I and Phase II reports were generated in part as a result of these funds. The Boyle reports represent the springboard for much of the work that followed.

On October 3, 1973, EPA Region IX requested, as a grant-closing requirement, a manpower assessment of the personnel needed to operate the facilities outlined in the LVVWD's 1972 Project Report. Wastewater

Management Agency Staff prepared the assessment and it was submitted to EPA Region IX in November 1973. The assessment was approved as the final requirement for grant closure, and EPA Region IX forwarded the final grant check to Clark County in April 1974.

Nevada's allocation of Fiscal Year 1975 sewage treatment grant funds, according to a new allocation formula, is expected to be approximately \$18 million. The Nevada Bureau of Environmental Health has officially released a priority list for these Fiscal Year 1975 funds which earmarks \$2,857,500 for detailed design of pollution abatement project facilities and \$7 million for the construction of the AWT plant.

The Fiscal Year 1975 funds allocated for facilities design represent full 75 percent Federal funding based on total anticipated design costs of \$3.8 million. The \$7 million, however, represents only a portion of the anticipated 75 percent Federal contribution for facilities construction.

Unfortunately, the project may possibly lose the \$7 million for the construction phase due to EPA Region IX's lengthy evaluation/review procedures. EPA Region IX has indicated it may require six months to prepare and approve an EIS. Consequently, design engineering must be delayed until January 1975. When these design plans are completed in January 1976, EPA Region IX will require another six-month period for review. As a result, construction may be unnecessarily delayed until July 1976, at which time Fiscal Year 1975 funds will no longer be available.

There is presently no indication of what can be expected in the way of Federal funds after Fiscal Year 1975. Only half of the funds appropriated by the Congress for sewage treatment projects has been released by the Administration in spite of the fact that Fiscal Year 1975 is the final year designated for appropriations in the Water Pollution Control Act Amendments of 1972. It is hoped that the remaining half of the Federal sewage treatment funds will be released or that additional appropriations will be authorized.

The total cost of the first stage of the project is estimated at \$66.13 million.

Details on this estimate can be found in Chapter IX of the Facilities Plan, Annex A to this report. The Federal share of this amount is over \$45 million.

Part of this will be requested late in 1974 through a Step 2, facilities design, grant application. The remaining 75 percent Federal funding for facilities construction will be sought late in 1975.

The local share of the project will amount to about \$21 million. Authorization to issue State securities for this amount is expected early in 1975 after assurance is obtained from EPA Region IX that it will provide full Federal funding.

The anticipated project expenditures for the next 18-month period are as shown in the Estimated Cash Flow Sheet, attached as Appendix 8 to this report. These expenditures together with administrative expenses will comprise the major portion of the Step 2 Federal grant request.

XII. TENTATIVE ACTION TIMETABLE

NRS Chapter 790 requires that, if an alternative plan for abating pollution in Las Vegas Wash and Bay of Lake Mead is recommended, it must be developed and submitted to the Governor and the Legislative Commission by July 1, 1974.

Throughout the planning phase, it has been our intention to recommend a plan that would include an operational AWT plant by July 1, 1977. Now, unfortunately, it appears that the earliest we can expect to have the proposed AWT plant on line is July 1, 1978. If the July 1, 1978, date is to be met, design of the facility must begin during July 1974 with construction starting shortly after the design documents, plans, and specifications are completed in 1975.

EPA Region IX has informed us that it is its intention to delay the project six months to review the Facilities Plan (Annex A) and the Addendum to the Environmental Assessment (Annex B). An additional six months may also be required by EPA Region IX to review the plans and specifications. If both EPA Region IX review periods extend the full six months as anticipated, the continuance of the project will be precluded for a period of one year. Therefore, the AWT plant cannot be operational until December 31, 1978.

The degradation of the water quality of Lake Mead will continue because pollution controls cannot be achieved until EPA Region IX's reviews have been completed.

It is of particular interest to note that, although these documents were officially transmitted to EPA on July 1, 1974, both NECON and VTN/Jones & Stokes have been in frequent contact with EPA Region IX staff in an effort to produce documents satisfactory to that agency. Drafts of the Facilities Plan and the Addendum to the Environmental Assessment were transmitted in April of this year for EPA Region IX comments. It is also our intention to maintain the same liaison between our consultants and EPA Region IX throughout the design phase. In view of this effort, it is difficult to understand why EPA Region IX requires six months to review documents that have been staffed with them during the developmental stages.

Chairman Wiesner expressed Clark County's dissatisfaction with this unnecessarily long review time to the Director of EPA Region IX in his letter of May 3, 1974. A copy of this correspondence is attached as Appendix 9 to this report. To date, EPA Region IX has not responded to the letter.

Ironically, it now appears that the Federal regulatory agency, EPA Region IX, which is causing the pollution abatement facilities to be built, may cause a delay in the construction schedule and the unnecessarily continued degradation of Lake Mead.

Although we are aware of the possibility of the EPA Region IX-imposed delay, this report's timetable schedules three months for each of the two review periods. This represents a realistic review period under the circumstances. This timetable is attached as Figure 2 to this report.

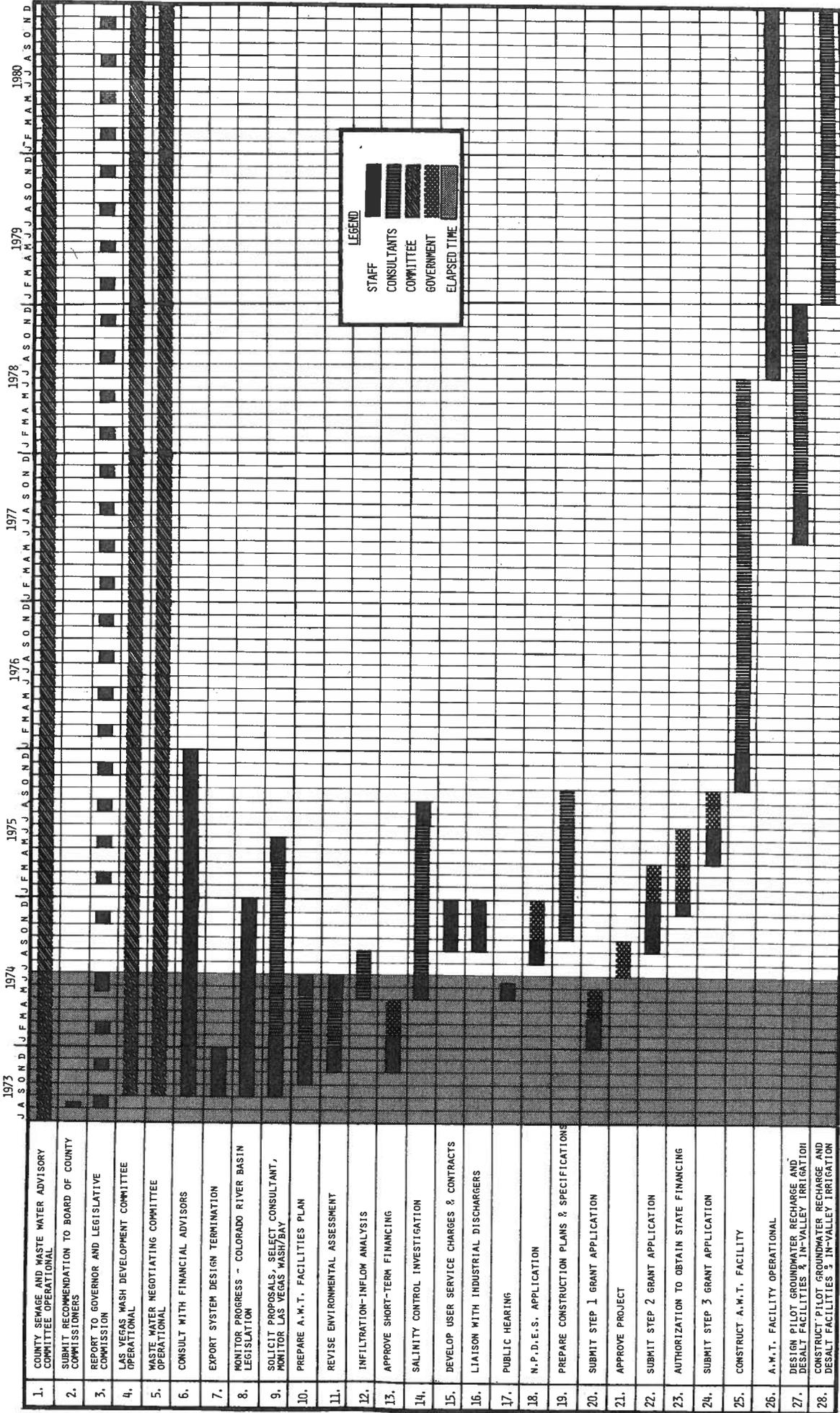
FIGURE 1

LAS VEGAS BAY/LAKE MEAD
MONITORING PROGRAM

FIGURE 2

TENTATIVE ACTION TIMETABLE
LAS VEGAS WASH/BAY POLLUTION ABATEMENT PROJECT

TENTATIVE ACTION TIMETABLE
LAS VEGAS WASH/BAY POLLUTION ABATEMENT PROJECT



APPENDIX 1

**COUNTY SEWAGE AND WASTE WATER ADVISORY COMMITTEE
MEMBERSHIP ROSTER**

COUNTY SEWAGE AND WASTE WATER ADVISORY COMMITTEE

<u>ENTITY</u>	<u>PRIMARY</u>	<u>ALTERNATE</u>
City of Boulder City	R. E. Eads	Don Mitchell
City of Henderson	R. T. Whitney	H. J. Greenville W. F. Stolk
City of Las Vegas	Lou Anton R. P. Sauer V. B. Uehling	Geoff Billingsley Bill Purvis Steve Ramsey
City of North Las Vegas	J. H. Mitchell D. R. Sudweeks	L. S. McCutchen W. B. Mumpower
Clark County	David Finne L. R. Hampton	C. R. Mazowiecki George Monahan
Clark County Sanitation District	J. H. Parrott	George Monahan
Las Vegas Valley Water District	T. R. Rice	W. H. Blackmer

APPENDIX 2

LAS VEGAS WASH DEVELOPMENT COMMITTEE
MEMBERSHIP ROSTER

LAS VEGAS WASH DEVELOPMENT COMMITTEE

Patricia Foster Chairman	League of Women Voters
Elmer Anderson Vice Chairman	Clark County Parks and Recreation
Glade Koch Secretary	Lahontan Audubon Society
Thalia Dondero	Nevada State Parks Commission
David Finne	Clark County Wastewater Management Agency
Tom Harper	U. S. Fish and Wildlife Service
Mary Kozlowski	Colorado River Commission
Marianne Slagle	Sierra Club, Las Vegas Group
Tom Steele	City of Henderson
Al Stumpf	City of Boulder City
Glen Taylor	Basic Management, Inc.
Barbara Tyson	North Las Vegas Parks and Recreation

Wastewater Management Agency Staff Advisor:

Charles R. Mazowiecki

APPENDIX 3

**REPORT TO THE BOARD OF COUNTY COMMISSIONERS
CLARK COUNTY, NEVADA
BY THE
LAS VEGAS WASH DEVELOPMENT COMMITTEE
RECOMMENDATIONS**

APRIL 5, 1974

REPORT TO THE BOARD OF COUNTY COMMISSIONERS
CLARK COUNTY, NEVADA

BY THE
LAS VEGAS WASH DEVELOPMENT COMMITTEE

RECOMMENDATIONS

- * 1. The Las Vegas Wash Development Committee recommends this report be forwarded to the proper governmental agencies with the request that they review it and initiate actions to implement the proposed program.
- 2. We recommend the water release of 19 million gallons per day, presently believed required in summer months, and 3 million gallons per day, presently believed required in winter months, to maintain the ecological system of the Wash. This is an annual average of 10 million gallons per day. However, since the exact required flow is unknown and the above amounts are only best estimates at this time, we believe Recommendation No. 3 is very pertinent.
- 3. We recommend that the Wash be monitored for the ecological effect of management procedures for a number of years until a stable effect of management is reached. Scientists and consultants cannot tell us the exact effect their best estimates of water requirement calculations will produce on wildlife habitat in the Wash. If effects are undesirable, the monitoring program may provide clues to the corrective action that can be taken. A monitoring program would also provide accurate flow needed to maintain the desired habitat.
- * 4. The Committee strongly recommends that the Board of County Commissioners request the assistance of the Las Vegas Valley Conservation District Board of Supervisors in gathering resource data in a soil survey of the Las Vegas Wash area outlined in this report. We suggest the survey include the following:
 - A. Water management interpretation.
 - B. General soils map.
 - C. Some engineering interpretation.
 - D. Urban use interpretation.
 - E. Selective recreation and wildlife interpretation.

We feel this recommendation is mandatory for land-use planning in the area. It is a vital first step in development of a wildlife-oriented recreation area. It will also give a more accurate basis for land values. Taking into account volunteers to be trained by the Soil Conservation Service at no cost, the computer fee (under \$500) is the only cost of such a soil survey.

- * 5. We recommend the County undertake an archaeological inventory in the Wash area. Such an inventory would record any archaeological sites and historical data. If significant sights are discovered by an archaeological survey crew, they would recommend preservation, protection, or salvage. Dr. Richard Brooks, Director of Archaeological Survey, University of Nevada, Las Vegas, estimates that such an archaeological and historical inventory would cost from \$1000 to \$1500. It is possible that volunteers could assist in this survey also. Dr. Brooks is willing to donate some of his time to this project.
- 6. We recommend that a first priority of the managing agency of the Las Vegas Wash Wildlife Education/Recreation Area be the establishment of a use ceiling within various areas. The unique benefits of the Wash to the community depend upon its natural, wild character. This character is easily eroded by man's use.
- * 7. We recommend that an advisory committee such as the Las Vegas Wash Development Committee continue to function. Such a committee could perform the following functions:
 - A. Investigate and recommend funding possibilities from private foundations and national societies.
 - B. Coordinate development efforts of volunteer associations, other participating agencies, and the managing agency.
 - C. Preserve the intent of this proposal - the preservation of the natural character of Las Vegas Wash as a community educational/recreational resource.

Having been referred to REPORT, COLORADO RIVER WATER QUALITY IMPROVEMENT PROGRAM - STATUS REPORT, JANUARY, 1974, U. S. DEPARTMENT OF INTERIOR, BUREAU OF RECLAMATION, we believe that at this time accomodation of a salinity control project in the Wash area is compatible with these recommendations.

* Implementation authorized by the Board of County Commissioners.

APPENDIX 4

**CORRESPONDENCE BETWEEN CLARK COUNTY AND
THE ENVIRONMENTAL PROTECTION AGENCY REGION IX
REGARDING THE AREAWIDE SALINITY CONTROL INVESTIGATION**



*Wastewater
Management
Agency*

CLARK COUNTY COURTHOUSE
200 EAST CARSON AVENUE
LAS VEGAS, NEVADA 89101

April 16, 1974

DAVID B. HENRY
COUNTY ADMINISTRATOR

JAMES H. PARROTT
PROJECT GENERAL MANAGER

DAVID FINNE
PROJECT DIRECTOR

PHONE: 388-4011

Mr. Paul De Falco
Regional Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Dear Mr. De Falco:

Section 21C of the Clark County Sanitation District's and the City of Las Vegas's National Pollutant Discharge Elimination System permits requires the identification of sources of salinity in the sewerage systems and the identification of methods for reducing this salinity.

It is currently the intention of Clark County to seek the cooperation of the Cities of Las Vegas, North Las Vegas and Henderson in support of a regional salinity reduction investigation.

It is our understanding that an areawide investigation is eligible for a 75% Federal grant through the wastewater treatment works construction grant program. In addition, we understand that EPA Region IX would be receptive to amending Clark County's current Step 1 grant application for the Las Vegas Wash/Bay Pollution Abatement Project to include the cost of this areawide salinity reduction investigation.

In order to implement a regional approach to the salinity investigation, authorization to proceed will be requested from the Clark County Board of County Commissioners on April 22, 1974.

Following approval by the Clark County Board of County Commissioners and the governing bodies of the three Cities, the County Sewage and Wastewater Advisory Committee (SWAC) will be utilized as a vehicle to coordinate the cooperative effort. SWAC will also assume

Paul De Falco
Environmental Protection Agency

-2-

April 16, 1974

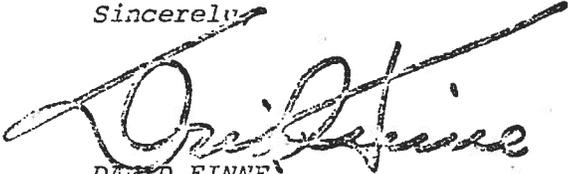
responsibility for soliciting engineering proposals and selecting a consultant to perform the areawide salinity investigation.

We do not anticipate submitting a request to EPA IX for a Step 1 grant amendment before late May 1974.

Mr. George Teramoto has advised us that the intention to amend our grant application will not delay the review currently in progress.

Please advise us if the understandings discussed in this correspondence are correct. Your prompt cooperation is appreciated.

Sincerely,

A handwritten signature in cursive script, appearing to read "David Finne". The signature is written in dark ink and is positioned above the typed name.

DAVID FINNE
Project Director

DF/max



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
100 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

RECEIVED

A.M. P.M.

MAY 6 1974

Mr. David Finne
Project Director
Wastewater Management Agency
Clark County Courthouse
200 East Carson Avenue
Las Vegas Nv 89101

WASTEWATER MANAGEMENT
AGENCY

MAY 3 1974

Dear Mr. Finne:

This is in response to your letter of April 16, 1974 concerning the salinity requirements as imposed upon Clark County Sanitation District and the City of Las Vegas by their National Pollutant Discharge Elimination System permits and the Step I grant application from Clark County Sanitation District.

We will continue to process the Step I grant application by Clark County Sanitation District.

In order for the salinity studies to be acceptable for Federal grant assistance as part of facilities planning, it must be directly related to the pollution abatement project for Las Vegas. The studies should encompass the entire basin and include the following as minimum:

- A. Identify and quantify all addition of dissolved salts into the sewerage systems.
- B. Recommend methods for reducing and where practicable eliminating the salts.
- C. Recommend a control program including ordinances where practicable.
- D. Determine the salinity values of the incoming secondary effluent from Clark County Sanitation District and the City of Las Vegas' treatment plant to the advanced wastewater treatment plant if all the recommended corrections are instituted.

As soon as an estimate on the cost of the study is finalized, a request for an increase in the Step I grant should be

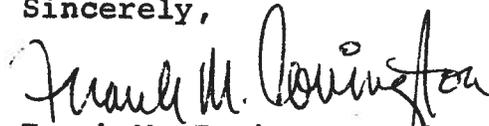
-2-

made to this agency. We will then process this increase as an addendum to the Step I grant.

Although the county Sewage and Wastewater Advisory Committee (SWAC) is utilized to coordinate the efforts of the study, this agency will correspond directly with Clark County Sanitation District since they are the applicant for the Step I grant.

If you have any further questions, please contact George Teramoto at (415)556-7283, a member of my staff.

Sincerely,

A handwritten signature in cursive script that reads "Frank M. Covington". The signature is written in dark ink and is positioned above the typed name.

Frank M. Covington, Director
Air & Water Programs Division

cc: Nevada Bureau of Environmental Health

APPENDIX 5

**CORRESPONDENCE FROM ENVIRONMENTAL PROTECTION
AGENCY REGION IX DIRECTOR REGARDING
SALINITY STANDARD FOR LAS VEGAS WASH**

Environmental Protection Agency

COMMUNICATIONS SECTION
San Francisco, California 94111

MAR 28 1974

Honorable Mike O'Callaghan
Governor of Nevada
State Capitol
Carson City NV 89701

Dear Governor O'Callaghan:

The enclosed memo reflects my position concerning future action to promulgate water quality standards revisions for your State. As long as fruitful negotiations continue with the Colorado River Basin Salinity Forum to promulgate total dissolved solids (TDS) standards for the entire Colorado River Basin in accordance with the proposed schedule, there should be no need to promulgate TDS standards individually for Las Vegas Wash.

I hope this letter will help alleviate the misunderstandings that have been fostered recently concerning proposed water quality standards revisions.

Sincerely,

Original signed by
Paul De Falco, Jr.

Paul De Falco, Jr.
Regional Administrator

Enclosure

cc: Norman Glaser, Chairman
Nevada Environmental Commission
Roger Trounaday, Director
Nevada Dept. of Health

Reading File
Suspense File ✓
PWoods:led 3/28/74

Woods Howekamp Covington

RECEIVED

APR 2 1974

DIRECTOR'S OFFICE
HWR

Environmental Protection Agency,
100 California Street
San Francisco, California 94111

87

Deputy Assistant Administrator for Water
Planning & Standards, EPA, Wash., D.C.
(AW-451)
Regional Administrator
Region IX

MAR 28 1974

Promulgation of Nevada Water Quality Standards

Reference is made to 1) my memorandum of December 3, 1973 to the Assistant Administrator for Air & Water Programs concerning promulgation of Nevada Water Quality Standards, and 2) subsequent telephone contacts with your staff.

It is requested that you continue to hold this proposed promulgation action in abeyance pending the results of the Nevada Environmental Commission meeting on April 9, 1974. The Commission is scheduled to take action on all or part of nine of the ten items included in the proposed promulgation at that time.

The tenth item, concerning total dissolved solids in Las Vegas Wash, is included in the ongoing discussions with the Colorado River Basin Salinity Control Forum. I would like to hold further action on this issue in abeyance until conclusion of negotiations with the Forum concerning promulgation of salinity requirements for the entire Basin.

Until additional salinity standards in the Colorado River Basin are established, NPDES permits will continue to be issued to dischargers within the Basin, as well as other basins having salinity problems, with salinity control provisions based on existing standards including antidegradation and narrative standards and other applicable standards. We expect that other state and regional NPDES programs covering portions of the Colorado River Basin will be consistent with this approach.

Original signed by:
Paul De Falco, Jr.

Reading File
Suspense File ✓
PWoods:led 3/28/74

Paul De Falco, Jr.

cc: John Quarles
Alan G. Kirk
John A. Green, Reg. VIII
Arthur W. Eush, Reg. VI

Woods Howekamp Covington De Falco

APPENDIX 6

**GRANT OFFER FROM ENVIRONMENTAL PROTECTION
AGENCY REGION IX**



H(2)7 6/6/74
y

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
100 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

County of Clark
Clark County Courthouse
Attn: Tom Wiesner, Chairman
Board of County Commissioners
200 East Carson Avenue
Las Vegas NV 89101

MAY 24 1974

Re: C 320105 01 0
Las Vegas Wash/Bay Pollution
Abatement Project

Gentlemen:

This Agency is pleased to offer the County of Clark a grant of \$1,287,885 for the preparation of your facilities plan for the Las Vegas Wash/Bay Pollution Project. This grant offer is based upon your application, as certified to this office by the Nevada Bureau of Environmental Health. The attached will explain the revised eligible costs as determined from our review of your application.

If you wish to accept this grant offer, the original and one copy of the enclosed Grant Agreement form should be signed and returned to this office as soon as possible. One copy should be sent directly to the Nevada Bureau of Environmental Health.

Upon acceptance of this Grant Agreement, payment can be made on all costs incurred up to ninety percent (90%) of the grant amount.

Sincerely,

Paul De Falco, Jr.
Paul De Falco, Jr.
Regional Administrator
Acting

Enclosures
Grant Agreement Forms

cc: Nevada Bureau of Environmental Health

APPENDIX 7

**CLARK COUNTY WASTEWATER MANAGEMENT AGENCY
LAS VEGAS WASH/BAY POLLUTION ABATEMENT PROJECT
FACILITIES PLANNING BUDGET
JUNE 30, 1974**

CLARK COUNTY WASTEWATER MANAGEMENT AGENCY
 LAS VEGAS WASH/BAY POLLUTION ABATEMENT PROJECT
 FACILITIES PLANNING BUDGET
 JUNE 30, 1974

	LVVWD		Clark County		Total
	4/28/71 - 6/30/73	4/25/72 - 12/31/73	Clark County 1/1/74 - 6/30/74	Clark County 1/1/74 - 6/30/74	
ADMINISTRATIVE					
Personnel	\$ 123,372.10	\$ 39,344.98	\$ 40,366.00	\$ 203,083.08	
Scientific Evaluation Committee	38,452.83	-	-	38,452.83	
Legal and Miscellaneous	27,509.73	-	-	27,509.73	
Audit	-	4,500.00	-	4,500.00	
Indirect	8,592.00	4,454.62	4,500.00	17,546.62	
STUDIES AND INVESTIGATIONS					
Water and Wastewater Budget Study (Boyle)	9,556.98	-	-	9,556.98	
Phase III (Boyle)	57,685.72	-	-	57,685.72	
Reconnaissance Analysis on Groundwater (DRI)	34,880.68	-	-	34,880.68	
Biota Study and Monitoring of Las Vegas Bay (UNLV)	38,572.30	-	42,000.00	80,572.30	
Ecosystems of Las Vegas Wash (UNLV)	23,997.00	-	-	23,997.00	
Water Quality Management Plan (NECON)	59,850.00	25,650.00	9,500.00	95,000.00	
Dry Lake Soils Investigation (Converse-Davis)	17,278.53	-	-	17,278.53	
Environmental Assessment (VTN/Jones & Stokes)	90,562.21	-	50,000.00	140,562.21	
Surveys and Photogrammetry (NECON)	213,000.00	-	-	213,000.00	
Soils Investigation (NECON)	105,000.00	-	-	105,000.00	
Hydrologic Investigation (NECON)	75,000.00	-	-	75,000.00	
Interim Consultation Services (NECON)	-	60,880.30	-	60,880.30	
ENGINEERING					
Project Report and Design Appendix (NECON)	449,810.56	-	100,000.00	549,810.56	
Export System Design (NECON)	506,036.88	56,226.32	-	562,263.20	
TOTAL	\$1,879,157.52	\$191,056.22	\$246,366.00	\$2,316,579.74	

APPENDIX 8

CLARK COUNTY WASTEWATER MANAGEMENT AGENCY
LAS VEGAS WASH/BAY POLLUTION ABATEMENT PROJECT
ESTIMATED CASH FLOW
JULY 1974 - DECEMBER 1975

CLARK COUNTY WASTEWATER MANAGEMENT AGENCY
 LAS VEGAS WASH/BAY POLLUTION ABATEMENT PROJECT
 ESTIMATED CASH FLOW
 JULY 1974 - DECEMBER 1975

	NECON - Design Eng.	UNLV - Wash Monitoring Program	Areawide Salinity Control Invest.	Sewage Treatment Needs Survey	Contingency	Total
July 1974	\$ 4,000	\$21,000	-	-	\$ 60,000	\$ 25,000
August 1974	4,000	-	-	-	-	64,000
September 1974	4,000	-	\$ 15,000	\$10,000	-	29,000
October 1974	180,000	21,000	25,000	15,000	-	241,000
November 1974	210,000	-	25,000	15,000	60,000	310,000
December 1974	240,000	-	25,000	10,000	-	275,000
January 1975	270,000	21,000	25,000	-	-	316,000
February 1975	300,000	-	25,000	-	60,000	385,000
March 1975	330,000	-	10,000	-	-	340,000
April 1975	330,000	-	10,000	-	-	340,000
May 1975	300,000	-	10,000	-	60,000	370,000
June 1975	300,000	-	10,000	-	-	310,000
July 1975	240,000	-	10,000	-	-	250,000
August 1975	180,000	-	10,000	-	60,000	250,000
September 1975	120,000	-	-	-	-	120,000
October 1975	-	-	-	-	-	-
November 1975	-	-	-	-	60,000	60,000
December 1975	-	-	-	-	-	-
TOTAL	\$3,012,000	\$63,000	\$200,000	\$50,000	\$360,000	\$3,685,000

APPENDIX 9

CORRESPONDENCE TO THE ENVIRONMENTAL PROTECTION
AGENCY REGION IX DIRECTOR REGARDING
THE LONG PROJECT REVIEW TIME

Board of County Commissioners

CLARK COUNTY COURTHOUSE
LAS VEGAS, NEVADA

May 3, 1974

COMMISSIONERS

TOM WIESNER
CHAIRMAN

JACK R. PETITTI
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COUNTY ADMINISTRATOR
Phone: 386-4011

Mr. Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Dear Mr. De Falco:

Mr. George Teramoto of your staff has informed the Clark County Wastewater Management Agency that the implementation of the Las Vegas Wash-Lake Mead Pollution Abatement Project will be delayed from July 1, 1974, to January 1, 1975, as a result of Environmental Protection Agency Region IX's project review time requirements.

Clark County believes that this six-month delay is unnecessary and that review of the Project Facilities Plan and Environmental Assessment Addendum can, and should, be expedited.

The responsibility for the continued degradation of Lake Mead must be borne by your agency because Clark County is ready and willing to proceed.

The Wastewater Management Agency Staff is prepared to meet with EPA Region IX Staff and discuss the matter further if, in your judgment, additional dialogue can achieve positive results.

Sincerely,

/S/ Tom Wiesner

TOM WIESNER, Chairman
Board of County Commissioners

TW:DF:lj

APPENDIX 10

GLOSSARY

GLOSSARY

ADVANCED WASTEWATER TREATMENT (TERTIARY TREATMENT)

Wastewater treatment in addition to the secondary treatment stage that includes processes usually employing chemical reactions.

COOLING TOWER

A large structure used to remove excess heat from water used in the generation of electrical power.

EFFLUENT

Wastewater flowing out of a treatment plant.

ENVIRONMENTAL ASSESSMENT

A document prepared by a grant applicant which evaluates the impact a proposed project and its alternatives would have on the environment.

ENVIRONMENTAL IMPACT STATEMENT

A document prepared by the Environmental Protection Agency identifying and analyzing, in detail, the effect a proposed project will have on the quality of the environment; given minor modifications, a well-prepared Environmental Assessment can be substituted for this document.

GRANT APPLICATION

A formal written document submitted to a Federal agency requesting financial assistance for a local project.

GRANT FUNDS

Federal money allocated to states under a program to give financial assistance for the construction of wastewater treatment facilities.

GRANT OFFER

A formal proposal made by a Federal agency in response to a request for financial assistance, indicating the amount of money the agency will provide.

GREENBELT

An area devoted to landscaping or naturally occurring plant life; for example, highway medians, pocket parks, Las Vegas Wash Education/Recreation Area.

INFILTRATION/INFLOW

Non-sewage water which enters a sewer system.

MONITORING

The measurement of the amount of pollutants present in the environment.

NEVADA REVISED STATUTES CHAPTER 790 (SENATE BILL 288)

A law passed during the 1973 Session of the Nevada State Legislature as Senate Bill 288 which, in part, assigns Clark County the responsibility for the development and implementation of a solution to the water pollution problem in the Las Vegas Wash-Lake Mead area.

POLLUTION ABATEMENT

Improving the quality of the environment by restricting the amounts of substances released to the environment.

POTABLE WATER

Water suitable for both drinking and cooking purposes.

PRIMARY TREATMENT

The first stage in wastewater treatment in which substantial amounts of floating and settleable solids are mechanically removed.

PROJECT FACILITY PLANNING

The preliminary studies and engineering efforts that culminate in a method of solving a wastewater treatment problem and relate directly to the construction of wastewater treatment works.

RECLAIMED WASTEWATER

Water that, after its initial use, is used to satisfy another water demand; for example, cooling water, irrigation water.

SALINITY

The relative concentration of salts or dissolved minerals in a given water.

SECONDARY TREATMENT

Wastewater treatment by biological methods to remove pollutants remaining after primary treatment.

WASTEWATER

Water carrying various waste materials from homes, businesses, and industries.

WATER QUALITY MANAGEMENT PLAN

A document previously required by both the Environmental Protection Agency and the Department of Housing and Urban Development which describes the wastewater collection and treatment facilities for an area.

WATER QUALITY STANDARDS

A compilation of criteria for the chemical, physical and, sometimes, biological parameters for a given water.