



**Clark
County**

**Department of
Comprehensive Planning**

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**TESTIMONY OF
THE CLARK COUNTY NUCLEAR WASTE REPOSITORY PROGRAM
BEFORE THE
UNITED STATES
NUCLEAR WASTE TECHNICAL REVIEW BOARD
RENO, NEVADA
OCTOBER 15, 1990**

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My name is Jerry Duke. I am a Principal Planner for the Nuclear Waste Repository Program (NWRP) for Clark County, Nevada. On behalf of the NWRP, I would like to welcome you to Nevada and thank you for providing the opportunity to voice our concerns.

I am here today to hear a presentation by the United States Department of Energy (DOE) on its Socioeconomic Plan, provide comments to that plan and present you with some of Clark County's concerns on the potential socioeconomic impacts of siting a permanent repository at the proposed Yucca Mountain siting in Nye County, Nevada. I will also include a summary of the NWRP so that the panel can better understand the ongoing efforts in Clark County to identify potential repository impacts. I hope also to convey to the Board a description of Clark County's proposed Socioeconomic Program. I have, therefore, invited Mr. John Petterson of Impact Assessment Inc., Clark County's Socioeconomic consultant to briefly discuss Clark County's program.

BACKGROUND

In its attempt to adequately address the problem of permanent and safe storage for high-level nuclear waste, Congress enacted the Nuclear Waste Repository Act of 1982. In 1987, Congress enacted Public Law 100-203, the Nuclear Waste Policy Amendments Act. As you are aware, the Texas and

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Washington sites were eliminated from consideration, and the Department of Energy was authorized to only study the site in Nye County, Nevada, known as Yucca Mountain. Until 1987, Clark County was funded entirely by the State of Nevada's Yucca Mountain program. The amendments, however, provided an opportunity for affected local governments to independently assess impacts to their communities. Clark County requested and received affected status in April 1988, and along with Nye and Lincoln County, comprise the three affected governments. The County still coordinates its efforts with the State; to maximize the available funding, however, the three affected counties are concentrating efforts on local concerns, while the State is placing emphasis on regional issues.

Current Planning Environment

Before providing specific comments on the Department of Energy's plan and presentation of the Clark County Nuclear Waste Repository Program, I would like to provide you with a few brief economic, demographic and transportation facts that will help to demonstrate some of the unique characteristics and challenges facing Clark County, Nevada.

- The population in Clark County nearly doubled between 1980 - 1990.
- Four to six thousand people move into Clark County each month.
- Nevada is one of the fastest growing states in the Country, with most of the growth occurring in Clark County.
- Due mainly to rugged geographic features in southern Nevada, there is a limited highway network in Clark County.
- Eighteen million people visited Las Vegas in 1989 - a 5% increase from 1988 and a trend that has continued over the past decade. The visitor revenue contribution from 1989 was \$11.5 billion.
- Seven hundred eleven (711) conventions were hosted in Las Vegas in 1989. These conventions attracted over 1.5 million people - revenue exceeding \$1.1 billion.

These observations help to capture some of the elements which reflect the current setting in Clark County. Independent of the potential risks and concerns of siting the repository at Yucca Mountain, the County government is currently trying to resolve some very difficult growth related issues. The introduction of a repository further complicates planning matters and could possibly, depending on the severity of the impacts, detract from the County's current excellent quality of life. The following summarizes our concerns against the backdrop of the current economic and demographic changes in Clark County.

Clark County Repository concerns:

1. The Clark County service system which would include as examples, schools, fire protection, transportation networks, sanitation and water, is becoming stressed to the limits. The current growth dictates constant revision and reallocation of resources in order to keep pace with service demands. For example, it is estimated that needed transportation projects in Clark County now exceed 2 billion dollars. Although the number of support and construction personnel expected to move into the County would not, in and of itself, represent an overwhelming growth increase, it could have significant implications on an already deficient infrastructure and service delivery system. It could, in other words, require County government to provide services well in advance of current requirements. The numbers, therefore, may be disproportionate in their intended impacts.
2. The population growth in Clark County represents an ever increasing planning challenge and responsibility in order to enable government to maintain the high quality of life that citizens have become accustomed and to ensure public health and safety. As the absolute number of residents increase, the health and safety risks accompanying the siting, construction and operation of the proposed Yucca Mountain high-level waste repository increase proportionately.

3. Current Department of Transportation regulations route high-level nuclear waste shipments on I-15 and U.S. 95 which traverse the most densely populated area in Clark County (The Las Vegas Metropolitan area). Further, because we do not have a system of limited access highways bypassing the city's center, we are concerned about waste shipments and the potential risks to the public.
4. The mode of transportation of the high-level nuclear waste to the proposed site is currently unknown. The use of rail is an option which the Department of Energy is currently exploring. While shipment by rail could reduce the overall number of shipments, this also poses risks to the citizens of Clark County because the only southern mainline rail route goes through downtown Las Vegas. Since the existing alignment of mainline track servicing southern Nevada does not link with Yucca Mountain, several of the proposed spurs would also pass through Clark County. This raises another series of issues that would have to be addressed including emergency response, impact on the environment and a host of other potential elements.
5. The growth of development in Clark County has occurred in all sections of the Las Vegas valley. As population increases and transportation corridors become more constrained, more Clark County residents could be impacted by transport through the valley.
6. The Nevada Test Site (NTS) is located approximately 65 miles north of Las Vegas. The availability of amenities has resulted in approximately 90% NTS workers residing in Clark County. It is probable that Yucca Mountain employees would also largely choose to reside in the Las Vegas valley.
7. The average monthly non-resident population (1.5 million) in Clark County further complicates the provision of service and is a planning concern that used to be addressed in conjunction with long-range repository related issues.

8. Tourism accounts for a major percentage of Clark County's total business. The transport of nuclear waste through Las Vegas by DOT's so-called "preferred routing" scheme could negatively affect tourism. If visitors and convention planners choose other vacation destinations, the Clark County economy could suffer dramatically.

As these statements indicate, the potential repository-related effects to Clark County on the economic vitality, health, safety and quality of life for Clark County residents is currently unknown. Clark County is, therefore, committed to utilize every aspect of Public Law 100-203 of the Nuclear Waste Policy Amendments Act (1988) to ensure that a comprehensive and an appropriate impact assessment system is in place to identify, define and mitigate potential repository related impacts.

Our effort is divided, therefore, into two main components - input into the Department of Energy's repository planning process (this includes all components of the program) and development of a Nuclear Waste Repository Program that develops a system to address impact.

As such, we regard the Socioeconomic Plan as one of the most important components in the Department of Energy's mission to investigate Yucca Mountain as the nation's first high-level nuclear waste repository. This document should provide a framework for long-term monitoring of potential socioeconomic impacts in the State of Nevada, and affected local governments. The key to a successful plan, of course, is that a comprehensive baseline of information be available and a monitoring system be in place so that repository related impacts can be identified and quantified. We are hopeful that the Department of Energy will work with the affected local governments and the State of Nevada to achieve these objectives.

To date Clark County has provided detailed comments on the DOE's draft socioeconomic plan. We have submitted more detailed comments for your review. Today, I will reiterate these concerns in summary form. They are as follows:

CLARK COUNTY'S COMMENTS ON THE DOE'S DRAFT SOCIOECONOMIC PLAN

- THE CURRENT PLAN IS LACKING SPECIFIC DETAILS REGARDING THE PLAN OF ACTION.
- THE PLAN DOES NOT INCORPORATE A METHODOLOGY TO ESTABLISH OR REFLECT AN ACCURATE BASELINE.
- THE PLAN ASSUMES THAT IMPACTS WILL BE CONFINED TO AN ARBITRARILY DEFINED DISTANCE FROM THE YUCCA MOUNTAIN SITES.
- THE PLAN DOES NOT IDENTIFY A METHODOLOGY FOR ASSESSING ECONOMIC IMPACT ISSUES OTHER THAN TO COMMIT TO EVALUATE IT THROUGH THE STATE OF NEVADA'S PAST WORK ON PERCEIVED RISK. NOT CONSIDERING THE POTENTIAL IMPACT TO TOURISM OBVIOUSLY PRESENTS AN INCOMPLETE ANALYSIS OF POTENTIAL PROBLEMS.
- THE PLAN DOES NOT ESTABLISH A SYSTEM FOR DATA COLLECTION, MANAGEMENT, AND DISSEMINATION. OUR SPECIFIC CONCERN IS:
 - THAT DOE SHOULD RECOGNIZE THAT INFORMATION REGARDING IMPACTED COMMUNITIES WOULD BE COLLECTED MORE EFFICIENTLY BY LOCAL GOVERNMENTS.
- ALTHOUGH IT IDENTIFIES THE NEED FOR COOPERATION AND CONSULTATION, THE PLAN DOES NOT DEFINE HOW DATA COLLECTION AND OTHER EFFORTS WILL BE INTEGRATED INTO THE ONGOING SOCIOECONOMIC MONITORING PROCESS, ALTHOUGH IT IDENTIFIES THE NEED FOR COOPERATION AND CONSULTATION.
- THE DEVELOPMENT OF THE PLAN REQUIRES MORE RIGOROUS INTERACTION WITH THE STATE AND LOCAL COMMUNITIES.
- THIS PLAN RELIES TOO MUCH ON THE SECTION 175 REPORT WHICH IS INADEQUATE IN DEFINING THE POTENTIAL IMPACTS FROM THE PROGRAM.

THE CLARK COUNTY NUCLEAR WASTE REPOSITORY PROGRAM

Since the passage of the 1988 Nuclear Waste Policy Act Amendment, Clark County has initiated a process of identifying important issues and formalizing study objectives. Our program stresses the development of an accurate baseline as a reliable backdrop from which repository related impacts can be assessed. We feel that the Clark County program effectively fills the gaps left open by the Department of Energy's draft Socioeconomic Plan. However, we do not believe that this should exonerate the Department of Energy from considering and integrating Clark County's concerns into the Plan. The Clark County program consists of five main components:

- Socioeconomic Studies
- Transportation Studies
- Environmental Studies
- Technical Studies
- Fiscal Studies

Program oversight is provided through a steering committee which is comprised of the incorporated cities in Clark County, a member from the Regional Transportation Commission (RTC), the Moapa Paiutes, the University of Nevada at Las Vegas, and a citizen designee. A representative from the state of Nevada, Lincoln and Nye Counties are ex-officio members. This group assists in all phases of program development, including grant and study review, policy formulations, consultant selection and generally provides an advisory function.

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First to give you a perspective of participants in our program. Clark County has contracted with Impact Assessment Incorporated to undertake a multi-year socioeconomic work effort. This study, will provide a basis for all future efforts, will evaluate current conditions in the County and develop a representative socioeconomic system capable of accurate repository related impact assessment. The fiscal studies, also part of this program, will be conducted by Planning Information Corporation, a sub-consultant. John Petterson of Impact Assessment Inc. is here today to provide you with some details on the program, and will speak to you at the conclusion of my remarks.

Transportation Study Development is generated through the Nuclear Waste Repository Program, but studies are administered by the Regional Transportation Commission (RTC) - the designated planning organization in Clark County. RTC ensures that all nuclear waste studies are properly coordinated as per their legal mandate of a comprehensive, coordinated and continuing planning process.

The data base management system, a central component of the Nuclear Waste Repository Program for Clark County, is being developed by Environmental Systems Research Institute, Inc., in coordination with Impact Assessment Inc.

I hope my comments have provided a perspective of Clark County's Yucca Mountain Program and a feeling of the context of the area in which we are developing our program. Unless there are questions, I would like to introduce John Petterson to provide more detail on our program.

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PROGRAM OVERVIEW

Of the

Clark County

**Socioeconomic Impact Assessment of the Proposed
High-Level Nuclear Waste Repository at
Yucca Mountain, Nevada**

Prepared for the

**U.S. Nuclear Waste Review Board
Environment and Public Health Panel**

Prepared by

**IMPACT ASSESSMENT, INC.
2160 AVENIDA DE LA PLAYA, SUITE A
LA JOLLA, CALIFORNIA 92037**

October 16, 1990

FUNDAMENTAL THEMES

Credibility

Study integration

Products of immediate and enduring value

Measure consistent set of variables

**Address entire Clark County study program
(all tasks; all phases)**

Major simplification of complex concerns

Flexibility/adaptability

Inter-study integration/coordination

Monitoring program

Transfer

Not a "standard" socioeconomic impact assessment

Unprecedented duration

Radiological concerns

Irreversability

Political consequences

Non-standard economic context

Figure 1
COORDINATION PLAN

SOCIOECONOMIC IMPACT ASSESSMENT PROGRAM
TECHNICAL DIRECTION

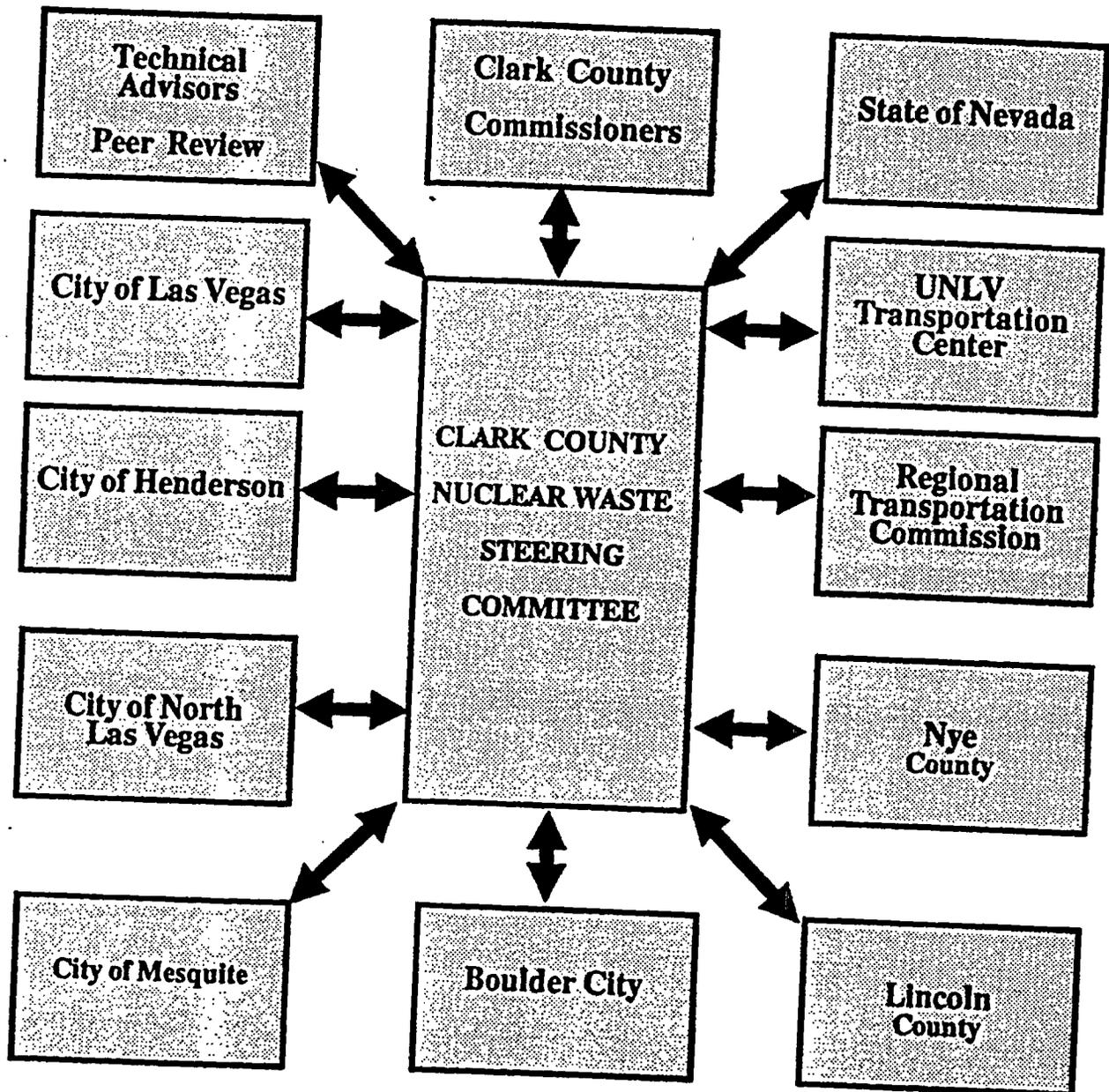


Figure 2

COORDINATION PLAN

SOCIOECONOMIC IMPACT ASSESSMENT PROGRAM

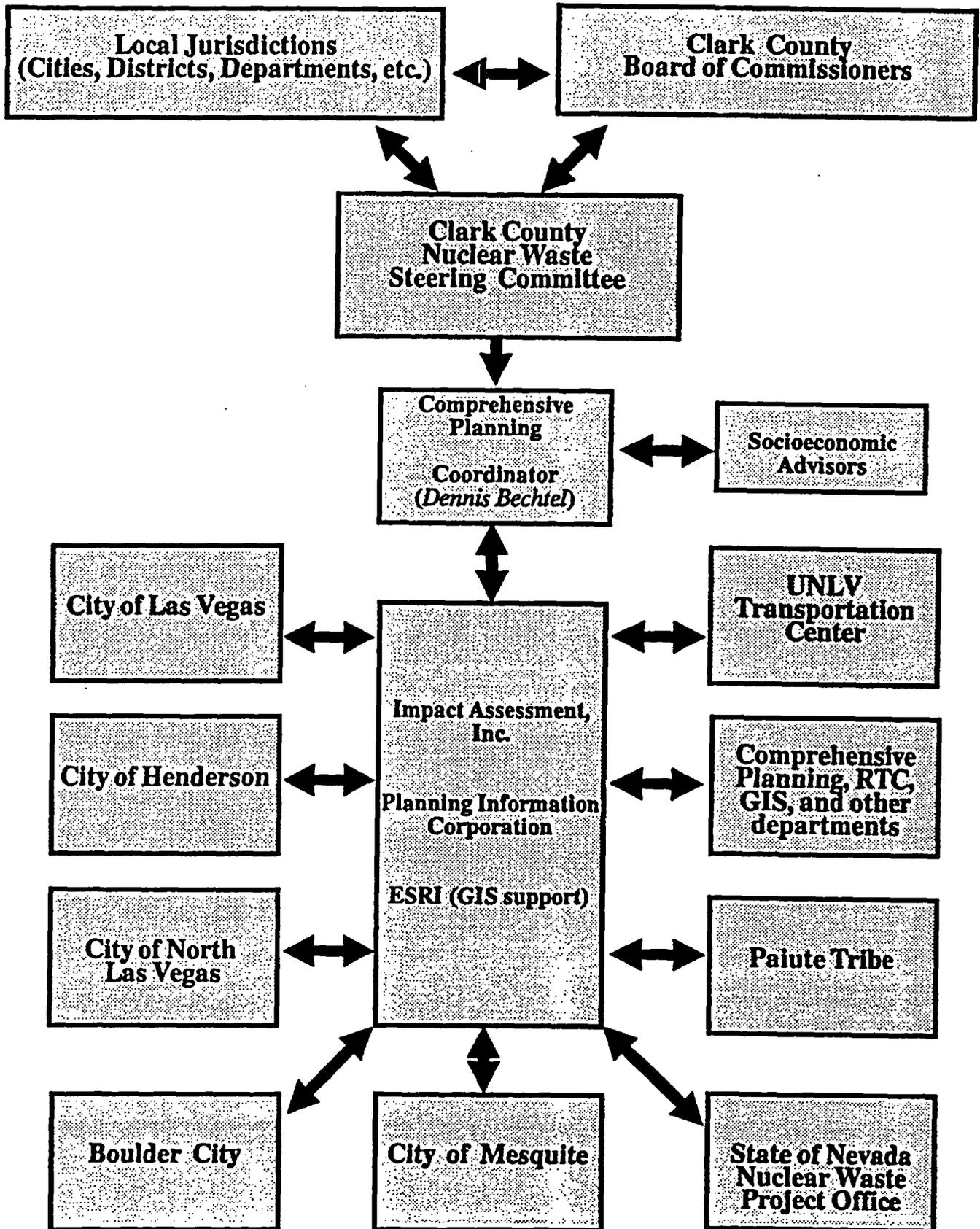
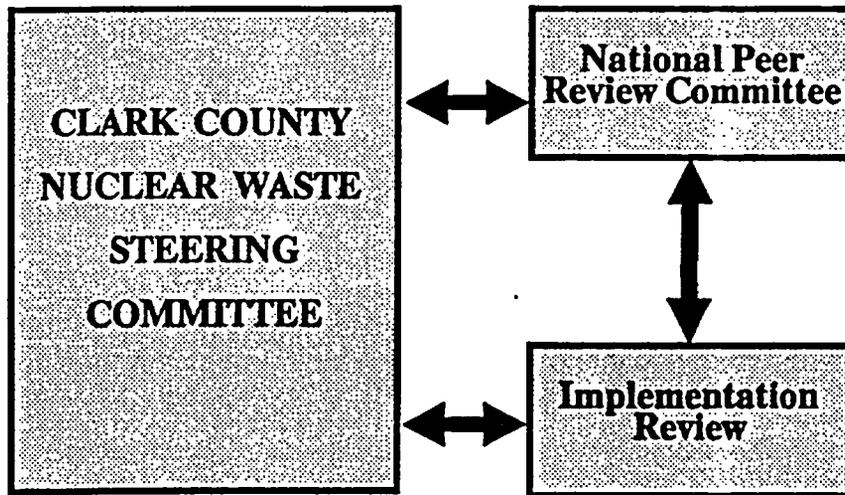


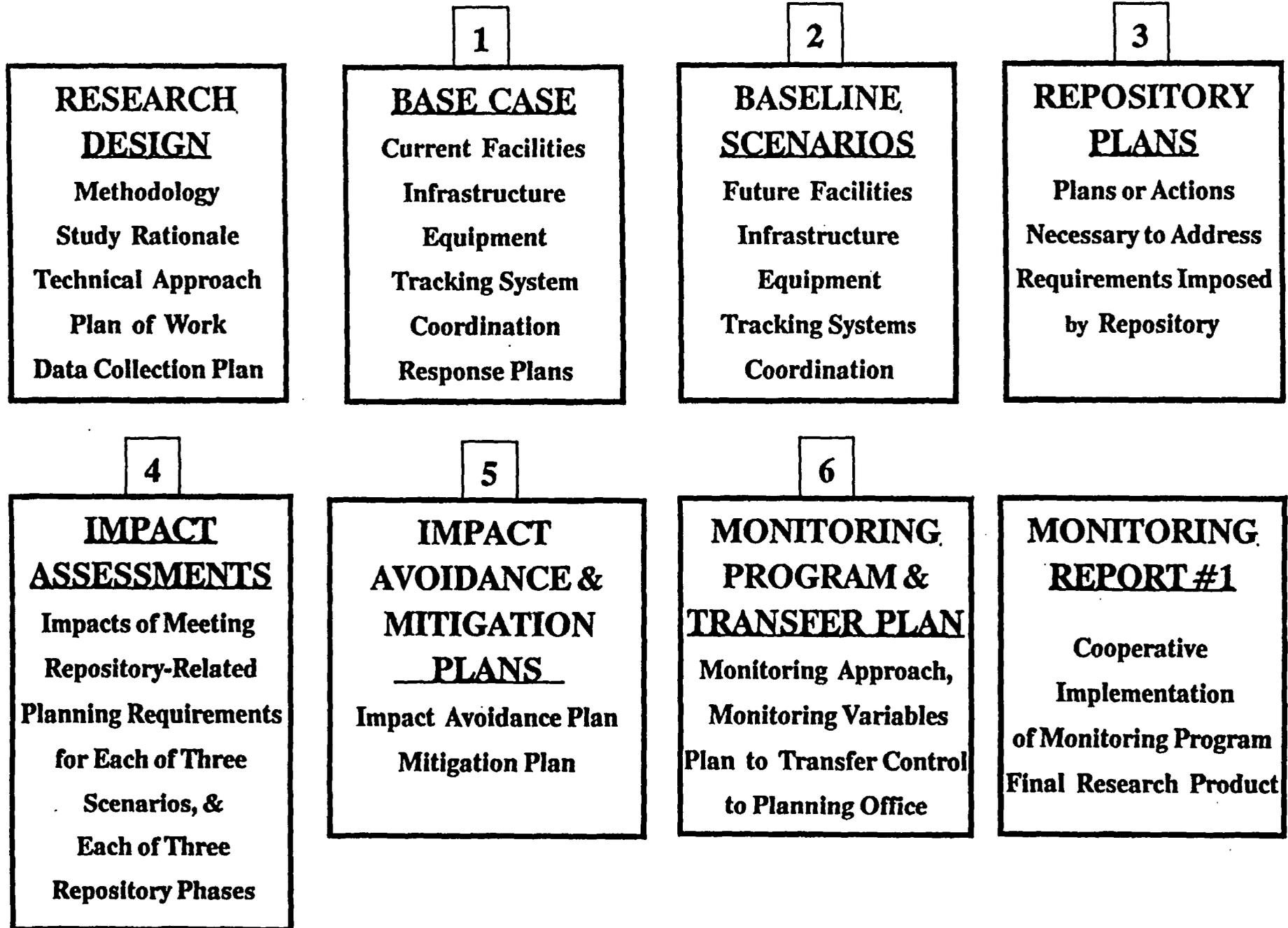
Figure 3
COORDINATION PLAN
SOCIOECONOMIC IMPACT ASSESSMENT PROGRAM
TECHNICAL REVIEW



**FIGURE 4
SCHEDULE OF DELIVERABLES**

ITEM #	TITLE OR DESCRIPTION	PRODUCT SUBMITTED	ESTIMATED CALENDAR DUE DATE
PHASE I			
I-1	Contract Start-Up	Contract	Aug. 30, 1990
I-2	Draft Research Design	30 Copies	Dec. 2, 1990
I-3	Final Research Design	30 Copies	Feb. 4, 1991
I-4	Interim Base Case Analysis	30 Copies	Jun 3, 1991
I-5	Draft Base Case Analysis	30 Copies	Jul. 18, 1991
I-6	Draft Interim Site-Char. Monitoring Report	30 Copies	Aug. 1, 1991
I-7	Final Base Case Analysis	30 Copies	Sep. 2, 1991
I-8	Final Interim Site-Char. Monitoring Report	30 Copies	Sep. 15, 1991
PHASE II			
II-1	Draft Baseline Scenarios Report	30 Copies	Nov. 21, 1991
II-2	Final Baseline Scenarios Report	30 Copies	Jan. 7, 1992
II-3	Draft Repository-Related Plans Report	30 Copies	Feb. 3, 1992
II-4	Final Repository-Related Plans Report	30 Copies	Apr. 6, 1992
II-5	Draft Interim Site-Char. Monitoring Report	30 Copies	Jul. 3, 1992
II-6	Final Interim Site-Char. Monitoring Report	30 Copies	Sep. 1, 1992
PHASE III			
III-1	Draft Construction & Operation Report	30 Copies	Nov. 9, 1992
III-2	Final Construction & Operation Report	30 Copies	Jan. 11, 1993
III-3	Draft Closure & Post-Closure Report	30 Copies	Mar. 15, 1993
III-4	Final Closure & Post-Closure Report	30 Copies	May. 17, 1993
III-5	Draft Impact Avoidance & Mitigation Plan	30 Copies	Jul. 10, 1993
III-6	Draft Interim Site-Char. Monitoring Report	30 Copies	Aug. 3, 1993
III-7	Final Impact Avoidance & Mitigation Plan	30 Copies	Sep. 1, 1993
III-8	Final Interim Site-Char. Monitoring Report	30 Copies	Sep. 15, 1993
PHASE IV			
IV-1	Draft Monitoring Program Plan	30 Copies	Dec. 6, 1993
IV-2	Final Monitoring Program Plan	30 Copies	Feb. 14, 1994
IV-3	Draft Final Monitoring Report #1	30 Copies	May 9, 1994
IV-4	Final Monitoring Report #1	30 Copies	Jul. 18, 1994

Figure 5: RESEARCH PRODUCTS



Study Framework

- (1) Precisely what are the current conditions? (i.e., the base case analysis);**
- (2) How are these conditions expected to change over the foreseeable future, assuming no repository development? (i.e., the baseline scenarios);**
- (3) What additional incremental changes are likely to result from the development of the repository and what plans must be formulated by County agencies to adequately respond to these changes? (i.e., the repository plans report);**
- (4) What are the costs and consequences of changes required to respond to the repository (i.e., impact assessments for each stage of development; site characterization, construction, operation, and post-closure);**

(5) How can these impacts be avoided, mitigated, or compensated? (i.e., the impact avoidance, mitigation and compensation plan); and

(6) Finally, how can this monitoring and mitigation program be transferred to Clark County for routine implementation?