1,428

DOE/ET-0029

DOE, 1979

Environmental Aspects of Commercial Radioactive Waste Management

Volume 3 of 3

May 1979

U.S. Department of Energy
Assistant Secretary for Energy Technology
Office of Nuclear Waste Management

CONTENTS OF TOTAL REPORT

Abbreviated contents of the total 3-volume report are listed here. Detailed contents for this specific volume are listed following this overview table of contents.

VOLUME I

FOREWORD 1

1.0 INTRODUCTION 1.1

2.0 SUMMARY OF FINDINGS 2.1

3.0 APPROACH TO ASSESSMENT OF ENVIRONMENTAL EFFECTS FROM RADIOACTIVE WASTE MANAGEMENT 3.1

- 3.1 Accident Analysis 3.1.1
- 3.2 Atmospheric Effects 3.2.1
- 3.3 Resource Commitments 3.3.1
- 3.4 Radiological Effects 3.4.1
- 3.5 Health Effects 3.5.1
- 3.6 Ecological Effects 3.6.1
- 3.7 Socioeconomic Effects 3.7.1
- 3.8 Uncertainties in Dose Calculations 3.8.1
- 3.9 Perspective for Dose and Health Effects 3.9.1

4.0 ENVIRONMENTAL EFFECTS RELATED TO RADIOACTIVE MANAGEMENT IN A ONCE-THROUGH FUEL CYCLE 4.1.1

- 4.1 Transportation of Spent Fuel 4.1.1
- 4.2 Environmental Effects Related to Waste Management at an Independent Spent Fuel Storage Facility (DOE/ET-0028 Sec. 5.7.2) 4.2.1
- 4.3 Environmental Effects Related to Extended Storage of Spent Fuel . 4.3.1
- 4.4 Environmental Effects Related to Geologic Disposal of Spent Fuel (DOE/ET-0028 Sec. 7.4) 4.4.1

5.0 ENVIRONMENTAL EFFECTS OF RADIOACTIVE WASTE MANAGEMENT ASSOCIATED WITH AN LWR FUEL REPROCESSING PLANT 5.1.1

- 5.1 Reference Fuel Reprocessing Plant 5.1.1
- 5.2 Treatment of Radioactive Wastes 5.2.1
- 5.3 Interim Storage of Radioactive Wastes at a Fuel Reprocessing Plant (DOE/ET-0028 Sec. 5) 5.3.1
- 5.4 Combined Effects of Waste Management at the Reference FRP . . 5.4.1
- 5.5 Alternative Reprocessing Options for a Fuel Reprocessing Plant: Analysis of Environmental Effects of Waste Management . . . 5.5.1

VOLUME II

6.0 ENVIRONMENTAL EFFECTS RELATED TO RADIOACTIVE WASTE MANAGEMENT ASSOCIATED WITH LWR FUEL REPROCESSING - MIXED-OXIDE FUEL FABRICATION PLANT 6.1.1

- 6.1 Reference Mixed-Oxide Fuel Fabrication Plant (DOE/ET-0028 Sec. 3.2.4) 6.1.1
- 6.2 Waste Treatment 6.2.1

6.3 On-Plant Interim Storage of Non-High-Level Transuranic Wastes at a MOX FFP 6.3.1

6.4 Alternatives for Decommissioning a MOX FFP 6.4.1

6.5 Combined Effects of Waste Management Facilities at the Reference MOX FFP 6.5.1

7.0 ENVIRONMENTAL EFFECTS RELATED TO TRANSPORTING RADIOACTIVE WASTES ASSOCIATED WITH LIGHT WATER REACTOR FUEL REPROCESSING AND FABRICATION 7.1.1

7.1 Transport of Solidified High-Level Waste 7.1.2

7.2 Transport of Fuel Residues 7.2.1

7.3 Transportation of Non-High-Level Transuranic Wastes (DOE/ET-0028 Sec. 6.6) 7.3.1

7.4 Transportation of Plutonium Oxide (DOE/ET-0028 Sec. 6.5) . . 7.4.1

7.5 Combined Environmental Effects of Reference Transportation Modes . 7.5.1

7.6 Environmental Effects Related to Decommissioning of Equipment . 7.6.1

7.7 Summary of Adverse Environmental Effects Related to Transport of Fuel Reprocessing Wastes 7.7.1

8.0 ENVIRONMENTAL EFFECTS RELATED TO RADIOACTIVE WASTE MANAGEMENT ASSOCIATED WITH LWR FUEL REPROCESSING - RETRIEVABLE WASTE STORAGE FACILITY 8.1.1

8.1 Interim Retrievable Storage of Solidified High-Level Waste (DOE/ET-0028 Sec. 5.4) 8.1.2

8.2 Interim Retrievable Storage of Packaged Fuel Residues (DOE/ET-0028 Sec. 5.2) 8.2.1

8.3 Interim Retrievable Storage of Intermediate-Level Transuranic Wastes 8.3.1

8.4 Interim Retrievable Storage of Low-Level Transuranic Wastes . . 8.4.1

8.5 Combined Effects of Reference Independent Retrievable Waste Storage Facilities 8.5.1

8.6 Interim Retrievable Storage of Plutonium Oxide 8.6.1

8.7 Differential Effects Related to the Uranium and Plutonium Recycle and the Uranium Only Recycle Options 8.7.1

9.0 ENVIRONMENTAL EFFECTS RELATED TO GEOLOGIC ISOLATION OF LIGHT WATER REACTOR FUEL REPROCESSING WASTES (DOE/ET-0028 Sec. 7.5) . . . 9.1

9.1 Environmental Effects Related to Facility Construction . . . 9.1.1

9.2 Environmental Effects Related to Facility Operation . . . 9.2.1

9.3 Environmental Effects Related to Postulated Accidents . . . 9.3.1

10.0 INTEGRATED SYSTEMS FOR COMMERCIAL RADIOACTIVE WASTE MANAGEMENT . . 10.1.1

10.1 Environmental Effects Associated with an Integrated Radioactive Waste Management System for the Once-Through Fuel Cycle Option - Prompt Disposal of Spent Fuel as Waste 10.1.1

10.2 Environmental Effects Associated with an Integrated Radioactive Waste Management System for the Once-Through Fuel Cycle - Decision to Dispose of Spent Fuel as Waste Deferred to Year 2000 or Disposal Facilities Unavailable until Year 2000 . . 10.2.1

10.3 Environmental Effects Associated with an Integrated Radioactive Waste Management System for LWR Fuel Reprocessing for Uranium and Plutonium Recycle with Prompt Disposal of Transuranic Wastes . 10.3.1

10.4 Environmental Effects Related to Radioactive Waste Management in the Deferred Reprocessing Option 10.4.1

10.5 Environmental Effects Related to Radioactive Waste Management in an Integrated System for the Uranium and Plutonium Recycle Option - with Waste Repositories Unavailable Until the Year 2000 . . . . . 10.5.1

10.6 Environmental Effects Related to the Integrated Waste Management System Facilities for the Uranium Only Recycle Option 10.6.1

VOLUME III

APPENDIX A A REFERENCE ENVIRONMENT FOR ASSESSING ENVIRONMENTAL IMPACTS ASSOCIATED WITH CONSTRUCTION AND OPERATION OF WASTE TREATMENT, INTERIM STORAGE AND/OR FINAL DISPOSITION FACILITIES A.1

APPENDIX B DOSE CALCULATIONS AND RADIOLOGICALLY RELATED HEALTH EFFECTS . B.1

APPENDIX C SOCIOECONOMIC IMPACT ASSESSMENTS C.1

APPENDIX D RELEASE/DOSE FACTORS AND DOSE IN 5-YEAR INTERVALS TO REGIONAL AND WORLD WIDE POPULATION FROM REFERENCE INTEGRATED SYSTEMS D.1

APPENDIX E RESOURCE AVAILABILITY E.1

APPENDIX F ENVIRONMENTAL MONITORING F.1

APPENDIX G DETAILED DOSE RESULTS FOR RADIONUCLIDE MIGRATION IN GROUNDWATER FROM A WASTE REPOSITORY G.1

APPENDIX H ANNUAL AVERAGE DISPERSION FACTORS FOR SELECTED RELEASE POINTS H.1

TABLE OF CONTENTS

APPENDIX A	A REFERENCE ENVIRONMENT FOR ASSESSING ENVIRONMENTAL IMPACTS ASSOCIATED WITH CONSTRUCTION AND OPERATION OF WASTE TREATMENT, INTERIM STORAGE AND/OR FINAL DISPOSITION FACILITIES	A.1
	Location of Site	A.1
	Regional Demography and Land Use	A.1
	Geology	A.2
	Meteorology	A.4
	Terrestrial Ecology	A.8
	Aquatic Ecology	A.11
	Pathway Parameters Relevant to Radiological Dose Calculations	A.16
APPENDIX B	DOSE CALCULATIONS AND RADIOLOGICALLY RELATED HEALTH EFFECTS	B.1
	Dose to Regional Population	B.1
	Dose to Worldwide Population	B.5
	Radiologically Related Health Effects	B.12
	Late Somatic Effects	B.13
	Genetic Effects	B.16
	Summary	B.18
	Health Effects from Krypton-85	B.21
	Health Effects from Tritium	B.22
	Health Effects from Carbon-14	B.24
APPENDIX C	SOCIOECONOMIC IMPACT ASSESSMENTS	C.1
	C.1 Approach to Assessment of Socioeconomic Impacts	C.1
	C.2 Reference Environments	C.15
	C.3 Waste Management Reference Systems	C.18
	C.4 The Forecasting Model	C.19
	C.5 Presentation of Socioeconomic Effects	C.130
APPENDIX D	RELEASE/DOSE FACTORS AND DOSE IN 5-YEAR INTERVALS TO REGIONAL AND WORLD WIDE POPULATION FROM REFERENCE INTEGRATED SYSTEMS	D.1
APPENDIX E	RESOURCE AVAILABILITY	E.1
	Cement	E.1
	Chromium	E.1
	Copper	E.2
	Lead	E.2
	Nickel	E.3
	Nitric Acid	E.3
	Petroleum	E.3
	Electricity	E.4

APPENDIX F	ENVIRONMENTAL MONITORING	F.1
	F.0 Introduction	F.1
	F.1 Radiological Monitoring	F.2
	F.2 Meteorological Monitoring	F.3
	F.3 Water Soils and Air Monitoring	F.6
	F.4 Ecological Monitoring	F.8
	F.5 Monitoring at Fuel Reprocessing Plant (FRP)	F.10
	F.6 Monitoring at the Mixed Oxide Fuel Fabrication Plant (MOX FFP)	F.18
	F.7 Monitoring at the Independent Spent Fuel Storage Facility (ISFSF)	F.12
	F.8 Monitoring at the Extended Spent Fuel Storage Facility (ESFSF)	F.26
	F.9 Monitoring at the Retrievable Waste Storage Facility (RWSF)	F.26
	F.10 Monitoring at the Geologic Waste Repository - Salt	F.29
APPENDIX G	DETAILED DOSE RESULTS FOR RADIONUCLIDE MIGRATION IN GROUNDWATER FROM A WASTE REPOSITORY	G.1
APPENDIX H	ANNUAL AVERAGE DISPERSION FACTORS FOR SELECTED RELEASE POINTS	H.1

APPENDIX C

SOCIOECONOMIC IMPACT ASSESSMENTS

Appendix C
SOCIOECONOMIC IMPACT ASSESSMENTS

C.1 APPROACH TO ASSESSMENT OF SOCIOECONOMIC IMPACTS

The socioeconomic impact analysis developed in this report gives particular emphasis to changes in local employment and population attributable to the construction and operation of a waste management facility. A model for projecting individual components of population and employment change over the life of the facility has been constructed. In addition, changes in demands for public services that are closely related to population and employment change are examined.

Each of the alternative waste management facilities considered generates socioeconomic impacts through 1) the employment requirements of construction and operation, 2) the demand generated for locally supplied material and service inputs, 3) the secondary economic growth generated by the project, and 4) the public revenues resulting from project operation. The first three of these impact sources affect the character and magnitude of private and public service demands of all kinds; the fourth affects governments' capacity to provide public services. In addition, project labor demands affect local labor markets by competing with labor employed in other activities in the site region and through a reduction in local unemployment.

For purposes of estimating socioeconomic impacts associated with each of the reference waste management facilities, only the employment requirements associated with facility construction and operation are considered. Other attributes of each alternative are not considered for three reasons. First, employment requirements more directly affect impact categories than do other input requirements or revenue generation. Examples of impact categories directly affected by employment and population change are demands for housing, education, and health services. Second, locally supplied material inputs are likely to contribute only minimally to the local socioeconomic impacts of the facilities in question. Considering the rural or semirural locations of the sites, most material inputs are expected to be imported rather than locally supplied. Finally, tax structures and prospective revenues vary widely across potential sites, making it difficult to provide estimates of revenue impacts in a generic study.

C.1.1 Socioeconomic Impact Categories

The identification of socioeconomic impact categories for this report has been guided by several considerations. The first of these is the legal requirement under the National Environmental Policy Act of 1969 (NEPA). The Act itself, as well as subsequent interpretations by the courts and clarification by the Council on Environmental Quality, has provided a minimum guide as to what must be treated in environmental impact statements. Accordingly, this report examines in considerable detail the impact of waste management strategies upon population concentration and population composition. Second, changes in population and employment are emphasized because of their certainty or inevitability. In contrast, the identification of more precise categories of impacts depends upon which mitigating strategies

are adopted. In a generic study, especially, the adoption of specific mitigating strategies cannot be anticipated. Finally, the report adopts impact categories for which objective and creditable forecasting methodologies are available and it neglects categories for which impact forecasts could be only speculative. For example, the report does not attempt to evaluate impacts related directly to mental illness, juvenile delinquency, educational attainment, or quality of life.

The generic nature of the study limits its ability to provide specific estimates for some categories of impacts. Important site-specific attributes essential to an estimation of more specific impacts include economic composition and tax structure of the site community, availability of community assistance funds to compensate affected communities, and extent of prior capacity utilization or excess capacity in capital-intensive public service areas such as utilities and transportation. Lacking such information, it is not possible to predict accurately how a major population addition to a community would affect requirements for new schools, hospitals, roads, water treatment facilities, and other community services. Neither is it possible to judge the fiscal capability of the community to provide the services called for by the new population, or the likelihood of taxes or community impact assistance being available to compensate for the additional cost of these services. For these reasons, the report's treatment of impacts beyond population and employment change is limited to an indication of the project-associated demand for various categories of public services that either are likely to have distributional impacts (especially upon the native population, which does not benefit from project operation and construction) or are closely linked to changes in demographic components included in the forecasting model. These service requirement estimates are based upon observed per-capita service ratios in the three regions considered.

C.1.2 Impact Forecasting: Population and Employment

A refined population projection model is used to generate a distribution of population by age and sex over time. The analysis provides for a projection of the baseline population in 5-year increments beginning with the assumed construction start-up date in 1980 and running through the operation phase of the project, which varies in duration depending on the facility being analyzed. The in-migrant employees and dependents associated with the project are estimated and distributed residentially throughout a commuting region. Migrants are allocated to the site county with a gravity model that takes account of distance, initial population distribution, and housing availability. The numbers of migrants who take up residence in the site county are then projected, separately from the baseline, over the same period.

In this study, impacts result solely from in-migrant primary and secondary* employment and associated dependents who relocate in the site county. Persons who commute to the site

* Primary employment is that employed directly by the project in question; secondary employment is indirectly caused by primary employment. The components of secondary employment are described in greater detail in Section C.1.3. [For a fuller discussion of these concepts, see Richardson[1] and Mertaugh.[2]]

county from residences outside the county are assumed to have no measurable or important impacts on the site county except, perhaps, on the provision of improved transportation systems, which are not considered in this analysis.* Additionally, workers and their families who resided in the site county prior to the project and remain there while employed on the project exert no new impacts on the county.

The size, rate of growth, and age and sex composition of the project-related migrant population are projected over the life of the project. The size and age structure of this population varies over time as a result of employment turnover and replacement and relocation of workers formerly employed on the project. Assumptions regarding the standard components of population change (fertility, mortality, and net migration) are also incorporated in the projection model. They, too, influence the size and structure of the population over time.

The projection of regional baseline population and employment begins with a population projection that uses information regarding the age/sex composition of the local population in the site regions and recent patterns of net migration, also differentiated by age and sex. These regional baseline projections provide estimates of the population change that the respective site regions are likely to experience in the absence of waste management facilities. The population data are transformed into labor force estimates through the use of the 1976 national labor force participation schedule for males and females of each adult age group. This labor force provides a portion of the manpower to meet employment demands of the project, depending on skill distribution, levels of unemployment, and availability to work on the project.

The projection model distinguishes primary and secondary employment resulting from construction and operation of waste management facilities. The migrant and nonmigrant components of primary and secondary employment are estimated from available labor supply and known employment requirements for each of the project alternatives using the projection model. Innovative features of this model are that it explicitly incorporates the elements of worker displacement from other regional jobs to project construction, excess migration, dependent additions to local labor force, turnover in the project operational staff, and propensity to leave the area after job separation.

C.1.3 Employment Multiplier Derivation

The accuracy of the primary and secondary employment estimates is critical to the quality of the impact forecasts provided in this report. Primary employment is actual employment in construction and operation of the facilities. Estimates of primary employment requirements for each of the technical alternatives are shown in Table C.1.

Secondary employment is the labor force generated by a project but not directly employed on the project. Although secondary employment is often described simply as "household serving," or meeting the consumption needs of the primary project labor force, there

* See Kasarda[3] for evidence that suburban population growth produces growth in central city service functions.

TABLE C.1. Manpower Requirements (in man-years per year) for Construction and Operation of Selected Waste Management and Production Facilities and Reference Facility Components

Facility	Mean Annual Construction Employment(a)	Mean Annual Operation Employment(b)	Impact Forecasts: Table No.
FRP production facility	1630	1000	C.6-C.11
FRP waste management reference system			
HLLW vitrification	165	54	C.12-C.17
Fuel residue packaging without compaction	38	15	
Failed equipment packaging	55	13	
Incineration of general trash and combustible waste	35	52	
ILW and LLW cement immobilization	35	7	
Group III filter module FRP	29	4	
Dissolver off-gas treatment	75	22	
Vessel off-gas treatment	82	9	
Krypton storage (Phase I)	194	26	
Fuel residue storage	130	4	
Outdoor surface storage LLW	2	3	
Indoor subsurface ILW	65	6	
Water basin storage of SHLW	290	60	
Total	1195	275	
FRP combined system	2825	1275	C.18-C.23
MOX FFP production facility	571	300	C.24-C.29
MOX FFP waste management reference system			C.30-C.35
Failed equipment packaging	4	5	
TRU LLW incineration	14	7	
LLW cement immobilization	34	2	
Outdoor surface storage of LLW	2	2	
Total	54	16	
MOX FFP combined system	625	316	C.36-C.41
Independent spent fuel storage facility (ISFSF): once-through, prompt disposal			C.42-C.47
Vent off-gas treatment	17	5	
Spent fuel storage modified for packaging	800	150	
Spent fuel packaging	533	146	
Total	1350	301	
Extended fuel storage system (ISFSF, SFPF, and DSCF)			C.48-C.53
Vent off-gas treatment	17	5	
Spent fuel storage (ISFSF) modified for packaging	800	150	
Spent fuel packaging (SFPP colocated with ISFSP)	533	146	
Dry caisson storage (DCSF)	340	60	
Total	1690	361	
Retrievable waste storage facility (RWSF)			C.54-C.59
Sealed cask storage for SHLW	800	127	
Fuel residue subsurface storage	168	7	
ILW indoor subsurface storage	88	22	
LLW outdoor surface storage	4	8	
Total	1060	164	
Waste repository, salt formation: U and Pu Recycle	1570	1000	C.60-C.65
Waste repository, salt formation: once-through	1430	688	C.66-C.71
Waste repository, granite: U and Pu recycle	3140	1200	C.72-C.77
Waste repository, granite: once-through	4290	800	C.78-C.83
Waste repository, shale: U and Pu recycle	1860	1000	C.84-C.89

TABLE C.1. (Contd)

Facility	Mean Annual Construction Employment(a)	Mean Annual Operation Employment(b)	Impact Forecasts: Table No.
Waste repository, shale: once-through	2000	722	C.90-C.95
Waste repository, basalt: U and Pu recycle	3710	1170	C.96-C.101
Waste repository, basalt: once-through	5290	760	C.102-C.107

a. Construction manpower estimates were obtained from DOE/ET-0028 expressed as total man-years for the duration of construction. Mean annual construction employment was derived by dividing the total manpower estimates by the assumed duration of construction to yield average person years per year as follows:

- FRP - 4 years
- MOX-FFP - 3.5 years
- ISPSF - 3 years
- ISFSF, SFPF and DSCF - 10 years
- RWSR - 15 years
- Repository - 7 years.

Since the projection methodology utilized in this impact forecasting procedure is based on a 5-year construction period, variation in the actual duration of construction is difficult to handle. See Section C.1.5.3 for further discussion of this issue.

b. Operation manpower estimates were obtained from DOE/ET-0028. For the waste management facilities, these estimates included operators, radiation monitors, and maintenance and craftsmen. In order to take account of supervisory and other overhead and administrative personnel, a constant factor (1.87), derived from cases where complete data were provided by field personnel, was used to inflate the data obtained from DOE/ET-0028.

are at least two distinct economic processes linking primary to secondary employment. The first of these is indirect employment expansion, which occurs as plant construction creates demands for locally supplied materials. The second determinant of secondary employment expansion is the stimulus to output and employment resulting from spending and successive respending of the wages and salaries of primary employees.

To transform these primary employment estimates for construction and operation into secondary employment estimates, a technique for secondary employment estimation developed by Stenehjem and Metzger[4] at Argonne National Laboratory has been utilized.

This technique combines the simplicity of economic base analysis and some of the industrial disaggregation of input-output analysis.* Stenehjem and Metzger provide a set of region and industry group-specific** secondary employment multipliers for each of 21 regions in the contiguous United States. Each multiplier is estimated by a cross-sectional regression of employment data by county and represents the change in secondary employment that is expected to accompany an exogenous change in employment in the respective industry groups. The advantages of this technique are that it 1) is easily implemented, 2) distinguishes between major industry groups, 3) includes the experiences of counties with diverse industrial mixes and at different stages of development, and 4) accounts for regional differences affecting secondary employment generation.

The source of the secondary employment multipliers used in deriving population and employment impact projections differs according to the projection series in question. For the construction phase (1980 to 1985) for each facility alternative, the "expected impact" multiplier is the Stenehjem-Metzger regional multiplier for manufacturing and construction employment for the respective reference sites. The "maximum impact" multiplier for construction is the maximum of the regional manufacturing and construction employment multipliers reported by Stenehjem and Metzger; it is, therefore, the same magnitude for all three sites.

The industry group breakdown adopted by Stenehjem and Metzger in estimating their regression employment multipliers does not offer a viable category for plant operation. For

---

* Economic base analysis discerns two major components of employment and output in a region: basic or export industries, whose output is sold primarily outside the region and is therefore independent of local demand conditions, and nonbasic or "household-serving" industries, whose output is primarily locally sold and depends upon local demand conditions elaborated in Richardson[1] and Mertaugh.[2] Growth of total regional output and employment is characterized by economic base analysis as being narrowly linked to exogenous changes in demand for the output of export industries. According to this view, growth of export industries is the source of all regional output and employment growth, bringing into the region external funds which are then spent and respent for locally provided goods and services. A major deficiency of economic base analysis is its artificial distinction of only two categories of output and employment. Essentially, all basic industries in a region are assumed to be identical in their characteristics affecting secondary employment and output generation. But important differences among basic industries in a region may lead to sizable errors in secondary employment estimates derived from economic base analysis. Input-output analysis, in which production technologies for all the industries of a region are represented in an input-output matrix, fully accounts for such industry differences, but is unwieldy and expensive to implement.

**The industry group that represents construction in the model combines manufacturing and construction.

this reason, the simple economic base multiplier was used as the basis of the employment estimates for the operation stage of each of the facility and process alternatives. These multipliers, again, are taken from Stenehjem and Metzger,[4] and were calculated from county employment data. The expected impact multiplier in each case is the simple economic base multiplier for the site county, and the maximum impact multiplier is the maximum of the simple economic base multipliers for all the counties in the respective site states (see Table C.2 for a detailed presentation of these multipliers).

TABLE C.2. Employment Multipliers

Work Phase	Impact Condition	Southwest	Reference Site Midwest	Southeast
Construction	Expected[a]	1.7	0.6	0.2[b]
	Maximum[c]	1.7	1.7	1.7
Operations	Expected[d]	1.4	1.0	0.7
	Maximum[e]	4.2[f]	2.5	3.2

Source: E. J. Stenehjem and J. E. Metzger, A Framework for Projecting Employment and Population Changes Accompanying Energy Development, prepared for the Assistant Administrator for Planning Analysis and Evaluation, U.S. Energy Research and Development Administration, Argonne National Laboratory, Argonne, IL, August 1976.

a. Regional multipliers for manufacturing and construction.
b. The regional multiplier for the Southeast site region was zero; the lowest nonzero multiplier for a nearby region was substituted here.
c. The largest of all the estimated regional multipliers has been applied to each reference site to represent the maximum impact condition.
d. County-specific simple multiplier representing the reference site county.
e. Largest county multiplier for state containing reference site.
f. Largest county multiplier considered too large (>17) compared with other sites; therefore substituted next-largest county multiplier for site state.

C.1.4 Social Service Demands

Primary and secondary labor force and associated dependents who reside in proximity to the construction site will require the support of a wide range of social services. Interest in this study focuses on demands (expectations) for social services by the in-migrant population residing in the site county.

The mechanism by which in-migrant population size and age composition are translated into social service demand in the model is a set of social service ratio multipliers (Table C.3). These multipliers are expressed as a ratio of units of the service to units of a relevant population. The product of these ratios and the projected net in-migrant project population will provide a measure of new demand for selected services over time.

There are several assumptions and important limitations related to this procedure. Although it is clear from casual observation that large populations have larger, more complex social service infrastructures than small populations, it is not necessarily clear how

TABLE C.3. Social Service Impact Demand Ratios by Site

Social Service	Southwest Site	Midwest Site	Southeast Site
Health			
Physicians/1000[a]	1	1.3	0.9
Nurses/1000[b]	2.6	5	2.9
Dentists/1000[c]	0.3	0.6	0.3
Hospital beds/1000[d]	3.3	5.9	3.7
Nursing care beds/1000 aged 65+[e]	40.8	105.1	38.3
Education			
Teachers/100 students: K-8[f]	4.3	4.3	4.3
Teachers/100 students: 9-12[f]	5.3	5.3	5.3
Classroom space: sq. ft./100 students 9-12[g]	15,000	15,000	15,000
Sanitation			
Water treatment: gal/person/day[g]	150	150	150
Solid waste: collection vehicles/1000[g]	0.1	0.1	0.1
Solid waste: garbage men/1000[g]	0.3	0.3	0.3
Liquid waste: gal/person/day[g]	100	100	100
Fire and Police			
Firemen/1000[g]	0.7	0.7	0.7
Policemen/1000[g]	2	2	2
Recreation			
Playgrounds: acres/1000[g]	1	1	1
Neighborhood parks: acres/1000[g]	0.8	0.8	0.8
Community parks: acres/1000[g]	1.2	1.2	1.2
Social Problems			
Crime index: crimes/1000[h]	58.4	43	46.4
Government			
Administrative staff/10,000[g]	9	9	9

a. Active nonfederal physicians providing patient care in state containing site. AMA Center for Health Services Research and Development, Distribution of Physicians in the U.S., 1973, Table 9, G. A. Roback, ed., American Medical Association, Chicago, IL, 1974. As cited in the U.S. Department of Health, Education, and Welfare, Health: United States 1975, DHEW Publication No. (HRA)76-1232, Public Health Service, Health Resources Administration, National Center for Health Statistics, Rockville, MD, 1976 (hereinafter referred to as HRA 76-1232), Table B.I.12.

b. Registered nurses employed in nursing in state containing site. American Nurses Association, Statistics Department, 1972 Inventory of Registered Nurses, Kansas City, 1974. As cited in HRA 76-1232, Table B.I.19.

c. Active nonfederal dentists in state containing site. U.S. Department of Health, Education, and Welfare, Division of Dentistry, Bureau of Health Manpower, Health Resources Administration. As cited in HRA 76-1232, Table B.I.15.

d. Nonfederal and nonprofit hospital beds in state containing site, 1973. U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Hospitals: A County and Metropolitan Area Data Book, 1973, Rockville, MD, 1976.

e. Beds in nursing care homes, personal care homes with or without nursing, and domiciliary care homes in state containing site, 1973. National Center for Health Statistics, unpublished data from the Master Facility Census. As cited in HRA 76-1232, Table B.II.6.

f. National teacher/student ratios. U.S. Bureau of the Census, Statistical Abstract of the United States: 1975 (96th edition, Table 211: Public Elementary and Secondary Teachers, 1974), Washington, DC, 1975.

g. E. J. Stenehjem and J. E. Metzger, A Framework for Projecting Employment and Population Changes Accompanying Energy Development, Phase II, report prepared for the Assistant Administrator for Planning and Analysis and Evaluation, U.S. Energy Research and Development Administration, Argonne National Laboratory, Argonne, IL, October 1976.

h. Number of "index crimes," referring to seven major offenses known by the police, in state containing site. U.S. Department of Justice, Federal Bureau of Investigation, Crime in the United States: 1975, Uniform Crime Reports, Washington, DC, 1976.

population fluctuations over time are translated through political and fiscal mechanisms into changes in the quantity or quality of services provided. As a case in point, a careful study of the impacts of the construction of a large steel facility in a rural community concluded that even a 10% increase in the local population resulted in no significant difference in public expenditures for most social services compared with similar neighboring communities experiencing less than 2% growth in population.[5] It will not only be assumed that population is directly related to service demand by way of the ratio multiplier, but also that this relationship is described by a continuous function that ignores both economies of scale and the discrete nature of services. Stenehjem and Metzger[6] focus on population size as one of the more important of 11 primary variables determining social service provision, but they emphasize the importance of unique local conditions in influencing this relationship between changes in population and changes in service levels.

The selection of an appropriate ratio multiplier is problematic, especially in a generic study. The actual demand for services involves a balancing of local expectations with potentially higher expectations on the part of the in-migrants. It is difficult to estimate either local standards or standards existing in the migrants' communities of origin that could be said to properly represent their respective demand. In this study, the county is taken as the unit of analysis, and standards for communities within these counties may vary considerably from the county average. State standards will be utilized where available and either national or other empirically estimated standards where state data are lacking. In-migrants will probably expect a higher level of services than is likely to be provided in the relatively rural reference sites, since most of these construction and operation workers will be coming from nearby urban areas where more adequate services are available. The state's level of service provision thus becomes the best estimate of the in-migrants' service demands. The use of a ratio multiplier also assumes that added incremental service demands are distributed uniformly throughout the area--clearly a simplification of reality. Finally, these multipliers will be applied to in-migrant populations only, and will not reflect the unique demands for service support exerted on the site county by the facility itself.

Service demands take the form of new capital and operational requirements. The former refers to the need to expand a system's capacity by adding buildings and equipment. The latter refers to the addition of personnel within an existing capital structure. Personnel needs can be satisfied more readily than capital needs as, for example, teachers versus schools, or doctors versus hospitals. The use of ratio multipliers in a generic study ignores the extent to which a system is operating at or near capacity. A system forced to expand capacity will suffer larger impacts than one that can absorb new demand with existing excess capacity. The multiplication of these ratios and net new in-migration can only estimate the size of new demand, not how that demand will be met by the system. Projected impacts are, then, only potential, or implied, impacts.

C.1.5 Limitations to Approach

The approach adopted is limited both by the nature of the task and by the methodology employed. Some of these limitations are discussed in some detail elsewhere in this appendix; therefore, the more important issues in this regard are briefly presented here.

C.1.5.1 Focus of the Study

This is a generic study of socioeconomic impacts. In this context it is not possible to use information on service system capacity to absorb additional impacts; to analyze local tax structures and specific fiscal impacts; or to anticipate mitigating strategies that might be adopted in response to impending impacts. The objective of this study is to forecast the demographic structure from which impacts are derived and to estimate demand for services. The accuracy of impact forecasts will depend upon the model's specifications and on the validity of the assumptions incorporated in the model. The assumptions are judgmental and are presented in Table C.4. (See Pittenger[7] for a discussion of standards by which to evaluate forecasts of this type.)

C.1.5.2 Sensitivity Testing

The model used in this analysis has not been subjected to extensive sensitivity testing. Therefore, it is not possible at this time to specify precisely how parameters of the model (for example, fertility rate, secondary employment multipliers, distance elasticity in the gravity model) affect the forecasted level of output--namely, the size of the in-migrant population at a future time. In any case, multivariate models are complex and subject to interaction effects, such that the specification of precise relationships between parameters and output values may not be possible. While it would be convenient to say that a doubling of employment demand on the project would result in a doubling of impacts, it is not clear--in the absence of sensitivity testing--that the relationship between input variables and forecasted impacts is linear.

C.1.5.3 Projection Methodology

The projection methodology is based on a 5-year projection cycle, as opposed to a 1-year cycle, due to greater ease in data handling and implementation of the model. There are, however, several inherent drawbacks associated with this approach.

First, the construction phase of the project is constrained in this model to the first 5-year period (1980 to 1984). Construction, however, may be completed in less than 5 years. In addition, for certain storage facilities, the construction of facility components depends upon the volume and rate of flow of wastes to be managed. This means that construction activities may be spread out over a long period while those facilities first constructed are in the maintenance or operation phase. These difficulties are dealt with by estimating the mean person-years per year required for construction and by assuming that all construction is completed during the 1980 to 1984 period. In the few instances when construction is planned to take place after 1985, the construction employment in the later period is absorbed into the operation employment estimate for purposes of impact forecasting.

TABLE C.4. Selected Assumptions Incorporated in Impact Projection Model by Site, Impact Condition, and Data Source

Model Component	Data Source	Baseline	Expected Impact	Maximum Impact	Comments
Fertility rate	a,b	State rate	Same	Same	Fertility rate converges to replacement by 1990.
Mortality rate	c	State rate	Same	Same	Constant rate throughout.
Net migration rate	d,e	County rate	Same	Same	Converges to zero by 1990.
Sex ratio at birth	b	State ratio	Same	Same	
Labor force participation rate	f		National rate	Same	Total labor force as a percentage of noninstitutionalized population aged 16+. Assume constant over-time.
Unemployment rate	g		State rate	Same	Assume 1975 rate. Converges to 1970 rate by 1990.
Total construction employment	a		Regional level	Same	1970 county levels aggregated.
Proportion of labor force in construction	h		Regional level	Same	1970 county levels aggregated.
Ratio of regional construction unemployment to national unemployment	a	2.04	2.04		
Housing vacancy rate	i		County rate	Same	Input to gravity model.
Proportion of housing dilapidated	i		County rate	Same	Input to gravity model.
Distance from county to site	j		Miles	Same	Site assumed to be in geographic center of county.
Proportion of females in labor force	k		0.45	0.45	Assumed constant over time, though it is rising slowly.
Proportion of wives of male employees employed in secondary activities	k		0.45	0.45	Assumed to be the same as proportion of females in labor force.
Age-specific proportion of women married, spouse present, of all married	l		National	Same	Intercounty movers 1975-76.

TABLE C.4 (Continued)

Model Component	Data Source	Baseline	Expected Impact	Maximum Impact	Comments
Nonspouse dependents of male by age	l		National	Same	Intercounty movers 1975-76.
Age/sex distribution of dependents	l		National	Same	Intercounty movers 1975-76.
Age distribution of never-married females in civilian labor force	l		National	Same	Intercounty movers 1975-76.
Age distribution of male employees:					
· Primary construction	m		Western region	Same	Based on responses of workers on selected coal projects.
· Secondary construction	m		Western region	Same	
· Primary operation	l		National	Same	Intercounty movers 1975-76.
· Secondary operation	l		National	Same	Intercounty movers 1975-76.
Age-specific male employment turnover rate	k		Same	Same	20% age 15-19 to 10% age 60-64, then 100% age 65-69 over 5-year period.
Proportion of unemployed construction labor force who work on project	k		0.20	0.05	Empirical data bearing on this item (and the next five items) are either scarce or nonexistent. Estimates are conjectural and may be easily altered by the user.
Proportion of construction employment displaced (of project employment)	k		0.20	0.05	
Proportion of construction employment displaced (of regional labor force)	k		0.40	0.10	
Proportion of displaced construction employment replaced by migrants	k		0.50	0.85	
Proportion of construction employment constituting excess migration	k		0.10	0.20	
Proportion of region's unemployed available for secondary employment	k		0.10	0.05	

TABLE C.4 (Continued)

Model Component	Data Source	Baseline	Expected Impact	Maximum Impact	Comments
Distance exponent in gravity model:					
• Primary construction	m		0.85	1.60	
• Secondary construction	n		1.50	2.60	
• Primary operation	k		1.00	2.00	Exponent for each category of operation worker is assumed to be larger than for construction.
• Secondary operation	k		2.50	3.00	
Household dependency multiplier:					
• Primary construction	m		2.28	2.28	
• Secondary construction	l		3.47	3.47	Intercounty movers 1975-76.
Proportion of migrant construction employees who stay after 1985:					
Primary construction					
• Southwest site			0.10	0.10	Proportion staying is a function of estimated net migration in 1985, and Mountain West Research findings on workers who planned to stay.
• Midwest site			0.71	0.71	
• Southeast site			0.32	0.32	
Secondary construction					
• Southwest site			0.32	0.32	
• Midwest site			0.81	0.81	
• Southeast site			0.50	0.50	
Proportion of migrant operation employees who stay after turnover			0.34	0.34	Assumed zero net migration by 1990 for all sites.
Proportion of operation dependents who independently leave site at age 20	k		0.50	0.50	
Employment multipliers	o		See Table C.2		

a. U.S. Bureau of the Census, Census of Population: 1970, Vol. 1, Characteristics of the Population (state volumes), U.S. Government Printing Office, Washington, DC, 1973.
b. U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Vital Statistics of the United States, Vol. 1, Natality, Table 1-54, Rockville, MD, 1970.
c. U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, U.S. Decennial Life Tables for 1969-71: State Life Tables, Rockville, MD, June 1975.
d. U.S. Bureau of the Census, Current Population Reports, Population Estimates and Projections, Series P-25, U.S. Government Printing Office, Washington, DC, 1976-1977.

TABLE C.4 (Continued)

e. U.S. Department of Agriculture, Net Migration of the Population, 1960-70, by Age, Sex, and Color, University of Georgia Printing Department, Athens, GA, December 1975.
f. U.S. Bureau of Labor Statistics, Employment and Earnings, Vol. 24, No. 1, U.S. Government Printing Office, Washington, DC, January 1977.
g. U.S. Bureau of Labor Statistics, PWEDA Area Employment and Unemployment, 1975 (Annual), U.S. Government Printing Office, Washington, DC, November 1976.
h. U.S. Bureau of the Census, Census of Population: 1970, Vol. 1, Characteristics of the Population, Tables 87 and 123, U.S. Government Printing Office, Washington, DC, 1973.
i. U.S. Bureau of the Census, Census of Housing: 1970, Housing Characteristics for States, Cities, and Counties (state volumes), U.S. Government Printing Office, Washington, DC, 1972.
j. Straight-line miles from county center to site.
k. Estimated by authors.
l. U.S. Bureau of the Census, Current Population Reports, Population Characteristics, Series P-20, No. 305, "Geographical Mobility: March 1975 to March 1976," U.S. Government Printing Office, Washington, DC, 1977.
m. Mountain West Research, Inc., Construction Worker Profile, Final Report, a study for the Old West Regional Commission, Denver, CO, December 1975.
n. F. L. Leistritz and S. H. Murdock, Research Methodology Applicable to Community Adjustments to Public Land Use Alternatives, discussion paper for presentation at the Forum on the Economics of Public Land Use in the West, Reno, NV, March 10-11, 1977, North Dakota State University, Fargo, ND, 1977.
o. E. J. Stenehjem and J. E. Metzger, A Framework for Projecting Employment and Population Changes Accompanying Energy Development, prepared for the Assistant Administrator for Planning Analysis and Evaluation, U.S. Energy Research and Development Administration, Argonne National Laboratory, Argonne, IL, August 1976.

The second problem here is that construction employment is differentially phased over the construction period such that a marked peak occurs about two-thirds of the way into project construction. The use of the mean person-years per year during the first 5-year projection cycle essentially ignores the peaking of employment. However, it is reasonable to assume that workers who come onto the job during peak periods of construction tend to be specialists who are transient with respect to their employment histories. They have a particularly low probability of residing in the site county and are most likely to commute to work. If these assumptions are correct, then mean employment is a good, unbiased estimator of construction employment.

C.1.5.4 Level of Analysis

The last limitation to be discussed reflects the level of analysis chosen for this generic study. Based on the relative availability of secondary data, the county has been adopted as the unit of analysis. Impacts are felt and managed at different levels, all the way from the nation to the household. But most of the important socioeconomic impacts likely to be generated by the construction and operation of waste management facilities will be exerted at or below the county level. Once demographic effects and service demands have been forecast at the county level, individual communities or school districts, for example, can readily assess the likelihood of localized effects and develop mitigating strategies accordingly. In the context of a county-level analysis, it is also apparent that the total effects attributable to a project are not being addressed. Some portion of the total project-induced impacts will accrue to other counties and communities within the impact region (and perhaps outside the region also). While the methodology adopted here could, with minor alteration, address total regional impacts, attention is limited to impacts on the county containing the site.

C.2 REFERENCE ENVIRONMENTS

A generic assessment of socioeconomic impacts incorporates the assumption that a variety of sites may be under consideration for development of nuclear waste management facilities. Since the potential sites may differ considerably in terms of their distinguishing characteristics--especially population size, composition, distribution, industrial composition of the labor force, and availability of social services--it is necessary to examine the potential effects of energy facilities on a number of alternative sites. For example, it is reasonable to assume that a highly urbanized community offering a wide range of services to residents will experience fewer negative effects from the construction and operation of a project than will a sparsely populated rural community. In the latter, even a relatively small project could produce disruptive effects.

In addition to considering alternative reference sites, it is also necessary to assess the effects of several types of nuclear waste management facilities. These facilities differ substantially in terms of the number of workers needed for construction and operation, the potential hazards created through storage and transportation of noxious materials, and the amount of land occupied. It is thus reasonable to expect that socioeconomic impacts will differ in type and degree according to the facility in question.

C.2.1 Criteria for Reference Site Selection

Three reference sites were chosen from a larger number of possible locations for nuclear waste facilities on the basis of several criteria.

- Geologic conditions: One reference site offers sufficient salt deposits to be used as a waste disposal facility. Another is underlaid by granite.
- Population size: The three sites vary markedly in terms of the total number of inhabitants at the site and in the surrounding region.
- Population distribution: The three sites exhibit variations in population density and degree of urbanization.

Although it was not feasible to consider a sufficient number of alternative sites to exhaust all possible combinations of the above criteria, the three sites selected for analysis permit an assessment of a wide range of variation in impacts to be expected.

C.2.2 Characteristics of Reference Sites

In order to emphasize that the reference sites are hypothetical, they are labeled Midwest, Southeast, and Southwest. Each reference site consists of a single county. The region within which the county is located is defined as the aggregation of all counties falling substantially within a 50-mile radius of the site. If more than half of a county is included within that 50-mile radius, it is included in the region.

Regional populations are important for assessing site impacts because a sizable portion of the project employees may commute to work from regional localities. Fifty miles represents the maximum commuting distance that most workers are willing to undertake. Furthermore, population redistribution within the region may result in project-related impacts.

Summary data for the site counties and surrounding regions are presented in Table C.5. Two types of comparisons can help in interpreting these data. First, there are marked differences among the sites, whether based on county or regional comparisons. Second, there are important differences between the county and region for each site. From the population data it is evident that the Southwest and Midwest regions are highly urbanized when compared with the Southeast region. Differences among the three counties are even greater. While the Midwest site falls within the most urbanized region, the county containing that site has the smallest urban component. In fact, each site county is less urbanized than its corresponding region, reflecting the likelihood that disposal sites will be situated away from urban centers and densely settled areas. The density figures also support this observation.

The sites vary dramatically in terms of population change over the 1965 to 1970 period, with the Southwest site showing a marked decline, the Midwest site showing a comparable increase, and the Southeast site remaining relatively stable. From 1970 to 1975 all sites gained population, and the differences among the rates of change are smaller than in the preceding 5-year period. These changes over the decade can be attributed to two components: natural change and net migration. Natural change is the difference between births and deaths. Net migration is the difference between the number of persons moving into an area

TABLE C.5. Selected Data Characteristics of Three Reference Sites

Characteristic	Southwest Site		Midwest Site		Southeast Site	
	County	Region	County	Region	County	Region
Population:						
Estimated total population 1975[a]	41,000	134,000	47,000	2,154,000	17,000	487,000
% Change 1965-1970	- 8.5	- 8.6	15.0	11.1	-1.4	4.2
% Change 1970-1975	3.2	5.8	24.9	3.8	11.9	2.6
Unemployed construction labor force, 1980[b]	...	390.0	...	10,660.0	...	2,420.0
Net migration rate 1965-1970[c]	-14.9	-14.6	7.4	3.0	-6.6	-2.4
Net migration rate 1970-1975[c]	- 0.9	0.5	18.4	-0.7	6.1	-2.2
% Urban 1970[d]	76.9	78.9	8.4	85.1	40.9	50.1
Density 1970 (persons per sq. mi.)[d]	9.9	9.2	57.8	246.8	31.1	60.1
% Nonwhite 1970[d]	2.9	5.0	0.3	2.4	41.3	38.3
% Families with children under 18, 1970[d]	56.8	59.3	59.4	59.7	57.6	57.6
Median age 1970[d]	27.2	26.3[e]	25.6	25.6[e]	24.9	24.5[e]
Employment:						
Nonworker to worker ratio[d]	1.7	1.7	1.6	1.3	1.4	1.5
% Employed in farming[d]	5.7	5.8	13.6	2.2	8.5	4.9
% Employed in construction[d]	7.7	5.6	6.0	3.7	5.2	5.8
% Unemployed[d]	5.1	5.1	4.5	3.3	4.6	4.3
% Below poverty level[d]	17.8	16.6	10.8	5.5	24.6	22.3
Median family income[d]	7,870	7,965[e]	8,936	11,242[e]	6,997	7,166[e]
Education:						
Median years school completed[d]	11.9	12.0[e]	12.2	12.3[e]	9.8	10.6[e]
% High school graduates[d]	49.3	51.3	56.0	64.5	29.8	37.0
Housing:						
% Housing units renter occupied[f]	25.9	25.7	15.8	31.5	33.4	33.2
% Units vacant[f]	16.1	18.2	6.4	3.4	9.4	8.3
Trailers as % of housing units[f]	2.5	3.3	6.5	1.8	7.2	5.8
% Units lacking plumbing[f]	5.0	3.6	8.7	4.0	29.3	19.7
% Units built 1939 or earlier[f]	19.2	17.6	53.3	41.1	36.8	30.6
% Units with 1+ persons per room[f]	11.7	11.6	9.5	6.9	15.1	13.1
% Units using public sewer service[f]	77.8	82.1	39.3	82.7	45.8	46.3

a. U.S. Bureau of the Census, Current Population Reports, Population Estimates and Projections, Series P-25, U.S. Government Printing Office, Washington, DC, 1976-1977.
b. Estimated in population impact projection model.
c. U.S. Department of Agriculture, Net Migration of the Population, 1960-70, by Age, Sex, and Color, University of Georgia Printing Department, Athens, GA, December 1975.
d. U.S. Bureau of the Census, Census of Population: 1970, Vol. 1, Characteristics of the Population, U.S. Government Printing Office, Washington, DC, 1973.
e. Weighted estimates.
f. U.S. Bureau of the Census, Census of Housing: 1970, General Housing Characteristics, Final Report, U.S. Government Printing Office, Washington, DC, 1971.

and the number moving out. Each site has experienced an excess of births over deaths, thus serving to moderate the population loss due to emigration from the Southwest and Southeast sites over this period while increasing the growth experienced by the Midwest site. Population change has important consequences with respect to the capacity of a site to absorb impacts. Counties which are experiencing rapid population growth may be more likely to plan to accommodate excess demand on local services than would counties that are not growing. On the other hand, counties which are losing population may have underutilized service sectors, which would then be available to serve the needs of project-related in-migrants.

While the Southwest county has a high urban component compared with the Midwest county, it is only one-fifth as densely populated. In the Southwest region most people live in towns just large enough to qualify as urban by the U.S. Census Bureau (2500 or more). The nearest metropolitan center (population 50,000 or more) is over 100 miles from any part of the Southwest region. The Midwest region, however, contains a very large metropolitan center, though the site itself is primarily rural.

Looking briefly at the data related to employment, it is apparent that the Midwest site residents enjoy the highest standard of living. This is true for both the county and the region and is reflected by relatively high family income, low percentage of unemployed, and low percentage below the poverty level (defined for 1975 by the U.S. Census Bureau as $5500 for a nonfarm family of four). In contrast, almost one-fourth of the Southeast site residents are below the poverty level, and the median income for the Southeast region is less than two-thirds that for the Midwest region. Similar regional differences are reflected in the data presented on education. The Southeast site residents are substantially less educated than residents from the other two sites--a condition to be expected from the more rural character of the Southeast site.

Housing variables are critical because they reflect the ability of a community to adequately accommodate a substantial population influx. Vacancy rates and housing conditions determine the ease with which the incoming workers and their families can find adequate, affordable living space. In this regard, the Southwest site is apparently best situated to accommodate a population influx. It has a higher vacancy rate and its housing units are both newer and in better condition than are those at the other two sites. In addition, a very high proportion of the Southwest site housing facilities is connected to a public sewer service.

The three reference sites selected are each distinct in terms of demographic, economic, and social service characteristics. If the waste management facilities to be considered are to result in significant socioeconomic impacts, this should be evident at one or more of these sites.

C.3 WASTE MANAGEMENT REFERENCE SYSTEMS

The model used in this generic study postulates that social and economic impacts are caused by the settlement of new migrants in the site county. Therefore, projection of the in-migrating, project-related population is based on a determination of the construction and operation manpower requirements specific to the waste management system to be built and

operated. A fuel reprocessing plant, for example, can be configured in a variety of ways, depending upon the size and types of facilities which will manage waste by-products. The major systems and their alternative configurations to be analyzed include the fuel reprocessing plant (FRP), the mixed-oxide fuel fabrication plant (MOX FFP), the independent spent fuel storage facility (ISFSF), the extended spent fuel storage system (ESFSF), the retrievable waste storage facility (RWSF), and waste repositories in three geologic media for two fuel cycles.

In the case of two systems, the FRP and the MOX FFP, waste management represents only a part of the total facility. The manpower required to construct and operate the production components of these two systems will be analyzed separately. It will then be possible to integrate this projection with the respective waste management reference alternative to determine the impact of waste management both alone and relative to the total impact attributable to the whole facility.

Each of the major systems is assumed to have a construction period lasting a maximum of 5 years (1980 to 1984) and an operational life expectancy prior to decommissioning ranging from 25 years for the waste repository to 35 years for the ISFSFs. The manpower requirements associated with decommissioning are typically smaller than those for operation; given uncertainty in the timing, nature, and duration of the decommissioning phase, their requirements are not treated specifically in this study.

Table C.1 depicts the size of the construction and operation employment for each reference waste management system and its component facilities. This table indicates how colocated facilities are aggregated to produce the employment inputs to the impact forecasting model. The employment estimates for 15 different waste management systems will be examined over each of the three reference sites, producing 45 separate forecasts of impacts (Tables C.6 through C.107).

C.4 THE FORECASTING MODEL

The demographic forecasting model uses a cohort-component projection methodology. This technique precisely forecasts the size and structure (age and sex) of the population. Such precision is a critical aspect of the model, since impacts are viewed as being responsive to changes in both of these demographic variables. The initial projected population serves both as a comparative baseline and as a source for a portion of the future project labor force. Employment demand associated with the project is met in part from the baseline population and in part from new in-migrants. The following description deals first with the construction phase of the project (1980 to 1984) and then with the operation phase (from 1985). A brief discussion of output from the model concludes this section.

Figure C.1 illustrates the principal components of the demographic forecasting model, and shows the interrelationships of demographic and economic characteristics of both the impact region and the site county. The determination of employment-generated in-migration and the projection of baseline and project populations over time, as outlined in Figure C.1, are discussed in the following sections.

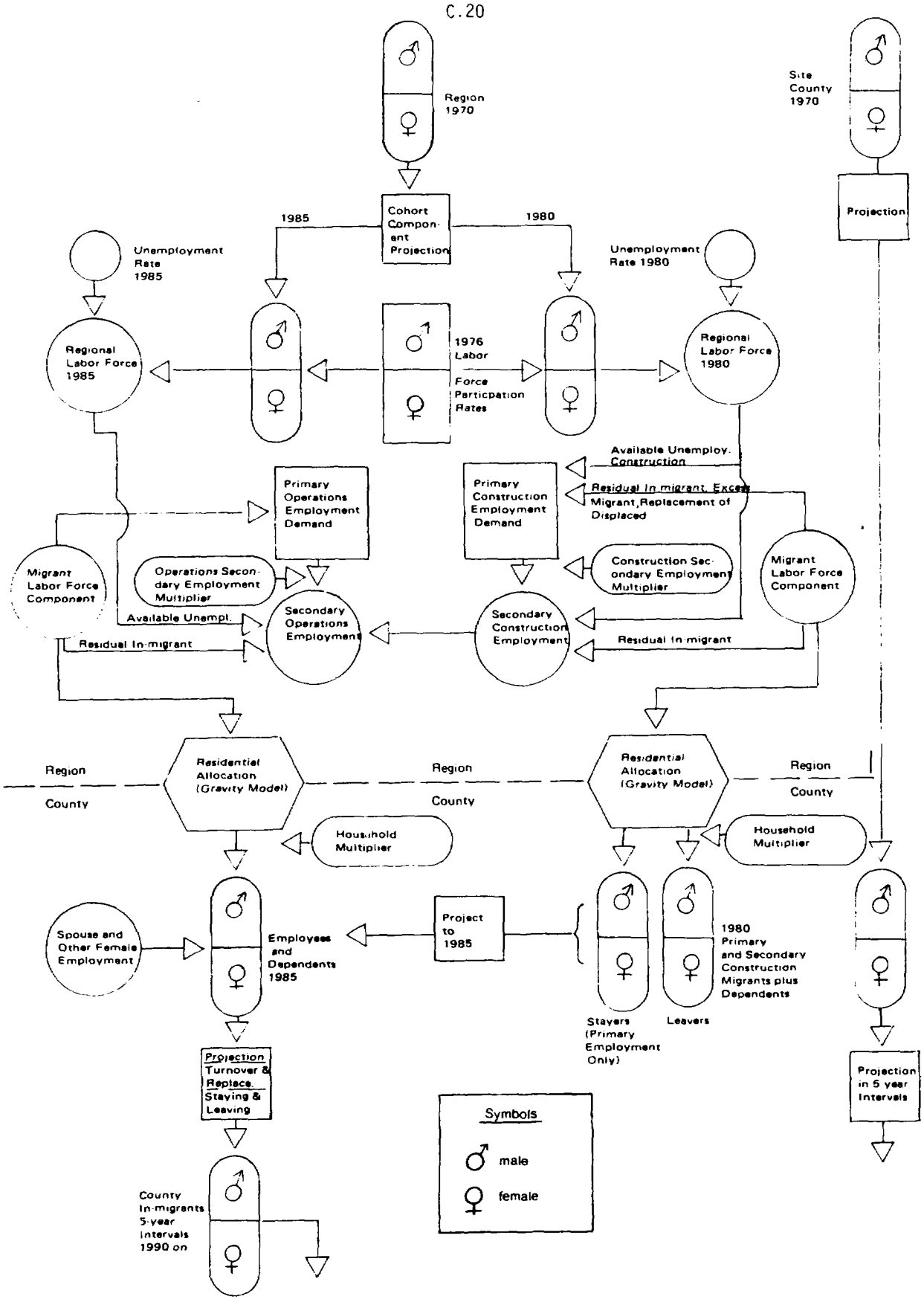

FIGURE C.1. Demographic Forecasting Model

C.4.1 Construction Phase

The model first determines the size of the regional population in 1980, which is the startup date for construction. These figures are projected from 1970 census data through the use of independent assumptions about the future course of the three components of population change: fertility, mortality, and net migration. Specifically, fertility is assumed to converge from the observed 1970 state rate to a replacement or zero-population-growth level in 1990; mortality is assumed to remain constant at the state level in 1970; and net migration is assumed to converge to zero in 1990.

The selection of a schedule of migration rates for the initial period, 1980 to 1984, is subject to substantially more error than is the case for rates of fertility and mortality. The selection of assumptions regarding future trends in net migration is even more difficult. Part of the difficulty is that net migration, being responsive to economic opportunities outside of the project under investigation, subsumes all future opportunity in the region, including other construction activity.

Migration rates for counties by age and sex are available for the period 1960 to 1970.(8) More recent rates are available from the U.S. Census for counties,(9) but these data do not provide sufficient detail on age and sex to construct a fully disaggregated model. The problem is further complicated by the fact that migration patterns at the county level have departed significantly from historical trends.(10)

A comparison of aggregate, county-level net migration rates across the two time periods illustrates the pronounced trend toward rural net in-migration. Table C.5 presents these rates as 5-year rates, assuming that net migration changed in a linear fashion between 1960 and 1970. To attribute an age/sex structure to the new rate pattern, the site county migration rate for 1970 to 1975 was matched with that of another county (or set of counties) that had the same rate in the 1960 to 1970 period. In addition, counties chosen were of the same relative rural/urban character in 1960 to 1970 as the site county was in the 1970 to 1975 period.

The age/sex composition of net migrants for the matching county (county group) was then adopted as the appropriate age/sex composition for the site county. Although the overall rate of net migration is allowed to change over time (convergence to zero by 1990 is the best guess in the absence of more information), the age/sex structure of the changing rates remains the same. That is, each age/sex specific rate changes by proportionately the same amount until all reach zero by 1990.

The size of the regional labor force is determined according to the labor force participation schedule observed throughout the United States in 1976. It is assumed that the project construction labor force will be filled sequentially as follows. The first source of labor for the project is unemployed construction workers in the region. The number of workers available from this source is estimated by multiplying the proportion of the region's 1970 labor force that was in construction by the total regional labor force. The number of unemployed is projected as the product of construction labor force and the regional unemployment rate in 1975, inflated by the ratio of national unemployment in construction to national

unemployment in all industries. Finally, an estimate of the proportion of unemployed construction workers available to work on the project is applied. The result indicates the component of the construction labor force that is made up of unemployed local construction workers. Reduction of local unemployment is usually interpreted as a positive impact.

If this component does not satisfy the project employment demand, the next source taken into account is the construction workers in the region who will leave other jobs to work on the project. It is necessary to estimate the proportion of these "displaced" workers who will be replaced by migrants, since it is only the migrant component that produces the impacts of concern.

If demand for the construction labor force is still unmet, then it is assumed that migrants from outside the region will fill the remaining jobs. In addition, an assumption is made regarding project-induced "excess migration"--migrants who come to the region seeking employment on the project but are unsuccessful in obtaining such jobs. The total primary construction employment migration is thus composed of new migrants who work on the project, migrant replacements for local workers who are displaced from other jobs, and excess migrants to the site county who are unable to find work on the project.

The second important migration component includes migrants responding to secondary employment opportunities arising from project construction. Secondary employment expansion is computed by applying a multiplier to project construction employment. The migratory component of the secondary labor force is also computed in a residual fashion. A fixed proportion of the region's unemployed labor force, less those who will be employed in the primary construction labor force, is assumed to be available for secondary employment. Residual demand is assumed to be met by migrants. It is also assumed that a portion of these migrants will be spouses of primary construction workers.

The model next allocates the primary and secondary migrant labor forces to the site county using a residential allocation model* that incorporates housing vacancy rates and

---

* The residential allocation model ("gravity" model) as applied in this study assumes that in-migrants will choose their residence in direct proportion to the population size of the county of residence and inversely proportional to the distance between the project site and the county of residence. The population size of county i is weighted by the proportion and condition of vacant housing units in the county. The form of the model is:

$$M_i = \frac{\left[\frac{P_i}{D_i^{\alpha}}\right] V_i Q_i}{\sum_i \left[\frac{P_i}{D_i^{\alpha}}\right] V_i Q_i}$$

where: M_i = proportion of in-migrants residing in county i

P_i = population size of county i

D_i = distance from site to center of county i

α = distance exponent (see Table C.4)

V_i = housing vacancy rate in county i

Q_i = proportion of housing in good condition

housing quality in communities in the site county as indicators of the residential attractiveness of the site county. This model also incorporates the assumption that secondary workers will locate closer to the site than will primary workers. Estimates of the number of dependents who will accompany primary and secondary workers are based, respectively, on construction worker studies[11] and U.S. national data.[9] To expand these numbers into age distributions of workers and dependents, age and sex schedules. which are derived from the same sources as the dependency multipliers and which indicate how many males and females are in each five-year age group from ages 0 to 4 through 85 and over, are then applied to the primary and secondary construction migrants.

The result is an age/sex profile of the migrant construction employment for 1980. These workers are assumed to remain on the job until 1985, at which time it is assumed that a portion enters secondary employment with the operation phase of the project, and a portion settles in the region without further involvement in the project. The proportion of primary construction workers remaining in the site county after 1985 is assumed to be a function of the level of net migration experienced in the county, a summary indicator of employment opportunities in the area, and the expressed preference of workers to remain in the area as reported in a recent survey.[11] Out-migrating construction workers are assumed to be accompanied by their dependents. The proportion of secondary construction workers that remains in the site county depends on the demand for secondary operation employment as discussed below.

C.4.2 Operation Phase

In 1985, the operation labor force is assumed to replace the construction labor force. Because of the specialized skill requirements for primary operation work, it is assumed that all of these workers migrate from outside of the region. In addition, it is assumed that all primary operation workers are males. Application of a modified gravity model (described above) determines how many workers are allocated to the site county. These workers are assumed to be accompanied by their spouses and other dependents and to reside in the site county at the outset of the operation phase in 1985.

The operation phase is expected to last from 25 to 35 years, depending on the type of facility. This relatively long period necessitates the consideration of social, economic, and demographic forces which will alter the composition of the operation employees over time. Specifically, the projection of the migrant labor force over the operation phase incorporates job turnover (from separation and retirement) and replacement in addition to the standard projection components of fertility, mortality, and migration. Additionally, the projection is complicated by the fact that workers leaving the project will also be likely to leave the site county. That is, some of those who no longer work on the project will settle in the area and some will leave.

In order to take turnover and replacement into account properly in the projection model, it is necessary to treat three components of the labor force separately. These include the primary workers, their spouses, and their other dependents. Turnover and replacement must be incorporated into the model for two reasons. First, it is untenable to

assume that all employees will stay on the job for 25 to 35 years, disregarding retirement and separation other than through death (which is taken into account through the mortality schedule used in this projection). Second, replacement of deceased, separated, and retired employees will have a significant impact on the age distribution of project workers over time. The reasons for treating these components of turnover separately are: 1) only employees of the project are subject to separation and retirement, 2) spouses are linked to the employees by an age-specific set of multipliers, and 3) other dependents of these employees are directly affected by primary labor force changes until age 20, at which time a portion of them is assumed to leave the county. (Other dependents aged 25 and above operate independently of primary employment, subject only to the prevailing forces of fertility, mortality, and migration that apply to the baseline population during this period.)

All primary operation employees are assumed to be male. The gravity model that determines the size of the site county migrant male employment produces only the total size of this component. In order to treat this population in the projection model, it is necessary to determine both its age distribution and the number and age/sex distribution of all associated dependents. The age distribution for the primary operation employment males was derived from the distribution of civilian labor force males who lived in a different house in a different county in March 1976 as compared with their residence in March 1975.[9] A smoothed age distribution in 5-year intervals from 15 to 65 years old was derived by fitting a curve to the cumulative age distribution as determined from the U.S. Census report,[9] which reported only five age groups in the labor force years.

The number of spouses accompanying this labor force is determined by multiplying age-specific multipliers times the male age distribution. These multipliers indicate the proportion of the male civilian labor force classified as intercounty movers who had a spouse present in their new residence by age of the male mover. The spouses obtained in this fashion assume the same age distribution as their husbands. This process assumes that both husbands and their wives are in the same 5-year age interval.*

The U.S. Census provides information pertaining to the number of persons per male family head by age of the male head who was classified as an intercounty mover. Although these data are not specific to members of the civilian labor force, it is assumed that the number of dependents for all males who are heads of households is distributed in a similar fashion. Dependents other than spouses include children of the primary male as well as other related individuals who live in the same household.

The age distribution for males is derived from the total numbers of intercounty male movers who are not in the labor force by age.[9] Since the ages considered run from 16 to 65+, an additional age and sex distribution for ages 1 through 14 was determined from U.S. Census data,[12, Table 5] which provides a complete age distribution for intercounty movers by sex. Five-year age intervals in the labor force years are determined by fitting

* In fact, wives are, on the average, about 3 years younger than their husbands but this distinction is not considered critical in the context of this 5-year projection model.

a curve to the cumulative age distribution determined for the abridged age categories as provided. Persons above age 65 are distributed in 5-year intervals through 85+ by taking the U.S. life table proportions of the stationary population at age x who survive to age x+5 and multiplying by the number of persons at age x. The female age distribution was derived in a similar fashion, except that the female age distribution for spouses in the labor force years was composed of intercounty female movers not in the labor force and not classified as married, spouse present.

These computations provide a complete component profile of the in-migrating primary operation employees, their spouses, and their other dependents in 1985. In addition to the primary operation employment and its components, the model projects the secondary employment effects generated by the operation phase of the project. An empirically derived secondary employment multiplier is applied to the primary operation employment. Secondary operation employment is assumed to be met sequentially, first by the nonmigrant component of the available secondary construction employment in the region. Secondary construction employment is assumed to be associated with primary construction employment. This association is maintained for that portion of primary construction employment remaining in the region after termination of the construction phase in 1985. Only those secondary workers who have become "disenfranchised" by the departure of a portion of the primary employees are considered to be available for secondary operation employment. Other unemployed workers in the region are then considered for any remaining positions.

Computation of the unemployed labor force in the region in 1985 involves application of the unemployment rate estimated for 1985 to the projected 1985 baseline labor force. If this source satisfies the demand, then a portion of migrant secondary construction employment is projected to remain in the region. This figure is calculated in a fashion similar to primary construction employment that remains; however, a different assumption regarding the proportion staying is used, based on a survey of nonconstruction workers in an area experiencing construction activity.[11]

If the demand is still not satisfied, then migrant secondary construction employment is drawn upon. Any residual unemployed migrant secondary construction employment is also subject to the above assumption about the proportion remaining in the region. Finally, if new migrants are needed to satisfy the remaining demand for secondary operation employment, the model assumes that they will be added to the migrant secondary construction employment in the region in 1985.

The primary and secondary operation employment are next distributed to the site county according to a gravity model specifying residential location. Members of the operation work force are assumed to reside closer to the site than are construction workers, because of the longer time they can expect to be on the job. Although the primary operation employment is assumed to be all male, the model allows for a portion of the secondary operation employment to be composed of females. The female component is first filled by spouses of both primary and secondary operation workers. Their participation rate is the same as the overall female labor force participation rate. That is, if 45% of the secondary operation

employment demand is met by females, then 45% of the spouses of primary and secondary male employees will be considered first for those positions. If more female positions remain, then new in-migrating females are assumed to fill them. These additional female labor force members are assumed to be unmarried initially. This assumption substantially simplifies the model, since it is assumed that additional females are not accompanied by dependents. These women will, however, be subjected to the same rates of fertility and mortality as the spouses of male employees.

To obtain an age distribution for single female employees, data on never-married females of the civilian labor force (who are intercounty movers) is multiplied by the difference between female employment demand and the number of participant spouses. Labor force participation for these women is concentrated in younger ages compared with the participation of spouses, whose childbearing competes with labor force participation. The incorporation of female labor force participation by spouses reduces the effective in-migrating population, since some families account for two members of the labor force.

The model next projects the resulting population forward in 5-year intervals, taking into account fertility, mortality, job turnover, retirement, and employment replacement. From this point on, the primary and secondary migrant employees and their dependents are treated identically in the projection routine. Each of the three components (employees, spouses, and dependents) is survived forward 5 years. The baseline fertility schedule is applied to spouses and female dependents; births during the 5-year projection cycle are survived forward; surviving births to both components are distributed by sex using the baseline sex ratio at birth; these births are added to the dependent age/sex distribution in the 0 to 4 age categories. An age-specific schedule of job turnover is applied to the employees and their spouses. This schedule assumes that higher rates of job separation occur at younger ages and decrease until retirement age, which is set at age 65. At that time, all project employees are assumed to retire. Spouses continue throughout the projection to be associated with their employed husbands in the same proportions indicated by the distribution of multipliers by age. Although this assumption fails to take differential mortality by sex into account, the resulting errors are small. For employees and their spouses two new age distributions are produced. These involve employees and spouses who do not turn over during the projection cycle and those that do. The dependents are more complicated to take into account, since it is not possible to derive a one-to-one correspondence between employees and their dependents by age as the projection moves forward. The best approximation of the dependent turnover age/sex distribution can be obtained by multiplying the dependent age distribution by the proportion of the male employment turning over in that period. Those who remain on the job are obtained as a residual.

Given the turnover/stayer split for each of the three components, the next step is to determine what portion of each of the turnover components remains in the site county and what portion leaves, since only those migrants who stay will continue to exert impacts locally. A factor based on the estimated level of net migration in the region--a proxy measure of economic opportunity in the area--is multiplied by each of the turnover components to determine the portion of each component that will remain in the site county.

Dependent children are treated differently at this point. Upon reaching age 20, a fixed proportion of dependents in the 20 to 24 age category is assumed to emigrate, independent of parental residential mobility. Employees who leave the job during the 5-year projection period due to separation or retirement are added to employees who die during the period. These persons are assumed to be replaced by new in-migrant workers with the same age and dependency characteristics as the initial 1985 employment. The replacement male employment is multiplied by the age-specific spouse multiplier schedule to obtain the new spouse age distribution and by the age-specific dependent multiplier schedule to obtain the number of new dependents. These dependents are distributed by age and sex according to the original age-and-sex-specific proportional age distribution.

It is now possible to define the total number of migrants associated with the project in 1985, or at the end of any future projection cycle running from year t to year t + 5, in terms of the three components of employment: spouses and dependents, the subsets of each component representing turnover stayers and nonturnovers, and turnover replacements. Summing across these groups provides the total migrant age and sex distribution at year t + 5.

The subsequent projection cycles begin repeating at the point at which each component is subjected to the survival schedules. The only difference is that the turnover stayers are no longer subjected to turnover and replacement. They are, however, subject to fertility, mortality, and net migration rates for the period in question. Nonturnovers and replacements continue to be subject to these schedules, as well as the specified schedules of turnover, leaving and staying, and replacement.

C.4.3 Model Output

Output from the model provides two projections for each combination of reference site and facility as shown in Tables C.6 through C.95. The first projection provides a most probable estimate (expected impact) of future employment associated with the project and is based on the most likely value for each variable component in the model, based on prior research and best judgment. The second projection incorporates a set of extreme but plausible assumptions that serve to maximize the forecast of the project-related in-migrant population (maximum impact). The less confidence that can be placed in a given assumption, the wider will be the range between the expected and the maximum impact estimate; this range will increase with the length of the projection period, reflecting diminishing confidence over time in the result. Some estimates are considered sufficiently accurate that they will remain unchanged (e.g., mortality). Others incorporate wide variation (e.g., distance exponent in the gravity model). The true value of the projected outcome is assumed to fall within these limits, though this method clearly is biased toward the high end of impact estimates. This is considered appropriate since policy intervention must be designed to deal with maximum impacts. The accuracy of the projected output may also be influenced by unforeseen changes in volatile component relationships, policy accommodations to estimated or experienced impacts, and by misspecification of component relationships and assumptions.

TABLE C.6. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, FRP Production Facility

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1630	1630	1000	1000	1000	1000	1000	1000
BASELINE	44243		46133		50382		54613	
PROJECT IN-MIGRATION (CUMULATIVE)	5129	7631	5879	12146	7006	14600	7675	15817
BASELINE PLUS PROJECT	49372	51874	52012	58279	57388	64982	62288	70429
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	10.4	14.7	11.3	20.8	12.2	22.5	12.3	22.5
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		34.0	
PROJECT IN-MIGRATION	23.5	23.5	22.0	21.9	32.7	32.4	38.8	38.7
BASELINE PLUS PROJECT	26.4	26.2	27.4	26.7	31.4	31.5	34.7	35.1
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		46.8	
PROJECT IN-MIGRATION	37.0	37.9	57.2	54.7	31.3	33.5	26.2	26.0
BASELINE PLUS PROJECT	58.5	57.4	65.9	64.3	50.2	48.3	43.9	41.6
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.9	
PROJECT IN-MIGRATION	101.6	106.9	113.2	106.2	116.4	112.0	117.1	113.9
BASELINE PLUS PROJECT	94.7	95.8	95.9	96.3	96.9	98.1	98.3	99.7

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.60		.84		.59		.54	
PROJECT IN-MIGRATION	1.15	2.08	2.73	9.30	1.17	1.23	.61	.53
BASELINE PLUS PROJECT	.66	.87	1.04	2.33	.66	.73	.55	.54

TABLE C.7. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, FRP Production Facility

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	4.9	7.3	5.6	11.7	6.7	14.0	7.4	15.2
NURSES	13.2	19.7	15.2	31.3	18.1	37.7	19.8	40.8
DENTISTS	1.6	2.4	1.8	3.8	2.2	4.5	2.4	4.9
HOSPITAL BEDS	17.0	25.3	19.5	40.3	23.3	48.5	25.5	52.5
NURSING CARE BEDS	5.1	7.3	8.8	17.6	15.2	30.6	23.7	47.7
EDUCATION								
TEACHERS: K-8	33.5	50.7	53.6	107.6	45.4	101.8	34.7	71.4
TEACHERS: 9-12	31.7	46.3	39.4	86.3	43.4	87.0	29.4	61.5
CLASSROOM SPACE: (SQUARE METERS 9-12)	8341.5	12193.6	10359.0	22708.1	11414.5	22912.1	7732.9	16185.0
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	2912.2	4332.4	3338.0	6895.9	3977.9	8289.3	4357.7	8980.0
SOLID WASTE (VEHICLES)	.6	.8	.6	1.3	.8	1.6	.8	1.7
SOLID WASTE (PERSONNEL)	1.7	2.5	1.9	4.0	2.3	4.8	2.5	5.2
LIQUID WASTE (CUBIC METERS/DAY)	1941.5	2888.3	2225.3	4597.3	2651.9	5526.2	2905.1	5986.7
FIRE AND POLICE								
FIREMEN	3.4	5.1	3.9	8.1	4.7	9.8	5.1	10.6
POLICEMEN	10.3	15.3	11.8	24.3	14.0	29.2	15.4	31.6
RECREATION								
PLAYGROUNDS (HECTARES)	2.0	3.0	2.3	4.8	2.8	5.7	3.0	6.2
NEIGHBORHOOD PARKS (")	1.7	2.6	2.0	4.1	2.4	4.9	2.6	5.3
COMMUNITY PARKS (")	2.6	3.8	2.9	6.1	3.5	7.3	3.8	7.9
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	299.6	445.6	343.4	709.3	409.2	852.7	448.2	923.7
GOVERNMENT								
ADMINISTRATIVE STAFF	4.6	6.9	5.3	10.9	6.3	13.1	6.9	14.2

TABLE C.8. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, FRP Production Facility

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1630	1630	1000	1000	1000	1000	1000	1000
BASELINE	21252		23102		26273		28604	
PROJECT IN-MIGRATION (CUMULATIVE)	310	3948	687	6947	802	8312	900	9030
BASELINE PLUS PROJECT	21561	25200	23789	30050	27075	34585	29504	37634
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.4	15.7	2.9	23.1	3.0	24.0	3.1	24.0
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		33.2	
PROJECT IN-MIGRATION	23.1	23.5	22.6	22.1	33.1	32.3	38.2	38.2
BASELINE PLUS PROJECT	25.5	24.9	26.7	25.5	30.3	30.9	33.4	34.5
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		45.6	
PROJECT IN-MIGRATION	43.6	36.7	60.5	54.3	26.7	32.2	27.4	25.4
BASELINE PLUS PROJECT	59.6	55.7	60.7	59.1	48.9	45.1	45.0	40.2
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	99.8	132.6	107.5	127.0	112.3	121.9	113.2
BASELINE PLUS PROJECT	94.1	94.3	95.0	97.0	95.9	99.0	96.2	99.5

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.85		1.67		.86		.57	
PROJECT IN-MIGRATION	3.05	2.36	15.91	11.30	1.04	1.20	.77	.55
BASELINE PLUS PROJECT	.90	1.15	1.97	3.52	.86	.94	.57	.56

TABLE C.9. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, FRP Production Facility

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.3	3.4	.6	6.0	.7	7.1	.8	7.8
NURSES	.9	11.6	2.0	20.4	2.4	24.4	2.6	26.5
DENTISTS	.1	1.1	.2	1.9	.2	2.2	.2	2.4
HOSPITAL BEDS	1.2	14.7	2.6	25.9	3.0	31.0	3.4	33.7
NURSING CARE BEDS	.1	3.7	.9	9.2	1.6	15.3	2.5	23.5
EDUCATION								
TEACHERS: K-8	2.2	25.7	6.6	61.5	4.4	57.0	4.3	41.5
TEACHERS: 9-12	1.9	24.5	3.8	48.5	5.2	49.9	3.4	35.5
CLASSROOM SPACE: (SQUARE METERS 9-12)	507.0	6458.7	1001.9	12766.5	1369.2	13133.0	897.4	9345.3
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	175.9	2241.6	389.8	3944.4	455.5	4719.4	511.2	5126.9
SOLID WASTE (VEHICLES)	.0	.4	.1	.8	.1	.9	.1	1.0
SOLID WASTE (PERSONNEL)	.1	1.3	.2	2.3	.3	2.7	.3	3.0
LIQUID WASTE (CUBIC METERS/DAY)	117.3	1494.4	259.9	2629.6	303.7	3146.3	340.8	3418.0
FIRE AND POLICE								
FIREMEN	.2	2.6	.5	4.7	.5	5.6	.6	6.1
POLICEMEN	.6	7.9	1.4	13.9	1.6	16.6	1.8	18.1
RECREATION								
PLAYGROUNDS (HECTARES)	.1	1.6	.3	2.7	.3	3.3	.4	3.5
NEIGHBORHOOD PARKS (")	.1	1.3	.2	2.3	.3	2.8	.3	3.0
COMMUNITY PARKS (")	.2	2.0	.3	3.5	.4	4.1	.4	4.5
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	14.4	183.2	31.9	322.4	37.2	385.7	41.8	419.0
GOVERNMENT								
ADMINISTRATIVE STAFF	.3	3.6	.6	6.3	.7	7.5	.8	8.1

TABLE C.10. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, FRP Production Facility

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1630	1630	1000	1000	1000	1000	1000	1000
BASELINE	60376		72697		89545		98006	
PROJECT IN-MIGRATION (CUMULATIVE)	130	1395	1586	3875	1857	4560	2093	5140
BASELINE PLUS PROJECT	60506	61771	74284	76572	91401	94104	100099	103146
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.2	2.3	2.1	5.1	2.0	4.8	2.1	5.0
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.3	22.2	23.0	33.4	33.5	39.2	38.8
BASELINE PLUS PROJECT	27.8	27.7	29.2	29.0	35.1	35.1	36.2	36.3
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		48.2	
PROJECT IN-MIGRATION	43.6	42.8	62.6	58.9	27.2	28.6	27.3	30.0
BASELINE PLUS PROJECT	51.2	51.0	47.7	48.0	42.6	42.2	47.7	47.2
SEX RATIO								
BASELINE	99.4		99.3		98.9		96.6	
PROJECT IN-MIGRATION	157.7	145.4	130.9	134.1	127.7	128.8	125.0	124.0
BASELINE PLUS PROJECT	99.5	100.2	99.8	100.8	99.4	100.2	97.1	97.8

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.38		3.71		1.39		.60	
PROJECT IN-MIGRATION	7.93	3.73	50.00	20.44	1.05	1.09	.80	.80
BASELINE PLUS PROJECT	1.44	1.46	4.10	4.30	1.38	1.37	.61	.61

TABLE C.11. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, FRP Production Facility

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.2	1.9	2.1	5.2	2.5	6.1	2.8	6.8
NURSES	.6	6.9	7.9	19.2	9.2	22.6	10.4	25.4
DENTISTS	.1	.8	.9	2.2	1.1	2.6	1.2	2.9
HOSPITAL BEDS	.8	8.2	9.3	22.8	10.9	26.8	12.3	30.2
NURSING CARE BEDS	.2	2.2	6.3	13.5	11.2	26.1	17.7	45.2
EDUCATION								
TEACHERS: K-8	.9	10.0	15.4	36.7	10.1	25.4	9.5	24.8
TEACHERS: 9-12	.8	8.3	9.1	20.8	12.2	27.8	7.6	18.6
CLASSROOM SPACE: (SQUARE METERS 9-12)	213.1	2185.9	2399.5	5485.6	3202.0	7325.2	2011.1	4897.5
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	73.9	791.9	900.6	2199.9	1054.2	2588.8	1188.4	2918.3
SOLID WASTE (VEHICLES)	.0	.2	.2	.4	.2	.5	.2	.6
SOLID WASTE (PERSONNEL)	.0	.5	.5	1.3	.6	1.5	.7	1.7
LIQUID WASTE (CUBIC METERS/DAY)	49.3	527.9	600.4	1466.6	702.8	1725.8	792.3	1945.5
FIRE AND POLICE								
FIREMEN	.1	.9	1.1	2.6	1.2	3.1	1.4	3.4
POLICEMEN	.3	2.8	3.2	7.7	3.7	9.1	4.2	10.3
RECREATION								
PLAYGROUNDS (HECTARES)	.1	.5	.6	1.5	.7	1.8	.8	2.0
NEIGHBORHOOD PARKS (")	.0	.5	.5	1.3	.6	1.5	.7	1.7
COMMUNITY PARKS (")	.1	.7	.8	1.9	.9	2.3	1.0	2.6
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	5.6	60.0	68.2	166.6	79.8	196.1	90.0	221.0
GOVERNMENT								
ADMINISTRATIVE STAFF	.1	1.3	1.4	3.5	1.7	4.1	1.9	4.6

TABLE C.12. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, FRP Waste Management Reference System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1195	1195	275	275	275	275	275	275
BASELINE	44243		46133		50382		54613	
PROJECT IN-MIGRATION (CUMULATIVE)	3654	5520	2382	4039	2859	4864	3106	5261
BASELINE PLUS PROJECT	47897	49763	48515	50172	53241	55246	57718	59873
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	7.6	11.1	4.9	8.1	5.4	8.8	5.4	8.8
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		34.0	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	32.5	32.4	38.7	38.6
BASELINE PLUS PROJECT	26.6	26.4	27.9	27.6	31.2	31.2	34.3	34.4
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		46.8	
PROJECT IN-MIGRATION	37.0	38.0	54.8	53.7	33.2	34.1	26.5	26.5
BASELINE PLUS PROJECT	59.2	58.4	66.4	65.9	52.1	51.4	45.6	44.8
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.9	
PROJECT IN-MIGRATION	101.9	107.3	108.3	105.7	113.2	111.6	114.5	113.3
BASELINE PLUS PROJECT	94.5	95.4	94.5	94.8	95.3	95.8	96.9	97.3

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.60		.84		.59		.54	
PROJECT IN-MIGRATION	-.46	-.14	-8.55	-6.25	1.22	1.24	.55	.52
BASELINE PLUS PROJECT	.53	.53	.26	.16	.62	.64	.54	.54

TABLE C.13. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, FRP Waste Management Reference System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	3.5	5.3	2.3	3.9	2.7	4.7	3.0	5.1
NURSES	9.4	14.2	6.1	10.4	7.4	12.6	8.0	13.6
DENTISTS	1.1	1.7	.7	1.3	.9	1.5	1.0	1.6
HOSPITAL BEDS	12.1	18.3	7.9	13.4	9.5	16.1	10.3	17.5
NURSING CARE BEDS	3.6	5.2	3.4	5.7	6.0	10.0	9.5	15.9
EDUCATION								
TEACHERS: K-8	23.9	36.7	21.2	35.5	19.7	34.4	14.2	24.0
TEACHERS: 9-12	22.6	33.5	16.5	28.6	17.0	28.5	12.0	20.5
CLASSROOM SPACE: (SQUARE METERS 9-12)	5935.9	8810.6	4350.2	7535.7	4479.6	7494.5	3162.9	5389.7
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	2074.5	3134.0	1352.6	2293.2	1623.2	2761.7	1763.2	2986.7
SOLID WASTE (VEHICLES)	.4	.6	.3	.4	.3	.5	.3	.6
SOLID WASTE (PERSONNEL)	1.2	1.8	.8	1.3	.9	1.6	1.0	1.7
LIQUID WASTE (CUBIC METERS/DAY)	1383.0	2089.4	901.7	1528.8	1082.2	1841.2	1175.5	1991.2
FIRE AND POLICE								
FIREMEN	2.4	3.7	1.6	2.7	1.9	3.3	2.1	3.5
POLICEMEN	7.3	11.0	4.8	8.1	5.7	9.7	6.2	10.5
RECREATION								
PLAYGROUNDS (HECTARES)	1.4	2.2	.9	1.6	1.1	1.9	1.2	2.1
NEIGHBORHOOD PARKS (")	1.2	1.9	.8	1.4	1.0	1.6	1.0	1.8
COMMUNITY PARKS (")	1.8	2.7	1.2	2.0	1.4	2.4	1.5	2.6
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	213.4	322.4	139.1	235.9	167.0	284.1	181.4	307.2
GOVERNMENT								
ADMINISTRATIVE STAFF	3.3	5.0	2.1	3.6	2.6	4.4	2.8	4.7

TABLE C.14. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, FRP Waste Management Reference System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1195	1195	275	275	275	275	275	275
BASELINE	21252		23102		26273		28604	
PROJECT IN-MIGRATION (CUMULATIVE)	192	2615	226	2152	264	2572	295	2794
BASELINE PLUS PROJECT	21444	23866	23328	25254	26537	28845	28899	31398
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.9	11.0	1.0	8.5	1.0	8.9	1.0	8.9
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		33.2	
PROJECT IN-MIGRATION	23.1	23.5	23.2	22.4	33.1	32.3	37.8	38.0
BASELINE PLUS PROJECT	25.5	25.1	26.8	26.4	30.2	30.4	33.2	33.7
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		45.6	
PROJECT IN-MIGRATION	43.6	37.1	57.5	53.2	28.1	32.6	29.6	26.7
BASELINE PLUS PROJECT	59.7	57.0	60.6	60.0	49.5	48.0	45.4	43.7
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	102.0	135.2	110.2	127.6	113.5	120.7	113.2
BASELINE PLUS PROJECT	93.4	94.3	94.4	95.4	95.4	96.6	95.8	97.0

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.85		1.67		.86		.57	
PROJECT IN-MIGRATION	1.23	.19	3.22	-3.90	1.05	1.19	.74	.55
BASELINE PLUS PROJECT	.85	.78	1.68	1.13	.86	.89	.57	.57

TABLE C.15. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, FRP Waste Management Reference System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.2	2.2	.2	1.9	.2	2.2	.3	2.4
NURSES	.6	7.7	.7	6.3	.8	7.6	.9	8.2
DENTISTS	.1	.7	.1	.6	.1	.7	.1	.8
HOSPITAL BEDS	.7	9.8	.8	8.0	1.0	9.6	1.1	10.4
NURSING CARE BEDS	.1	2.4	.3	2.7	.5	4.6	.9	7.4
EDUCATION								
TEACHERS: K-8	1.4	17.1	2.1	19.0	1.5	17.6	1.5	13.2
TEACHERS: 9-12	1.2	16.1	1.2	14.5	1.6	15.0	1.1	11.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	314.4	4245.9	311.4	3807.8	424.5	3954.6	294.0	2883.3
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	109.1	1484.5	128.2	1221.6	149.9	1460.2	167.6	1586.4
SOLID WASTE (VEHICLES)	.0	.3	.0	.2	.0	.3	.0	.3
SOLID WASTE (PERSONNEL)	.1	.9	.1	.7	.1	.8	.1	.9
LIQUID WASTE (CUBIC METERS/DAY)	72.7	989.7	85.4	814.4	100.0	973.5	111.7	1057.6
FIRE AND POLICE								
FIREMEN	.1	1.8	.2	1.4	.2	1.7	.2	1.9
POLICEMEN	.4	5.2	.5	4.3	.5	5.1	.6	5.6
RECREATION								
PLAYGROUNDS (HECTARES)	.1	1.0	.1	.8	.1	1.0	.1	1.1
NEIGHBORHOOD PARKS (")	.1	.9	.1	.7	.1	.9	.1	.9
COMMUNITY PARKS (")	.1	1.3	.1	1.1	.1	1.3	.1	1.4
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	8.9	121.3	10.5	99.8	12.3	119.3	13.7	129.7
GOVERNMENT								
ADMINISTRATIVE STAFF	.2	2.4	.2	1.9	.2	2.3	.3	2.5

TABLE C.16. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, FRP Waste Management Reference System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1195	1195	275	275	275	275	275	275
BASELINE	60376		72697		89545		98006	
PROJECT IN-MIGRATION (CUMULATIVE)	35	781	436	1330	510	1576	575	1777
BASELINE PLUS PROJECT	60411	61157	73133	74027	90054	91121	98581	99783
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.1	1.3	.6	1.8	.6	1.7	.6	1.8
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.1	22.2	24.0	33.4	33.5	39.2	38.3
BASELINE PLUS PROJECT	27.8	27.7	29.3	29.2	35.1	35.1	36.2	36.2
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		48.2	
PROJECT IN-MIGRATION	43.6	43.6	62.6	54.1	27.2	30.5	27.2	33.9
BASELINE PLUS PROJECT	51.2	51.1	47.5	47.5	42.8	42.7	48.1	47.9
SEX RATIO								
BASELINE	99.4		99.3		98.9		96.6	
PROJECT IN-MIGRATION	157.7	157.7	130.8	138.6	127.7	130.3	125.0	122.6
BASELINE PLUS PROJECT	99.4	99.9	99.4	99.8	99.1	99.4	96.7	97.0

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.38		3.71		1.39		.60	
PROJECT IN-MIGRATION	8.00	2.35	50.44	10.64	1.05	1.13	.80	.80
BASELINE PLUS PROJECT	1.40	1.40	3.82	3.82	1.39	1.38	.60	.61

TABLE C.17. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, FRP Waste Management Reference System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.0	1.0	.6	1.8	.7	2.1	.8	2.4
NURSES	.2	3.9	2.2	6.6	2.5	7.8	2.8	8.8
DENTISTS	.0	.4	.2	.8	.3	.9	.3	1.0
HOSPITAL BEDS	.2	4.6	2.6	7.8	3.0	9.3	3.4	10.4
NURSING CARE BEDS	.0	.9	1.7	3.8	3.1	8.4	4.9	16.4
EDUCATION								
TEACHERS: K-8	.3	5.6	4.2	12.2	2.8	9.1	2.6	9.2
TEACHERS: 9-12	.2	4.9	2.5	6.5	3.3	8.7	2.1	6.4
CLASSROOM SPACE: (SQUARE METERS 9-12)	57.2	1278.6	659.2	1709.6	879.7	2285.4	552.3	1674.1
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	19.9	443.6	247.3	755.1	289.5	894.9	326.3	1008.8
SOLID WASTE (VEHICLES)	.0	.1	.0	.1	.1	.2	.1	.2
SOLID WASTE (PERSONNEL)	.0	.3	.1	.4	.2	.5	.2	.6
LIQUID WASTE (CUBIC METERS/DAY)	13.2	295.7	164.9	503.4	193.0	596.6	217.5	672.5
FIRE AND POLICE								
FIREMEN	.0	.5	.3	.9	.3	1.1	.4	1.2
POLICEMEN	.1	1.6	.9	2.7	1.0	3.2	1.1	3.6
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.3	.2	.5	.2	.6	.2	.7
NEIGHBORHOOD PARKS (")	.0	.3	.1	.4	.2	.5	.2	.6
COMMUNITY PARKS (")	.0	.4	.2	.7	.3	.8	.3	.9
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	1.5	33.6	18.7	57.2	21.9	67.8	24.7	76.4
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.7	.4	1.2	.5	1.4	.5	1.6

TABLE C.18. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, FRP Combined System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	2825	2825	1275	1275	1275	1275	1275	1275
BASELINE	44243		46133		50382		54613	
PROJECT IN-MIGRATION (CUMULATIVE)	9183	13429	9110	16742	10901	20144	11880	21799
BASELINE PLUS PROJECT	53426	57672	55243	62874	61282	70526	66493	76411
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	17.2	23.3	16.5	26.6	17.8	28.6	17.9	28.5
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		34.0	
PROJECT IN-MIGRATION	23.5	23.5	22.0	21.9	32.6	32.4	38.8	38.7
BASELINE PLUS PROJECT	26.0	25.7	27.0	26.2	31.5	31.6	34.9	35.4
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		46.8	
PROJECT IN-MIGRATION	36.9	37.8	55.9	54.3	32.3	33.7	26.2	26.1
BASELINE PLUS PROJECT	56.6	55.2	65.1	63.5	49.1	47.1	42.7	40.3
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.9	
PROJECT IN-MIGRATION	101.2	106.5	110.0	105.7	114.4	111.6	115.6	113.6
BASELINE PLUS PROJECT	95.2	96.8	96.4	96.9	97.7	99.0	99.2	100.7

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.60		.84		.59		.54	
PROJECT IN-MIGRATION	.74	1.38	-.16	4.41	1.20	1.23	.57	.53
BASELINE PLUS PROJECT	.63	.80	.67	1.73	.69	.77	.54	.53

TABLE C.19. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, FRP Combined System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	8.8	12.9	8.7	16.1	10.5	19.3	11.4	20.9
NURSES	23.7	34.6	23.5	43.2	28.1	52.0	30.7	56.2
DENTISTS	2.8	4.2	2.8	5.2	3.4	6.2	3.7	6.8
HOSPITAL BEDS	30.5	44.6	30.2	55.6	36.2	66.9	39.4	72.4
NURSING CARE BEDS	9.1	12.8	13.3	24.1	23.3	42.0	36.3	65.6
EDUCATION								
TEACHERS: K-8	59.9	89.1	81.9	147.7	73.2	141.5	53.8	98.6
TEACHERS: 9-12	56.8	81.6	62.5	119.3	66.2	119.3	45.8	84.9
CLASSROOM SPACE: (SQUARE METERS 9-12)	14950.1	21487.0	16463.1	31397.7	17413.8	31404.8	12052.4	22333.9
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	5213.6	7624.6	5172.0	9505.0	6188.8	11436.7	6745.0	12376.1
SOLID WASTE (VEHICLES)	1.0	1.5	1.0	1.8	1.2	2.2	1.3	2.4
SOLID WASTE (PERSONNEL)	3.0	4.4	3.0	5.5	3.6	6.6	3.9	7.2
LIQUID WASTE (CUBIC METERS/DAY)	3475.7	5083.0	3448.0	6336.7	4125.9	7624.5	4496.6	8250.8
FIRE AND POLICE								
FIREMEN	6.2	9.0	6.1	11.2	7.3	13.5	8.0	14.6
POLICEMEN	18.4	26.9	18.2	33.5	21.8	40.3	23.8	43.6
RECREATION								
PLAYGROUNDS (HECTARES)	3.6	5.3	3.6	6.6	4.3	7.9	4.7	8.6
NEIGHBORHOOD PARKS (")	3.1	4.5	3.1	5.6	3.7	6.8	4.0	7.3
COMMUNITY PARKS (")	4.6	6.7	4.5	8.3	5.4	10.0	5.9	10.9
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	536.3	784.3	532.0	977.7	636.6	1176.4	693.8	1273.0
GOVERNMENT								
ADMINISTRATIVE STAFF	8.3	12.1	8.2	15.1	9.8	18.1	10.7	19.6

TABLE C.20. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, FRP Combined System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	2825	2825	1275	1275	1275	1275	1275	1275
BASELINE	21252		23102		26273		28604	
PROJECT IN-MIGRATION (CUMULATIVE)	633	7611	958	10704	1120	12832	1254	13898
BASELINE PLUS PROJECT	21885	28863	24060	33806	27393	39105	29858	42502
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	2.9	26.4	4.0	31.7	4.1	32.8	4.2	32.7
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		33.2	
PROJECT IN-MIGRATION	23.1	23.5	22.9	22.1	33.1	32.3	38.0	38.1
BASELINE PLUS PROJECT	25.4	24.6	26.7	25.0	30.3	31.1	33.4	34.9
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		45.6	
PROJECT IN-MIGRATION	43.6	36.3	58.9	53.5	27.5	32.8	28.5	25.5
BASELINE PLUS PROJECT	59.3	52.9	60.6	58.3	48.7	43.7	44.8	38.4
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	97.7	133.9	106.0	127.3	111.3	121.3	112.4
BASELINE PLUS PROJECT	94.8	94.5	95.4	97.7	96.3	100.2	96.5	100.7

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.85		1.67		.86		.57	
PROJECT IN-MIGRATION	1.95	1.72	8.27	6.82	1.04	1.21	.75	.53
BASELINE PLUS PROJECT	.89	1.11	1.90	3.16	.86	.97	.57	.56

TABLE C.21. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, FRP Combined System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.5	6.5	.8	9.2	1.0	11.0	1.1	12.0
NURSES	1.9	22.4	2.8	31.5	3.3	37.7	3.7	40.9
DENTISTS	.2	2.1	.3	2.9	.3	3.5	.3	3.8
HOSPITAL BEDS	2.4	28.4	3.6	39.9	4.2	47.9	4.7	51.8
NURSING CARE BEDS	.3	7.3	1.2	14.0	2.2	23.3	3.6	36.1
EDUCATION								
TEACHERS: K-8	4.6	49.1	9.1	93.9	6.2	89.6	6.2	64.0
TEACHERS: 9-12	3.9	47.6	5.2	75.5	7.0	76.0	4.7	54.8
CLASSROOM SPACE: (SQUARE METERS 9-12)	1036.3	12537.4	1357.3	19881.3	1852.7	19997.1	1249.3	14423.8
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	359.6	4321.4	543.7	6076.9	635.8	7285.5	711.9	7890.6
SOLID WASTE (VEHICLES)	.1	.8	.1	1.2	.1	1.4	.1	1.5
SOLID WASTE (PERSONNEL)	.2	2.5	.3	3.5	.4	4.2	.4	4.6
LIQUID WASTE (CUBIC METERS/DAY)	239.7	2880.9	362.5	4051.3	423.8	4857.0	474.6	5260.4
FIRE AND POLICE								
FIREMEN	.4	5.1	.6	7.2	.8	8.6	.8	9.3
POLICEMEN	1.3	15.2	1.9	21.4	2.2	25.7	2.5	27.8
RECREATION								
PLAYGROUNDS (HECTARES)	.2	3.0	.4	4.2	.4	5.0	.5	5.5
NEIGHBORHOOD PARKS (")	.2	2.6	.3	3.6	.4	4.3	.4	4.7
COMMUNITY PARKS (")	.3	3.8	.5	5.3	.6	6.4	.6	6.9
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	29.4	353.2	44.4	496.6	52.0	595.4	58.2	644.9
GOVERNMENT								
ADMINISTRATIVE STAFF	.6	6.9	.9	9.6	1.0	11.5	1.1	12.5

TABLE C.22. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, FRP Combined System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	2825	2825	1275	1275	1275	1275	1275	1275
BASELINE	60376		72697		89545		98006	
PROJECT IN-MIGRATION (CUMULATIVE)	432	5234	2227	9852	2614	11759	2947	13014
BASELINE PLUS PROJECT	60808	65610	74924	82550	92159	101304	100953	111020
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.7	8.0	3.0	11.9	2.8	11.6	2.9	11.7
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.5	22.6	22.6	33.5	32.9	39.0	38.8
BASELINE PLUS PROJECT	27.8	27.3	29.1	28.4	35.1	34.8	36.2	36.5
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		48.2	
PROJECT IN-MIGRATION	43.6	38.4	60.6	55.9	28.0	31.8	28.7	28.7
BASELINE PLUS PROJECT	51.1	50.1	47.8	48.4	42.5	41.6	47.6	45.6
SEX RATIO								
BASELINE	99.4		99.3		98.9		96.6	
PROJECT IN-MIGRATION	157.7	110.0	132.5	120.1	128.3	120.5	124.5	119.0
BASELINE PLUS PROJECT	99.7	100.2	100.1	101.5	99.7	101.2	97.3	99.0

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.38		3.71		1.39		.60	
PROJECT IN-MIGRATION	5.48	2.60	32.79	12.65	1.07	1.18	.80	.68
BASELINE PLUS PROJECT	1.45	1.50	4.18	4.59	1.38	1.36	.61	.61

TABLE C.23. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, FRP Combined System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.6	7.0	3.0	13.1	3.5	15.6	3.9	17.3
NURSES	2.1	25.9	11.0	48.8	12.9	58.2	14.6	64.4
DENTISTS	.2	3.0	1.3	5.6	1.5	6.7	1.7	7.4
HOSPITAL BEDS	2.5	30.8	13.1	57.9	15.4	69.1	17.3	76.5
NURSING CARE BEDS	.5	12.6	8.3	34.4	15.3	64.4	25.4	109.0
EDUCATION								
TEACHERS: K-8	3.1	35.1	21.3	89.9	14.4	74.6	13.8	61.4
TEACHERS: 9-12	2.7	31.5	12.4	60.5	16.5	69.0	10.7	49.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	707.3	8281.9	3256.6	15923.9	4347.3	18173.4	2819.0	12895.0
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	245.4	2971.6	1264.4	5593.6	1484.1	6676.3	1673.0	7388.6
SOLID WASTE (VEHICLES)	.0	.6	.2	1.1	.3	1.3	.3	1.4
SOLID WASTE (PERSONNEL)	.1	1.7	.7	3.3	.9	3.9	1.0	4.3
LIQUID WASTE (CUBIC METERS/DAY)	163.6	1981.0	842.9	3729.1	989.4	4450.9	1115.3	4925.7
FIRE AND POLICE								
FIREMEN	.3	3.5	1.5	6.6	1.8	7.9	2.0	8.7
POLICEMEN	.9	10.5	4.5	19.7	5.2	23.5	5.9	26.0
RECREATION								
PLAYGROUNDS (HECTARES)	.2	2.1	.9	3.9	1.0	4.6	1.2	5.1
NEIGHBORHOOD PARKS (")	.1	1.8	.7	3.3	.9	4.0	1.0	4.4
COMMUNITY PARKS (")	.2	2.6	1.1	4.9	1.3	5.9	1.5	6.5
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	18.6	225.1	95.8	423.6	112.4	505.6	126.7	559.6
GOVERNMENT								
ADMINISTRATIVE STAFF	.4	4.7	2.0	8.9	2.4	10.6	2.7	11.7

TABLE C.24. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, MOX FFP Production Facility

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	571	571	300	300	300	300	300	300
BASELINE	44243		46133		50382		54613	
PROJECT IN-MIGRATION (CUMULATIVE)	1537	2492	1322	3129	1562	3752	1730	4079
BASELINE PLUS PROJECT	45780	46735	47455	49262	51944	54134	56342	58692
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	3.4	5.3	2.8	6.4	3.0	6.9	3.1	7.0
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		34.0	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	33.0	32.5	38.9	38.8
BASELINE PLUS PROJECT	26.8	26.7	28.1	27.8	31.1	31.2	34.2	34.4
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		46.8	
PROJECT IN-MIGRATION	37.3	38.2	59.6	55.4	29.3	32.8	26.6	26.2
BASELINE PLUS PROJECT	60.4	60.0	66.9	66.3	52.4	51.7	46.1	45.2
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.9	
PROJECT IN-MIGRATION	103.4	108.9	120.6	108.5	120.9	113.4	120.1	114.9
BASELINE PLUS PROJECT	94.3	94.7	94.5	94.7	95.1	95.6	96.6	97.1

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.60		.84		.59		.54	
PROJECT IN-MIGRATION	.34	1.41	-3.02	4.55	1.11	1.21	.68	.56
BASELINE PLUS PROJECT	.59	.65	.72	1.05	.60	.63	.54	.54

TABLE C.25. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, MOX FFP Production Facility

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	1.5	2.4	1.3	3.0	1.5	3.6	1.7	3.9
NURSES	4.0	6.4	3.4	8.1	4.0	9.7	4.5	10.5
DENTISTS	.5	.8	.4	1.0	.5	1.2	.5	1.3
HOSPITAL BEDS	5.1	8.3	4.4	10.4	5.2	12.5	5.7	13.5
NURSING CARE BEDS	1.5	2.3	2.0	4.6	3.5	7.9	5.5	12.4
EDUCATION								
TEACHERS: K-8	10.1	16.6	12.4	28.0	9.4	25.6	7.9	18.5
TEACHERS: 9-12	9.4	15.0	8.3	21.8	10.0	22.6	6.5	15.8
CLASSROOM SPACE: (SQUARE METERS 9-12)	2485.0	3957.7	2184.4	5726.9	2628.8	5943.7	1716.1	4152.0
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	872.8	1415.0	750.4	1776.8	886.9	2130.1	982.1	2315.9
SOLID WASTE (VEHICLES)	.2	.3	.1	.3	.2	.4	.2	.4
SOLID WASTE (PERSONNEL)	.5	.8	.4	1.0	.5	1.2	.6	1.3
LIQUID WASTE (CUBIC METERS/DAY)	581.9	943.3	500.3	1184.5	591.3	1420.0	654.8	1543.9
FIRE AND POLICE								
FIREMEN	1.0	1.7	.9	2.1	1.0	2.5	1.2	2.7
POLICEMEN	3.1	5.0	2.6	6.3	3.1	7.5	3.5	8.2
RECREATION								
PLAYGROUNDS (HECTARES)	.6	1.0	.5	1.2	.6	1.5	.7	1.6
NEIGHBORHOOD PARKS (")	.5	.8	.4	1.1	.5	1.3	.6	1.4
COMMUNITY PARKS (")	.8	1.2	.7	1.6	.8	1.9	.9	2.0
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	89.8	145.5	77.2	182.8	91.2	219.1	101.0	238.2
GOVERNMENT								
ADMINISTRATIVE STAFF	1.4	2.2	1.2	2.8	1.4	3.4	1.6	3.7

TABLE C.26. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, MOX FFP Production Facility

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	571	571	300	300	300	300	300	300
BASELINE	21252		23102		26273		28604	
PROJECT IN-MIGRATION (CUMULATIVE)	39	702	187	805	219	941	246	1056
BASELINE PLUS PROJECT	21290	21954	23290	23908	26492	27214	28850	29660
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.2	3.2	.8	3.4	.8	3.5	.9	3.6
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		33.2	
PROJECT IN-MIGRATION	23.1	23.5	22.2	22.6	33.2	33.1	38.4	38.2
BASELINE PLUS PROJECT	25.5	25.4	26.8	26.7	30.2	30.3	33.2	33.4
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		45.6	
PROJECT IN-MIGRATION	43.6	40.3	62.4	60.5	25.9	26.8	26.0	27.4
BASELINE PLUS PROJECT	59.8	59.1	60.7	60.7	49.5	48.8	45.4	44.8
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	121.8	131.0	132.6	126.6	127.0	122.6	121.9
BASELINE PLUS PROJECT	93.4	94.2	94.3	95.2	95.4	96.1	95.7	96.4

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.85		1.67		.86		.57	
PROJECT IN-MIGRATION	5.29	1.17	31.55	2.75	1.05	1.04	.79	.77
BASELINE PLUS PROJECT	.87	.86	1.80	1.71	.86	.86	.57	.57

TABLE C.27. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, MOX FFP Production Facility

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.0	.6	.2	.7	.2	.8	.2	.9
NURSES	.1	2.1	.6	2.4	.6	2.8	.7	3.1
DENTISTS	.0	.2	.1	.2	.1	.3	.1	.3
HOSPITAL BEDS	.1	2.6	.7	3.0	.8	3.5	.9	3.9
NURSING CARE BEDS	.0	.6	.3	1.1	.4	1.9	.7	3.0
EDUCATION								
TEACHERS: K-8	.3	4.8	1.8	7.7	1.2	5.1	1.1	5.1
TEACHERS: 9-12	.2	4.1	1.1	4.5	1.5	6.1	.9	4.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	63.3	1071.8	282.4	1173.7	386.4	1603.9	245.2	1052.6
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	22.0	398.6	106.3	457.3	124.1	534.3	139.6	599.6
SOLID WASTE (VEHICLES)	.0	.1	.0	.1	.0	.1	.0	.1
SOLID WASTE (PERSONNEL)	.0	.2	.1	.3	.1	.3	.1	.3
LIQUID WASTE (CUBIC METERS/DAY)	14.6	265.7	70.9	304.9	82.7	356.2	93.1	399.7
FIRE AND POLICE								
FIREMEN	.0	.5	.1	.5	.1	.6	.2	.7
POLICEMEN	.1	1.4	.4	1.6	.4	1.9	.5	2.1
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.3	.1	.3	.1	.4	.1	.4
NEIGHBORHOOD PARKS (")	.0	.2	.1	.3	.1	.3	.1	.4
COMMUNITY PARKS (")	.0	.3	.1	.4	.1	.5	.1	.5
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	1.8	32.6	8.7	37.4	10.1	43.7	11.4	49.0
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.6	.2	.7	.2	.8	.2	1.0

TABLE C.28. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, MOX FFP Production Facility

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	571	571	300	300	300	300	300	300
BASELINE	60376		72697		89545		98006	
PROJECT IN-MIGRATION (CUMULATIVE)	17	247	459	986	536	1159	605	1306
BASELINE PLUS PROJECT	60393	60623	73156	73683	90081	90703	98611	99312
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.0	.4	.6	1.3	.6	1.3	.6	1.3
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.1	22.0	22.8	33.4	33.5	39.2	38.9
BASELINE PLUS PROJECT	27.8	27.8	29.3	29.2	35.1	35.1	36.2	36.2
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		48.2	
PROJECT IN-MIGRATION	43.6	43.6	63.4	59.7	26.9	28.3	26.7	29.4
BASELINE PLUS PROJECT	51.2	51.1	47.5	47.6	42.8	42.7	48.1	47.9
SEX RATIO								
BASELINE	99.4		99.3		98.9		96.6	
PROJECT IN-MIGRATION	157.7	157.7	130.2	133.4	127.5	128.6	125.3	124.2
BASELINE PLUS PROJECT	99.4	99.5	99.4	99.6	99.1	99.3	96.7	96.9

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.38		3.71		1.39		.60	
PROJECT IN-MIGRATION	10.25	4.76	66.25	27.68	1.04	1.08	.80	.80
BASELINE PLUS PROJECT	1.40	1.41	3.83	3.90	1.39	1.39	.60	.60

TABLE C.29. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, MOX FFP Production Facility

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.0	.3	.6	1.3	.7	1.5	.8	1.7
NURSES	.1	1.2	2.3	4.9	2.7	5.7	3.0	6.5
DENTISTS	.0	.1	.3	.6	.3	.7	.3	.7
HOSPITAL BEDS	.1	1.5	2.7	5.8	3.2	6.8	3.6	7.7
NURSING CARE BEDS	.0	.3	1.9	3.5	3.3	6.7	5.1	11.4
EDUCATION								
TEACHERS: K-8	.1	1.8	4.5	9.4	2.9	6.4	2.7	6.2
TEACHERS: 9-12	.1	1.5	2.7	5.4	3.6	7.2	2.2	4.7
CLASSROOM SPACE: (SQUARE METERS 9-12)	27.3	404.1	703.3	1416.5	938.4	1891.2	581.9	1246.8
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	9.5	140.2	260.4	559.7	304.5	657.8	343.3	741.6
SOLID WASTE (VEHICLES)	.0	.0	.1	.1	.1	.1	.1	.1
SOLID WASTE (PERSONNEL)	.0	.1	.2	.3	.2	.4	.2	.4
LIQUID WASTE (CUBIC METERS/DAY)	6.3	93.5	173.6	373.1	203.0	438.6	228.8	494.4
FIRE AND POLICE								
FIREMEN	.0	.2	.3	.7	.4	.8	.4	.9
POLICEMEN	.0	.5	.9	2.0	1.1	2.3	1.2	2.6
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.1	.2	.4	.2	.5	.2	.5
NEIGHBORHOOD PARKS (")	.0	.1	.2	.3	.2	.4	.2	.4
COMMUNITY PARKS (")	.0	.1	.2	.5	.3	.6	.3	.7
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	.7	10.6	19.7	42.4	23.1	49.8	26.0	56.2
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.2	.4	.9	.5	1.0	.5	1.2

TABLE C.30. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site MOX Waste Management Reference System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	54	54	16	16	16	16	16	16
BASELINE	44243		46133		50382		54613	
PROJECT IN-MIGRATION (CUMULATIVE)	6	69	34	52	40	60	45	68
BASELINE PLUS PROJECT	44249	44312	46167	46184	50421	50442	54657	54680
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.0	.2	.1	.1	.1	.1	.1	.1
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		34.0	
PROJECT IN-MIGRATION	23.1	23.1	22.0	22.5	33.4	33.3	39.1	38.8
BASELINE PLUS PROJECT	27.0	27.0	28.3	28.2	31.0	31.0	34.0	34.0
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		46.8	
PROJECT IN-MIGRATION	43.6	43.6	63.6	60.9	26.4	27.6	26.4	28.5
BASELINE PLUS PROJECT	61.4	61.4	67.1	67.1	53.3	53.2	46.8	46.8
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.9	
PROJECT IN-MIGRATION	157.7	157.7	130.0	132.4	126.8	127.5	124.4	123.4
BASELINE PLUS PROJECT	94.0	94.0	93.9	93.9	94.4	94.5	96.0	96.0

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.60		.84		.59		.54	
PROJECT IN-MIGRATION	5.82	-.03	35.30	-5.72	1.04	1.06	.77	.77
BASELINE PLUS PROJECT	.60	.60	.85	.83	.59	.59	.54	.54

TABLE C.31. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, MOX Waste Management Reference System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.0	.1	.0	.0	.0	.1	.0	.1
NURSES	.0	.2	.1	.1	.1	.2	.1	.2
DENTISTS	.0	.0	.0	.0	.0	.0	.0	.0
HOSPITAL BEDS	.0	.2	.1	.2	.1	.2	.1	.2
NURSING CARE BEDS	.0	.0	.1	.1	.1	.1	.1	.2
EDUCATION								
TEACHERS: K-8	.0	.5	.3	.5	.2	.3	.2	.3
TEACHERS: 9-12	.0	.4	.2	.3	.3	.4	.2	.2
CLASSROOM SPACE: (SQUARE METERS 9-12)	9.5	112.2	52.3	75.5	70.7	102.4	43.4	65.7
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	3.3	38.9	19.3	29.3	22.6	34.3	25.3	38.5
SOLID WASTE (VEHICLES)	.0	.0	.0	.0	.0	.0	.0	.0
SOLID WASTE (PERSONNEL)	.0	.0	.0	.0	.0	.0	.0	.0
LIQUID WASTE (CUBIC METERS/DAY)	2.2	26.0	12.9	19.5	15.0	22.9	16.9	25.6
FIRE AND POLICE								
FIREMEN	.0	.0	.0	.0	.0	.0	.0	.0
POLICEMEN	.0	.1	.1	.1	.1	.1	.1	.1
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.0	.0	.0	.0	.0	.0	.0
NEIGHBORHOOD PARKS (")	.0	.0	.0	.0	.0	.0	.0	.0
COMMUNITY PARKS (")	.0	.0	.0	.0	.0	.0	.0	.0
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	.3	4.0	2.0	3.0	2.3	3.5	2.6	4.0
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.1	.0	.0	.0	.1	.0	.1

TABLE C.32. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, MOX Waste Management Reference System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	54	54	16	16	16	16	16	16
BASELINE	21252		23102		26273		28604	
PROJECT IN-MIGRATION (CUMULATIVE)	1	7	10	27	11	31	13	35
BASELINE PLUS PROJECT	21253	21259	23112	23129	26284	26304	28617	28639
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.0	.0	.0	.1	.0	.1	.0	.1
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		33.2	
PROJECT IN-MIGRATION	23.1	23.1	22.1	22.3	33.2	33.2	38.5	38.4
BASELINE PLUS PROJECT	25.5	25.5	26.8	26.8	30.2	30.2	33.2	33.2
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		45.6	
PROJECT IN-MIGRATION	43.6	43.6	62.9	62.0	25.7	26.1	25.7	26.4
BASELINE PLUS PROJECT	59.8	59.8	60.7	60.7	49.7	49.7	45.6	45.6
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	157.7	130.6	131.4	126.5	126.6	122.8	122.5
BASELINE PLUS PROJECT	93.4	93.4	94.1	94.1	95.1	95.2	95.5	95.6

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.85		1.67		.86		.57	
PROJECT IN-MIGRATION	6.21	4.56	38.01	26.45	1.03	1.03	.79	.78
BASELINE PLUS PROJECT	.85	.85	1.68	1.69	.86	.86	.57	.57

TABLE C.33. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, MOX Waste Management Reference System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.0	.0	.0	.0	.0	.0	.0	.0
NURSES	.0	.0	.0	.1	.0	.1	.0	.1
DENTISTS	.0	.0	.0	.0	.0	.0	.0	.0
HOSPITAL BEDS	.0	.0	.0	.1	.0	.1	.0	.1
NURSING CARE BEDS	.0	.0	.0	.0	.0	.1	.0	.1
EDUCATION								
TEACHERS: K-8	.0	.1	.1	.3	.1	.2	.1	.2
TEACHERS: 9-12	.0	.0	.1	.2	.1	.2	.0	.1
CLASSROOM SPACE: (SQUARE METERS 9-12)	2.4	11.7	14.9	40.3	20.3	55.1	12.8	35.3
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	.8	4.1	5.6	15.3	6.5	17.9	7.3	20.1
SOLID WASTE (VEHICLES)	.0	.0	.0	.0	.0	.0	.0	.0
SOLID WASTE (PERSONNEL)	.0	.0	.0	.0	.0	.0	.0	.0
LIQUID WASTE (CUBIC METERS/DAY)	.6	2.7	3.7	10.2	4.3	11.9	4.9	13.4
FIRE AND POLICE								
FIREMEN	.0	.0	.0	.0	.0	.0	.0	.0
POLICEMEN	.0	.0	.0	.1	.0	.1	.0	.1
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.0	.0	.0	.0	.0	.0	.0
NEIGHBORHOOD PARKS (")	.0	.0	.0	.0	.0	.0	.0	.0
COMMUNITY PARKS (")	.0	.0	.0	.0	.0	.0	.0	.0
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	.1	.3	.5	1.2	.5	1.5	.6	1.6
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.0	.0	.0	.0	.0	.0	.0

TABLE C.34. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, MOX Waste Management Reference System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	54	54	16	16	16	16	16	16
BASELINE	60376		72697		89545		98006	
PROJECT IN-MIGRATION (CUMULATIVE)	2	8	25	48	29	57	33	64
BASELINE PLUS PROJECT	60378	60384	72722	72746	89574	89601	98039	98070
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.0	.0	.0	.1	.0	.1	.0	.1
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.1	22.1	22.5	33.4	33.5	39.2	39.0
BASELINE PLUS PROJECT	27.8	27.8	29.3	29.3	35.1	35.1	36.1	36.1
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		48.2	
PROJECT IN-MIGRATION	43.6	43.6	62.9	61.2	27.1	27.7	27.0	28.2
BASELINE PLUS PROJECT	51.2	51.2	47.4	47.4	42.9	42.9	48.2	48.2
SEX RATIO								
BASELINE	99.4		99.3		98.9		96.6	
PROJECT IN-MIGRATION	157.7	157.7	130.6	132.0	127.6	128.1	125.1	124.6
BASELINE PLUS PROJECT	99.4	99.4	99.3	99.3	98.9	98.9	96.6	96.6

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.38		3.71		1.39		.60	
PROJECT IN-MIGRATION	8.68	6.03	55.22	36.63	1.05	1.06	.80	.80
BASELINE PLUS PROJECT	1.38	1.39	3.72	3.73	1.39	1.39	.60	.60

TABLE C.35. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, MOX Waste Management Reference System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.0	.0	.0	.1	.0	.1	.0	.1
NURSES	.0	.0	.1	.2	.1	.3	.2	.3
DENTISTS	.0	.0	.0	.0	.0	.0	.0	.0
HOSPITAL BEDS	.0	.0	.1	.3	.2	.3	.2	.4
NURSING CARE BEDS	.0	.0	.1	.2	.2	.3	.3	.5
EDUCATION								
TEACHERS: K-8	.0	.1	.2	.5	.2	.3	.1	.3
TEACHERS: 9-12	.0	.0	.1	.3	.2	.4	.1	.2
CLASSROOM SPACE: (SQUARE METERS 9-12)	2.6	12.7	38.0	71.5	50.7	95.5	31.7	61.3
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	.9	4.4	14.2	27.5	16.6	32.2	18.7	36.3
SOLID WASTE (VEHICLES)	.0	.0	.0	.0	.0	.0	.0	.0
SOLID WASTE (PERSONNEL)	.0	.0	.0	.0	.0	.0	.0	.0
LIQUID WASTE (CUBIC METERS/DAY)	.6	2.9	9.5	18.3	11.1	21.5	12.5	24.2
FIRE AND POLICE								
FIREMEN	.0	.0	.0	.0	.0	.0	.0	.0
POLICEMEN	.0	.0	.0	.1	.1	.1	.1	.1
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.0	.0	.0	.0	.0	.0	.0
NEIGHBORHOOD PARKS (")	.0	.0	.0	.0	.0	.0	.0	.0
COMMUNITY PARKS (")	.0	.0	.0	.0	.0	.0	.0	.0
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	.1	.3	1.1	2.1	1.3	2.4	1.4	2.8
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.0	.0	.0	.0	.1	.0	.1

TABLE C.36. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, MOX FFP Combined System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	625	625	316	316	316	316	316	316
BASELINE	44243		46133		50382		54613	
PROJECT IN-MIGRATION (CUMULATIVE)	1720	2754	1481	3376	1754	4049	1937	4400
BASELINE PLUS PROJECT	45963	46997	47614	49509	52135	54431	56550	59012
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	3.7	5.9	3.1	6.8	3.4	7.4	3.4	7.5
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		34.0	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	32.9	32.5	38.9	38.8
BASELINE PLUS PROJECT	26.8	26.7	28.0	27.7	31.1	31.2	34.2	34.4
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		46.8	
PROJECT IN-MIGRATION	37.3	38.2	59.0	55.2	29.8	32.9	26.5	26.2
BASELINE PLUS PROJECT	60.3	59.8	66.8	66.2	52.4	51.6	46.0	45.1
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.9	
PROJECT IN-MIGRATION	103.1	108.6	118.9	108.3	119.8	113.3	119.4	114.8
BASELINE PLUS PROJECT	94.3	94.8	94.6	94.8	95.2	95.7	96.7	97.2

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.60		.84		.59		.54	
PROJECT IN-MIGRATION	.34	1.34	-3.00	4.07	1.13	1.21	.66	.55
BASELINE PLUS PROJECT	.59	.65	.71	1.04	.60	.63	.54	.54

TABLE C.37. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, MOX FFP Combined System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	1.7	2.6	1.4	3.2	1.7	3.9	1.9	4.2
NURSES	4.4	7.1	3.8	8.7	4.5	10.4	5.0	11.4
DENTISTS	.5	.9	.5	1.0	.5	1.3	.6	1.4
HOSPITAL BEDS	5.7	9.1	4.9	11.2	5.8	13.4	6.4	14.6
NURSING CARE BEDS	1.7	2.6	2.2	4.9	3.9	8.6	6.1	13.4
EDUCATION								
TEACHERS: K-8	11.3	18.4	13.8	30.1	10.7	27.7	8.8	19.9
TEACHERS: 9-12	10.6	16.6	9.4	23.5	11.1	24.3	7.3	17.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	2783.7	4377.7	2481.9	6192.2	2927.0	6401.4	1928.4	4481.4
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	976.8	1563.7	840.8	1916.6	995.6	2298.7	1099.9	2498.0
SOLID WASTE (VEHICLES)	.2	.3	.2	.4	.2	.4	.2	.5
SOLID WASTE (PERSONNEL)	.6	.9	.5	1.1	.6	1.3	.6	1.5
LIQUID WASTE (CUBIC METERS/DAY)	651.2	1042.5	560.5	1277.8	663.8	1532.5	733.3	1665.3
FIRE AND POLICE								
FIREMEN	1.2	1.8	1.0	2.3	1.2	2.7	1.3	2.9
POLICEMEN	3.4	5.5	3.0	6.8	3.5	8.1	3.9	8.8
RECREATION								
PLAYGROUNDS (HECTARES)	.7	1.1	.6	1.3	.7	1.6	.8	1.7
NEIGHBORHOOD PARKS (")	.6	.9	.5	1.1	.6	1.4	.7	1.5
COMMUNITY PARKS (")	.9	1.4	.7	1.7	.9	2.0	1.0	2.2
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	100.5	160.8	86.5	197.2	102.4	236.4	113.1	256.9
GOVERNMENT								
ADMINISTRATIVE STAFF	1.5	2.5	1.3	3.0	1.6	3.6	1.7	4.0

TABLE C.38. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, MOX FFP Combined System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	625	625	316	316	316	316	316	316
BASELINE	60376		72697		89545		98006	
PROJECT IN-MIGRATION (CUMULATIVE)	18	293	484	1064	566	1251	638	1410
BASELINE PLUS PROJECT	60394	60669	73181	73761	90110	90796	98644	99416
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.0	.5	.7	1.4	.6	1.4	.6	1.4
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.1	22.0	22.9	33.4	33.5	39.2	38.9
BASELINE PLUS PROJECT	27.8	27.8	29.3	29.2	35.1	35.1	36.2	36.2
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		48.2	
PROJECT IN-MIGRATION	43.6	43.6	63.4	59.2	26.9	28.5	26.7	29.7
BASELINE PLUS PROJECT	51.2	51.1	47.5	47.6	42.8	42.7	48.0	47.9
SEX RATIO								
BASELINE	99.4		99.3		98.9		96.6	
PROJECT IN-MIGRATION	157.7	157.7	130.2	133.8	127.5	128.7	125.3	124.1
BASELINE PLUS PROJECT	99.4	99.6	99.4	99.7	99.1	99.3	96.8	96.9

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.38		3.71		1.39		.60	
PROJECT IN-MIGRATION	10.15	4.49	65.50	25.77	1.04	1.08	.80	.80
BASELINE PLUS PROJECT	1.40	1.41	3.84	3.91	1.39	1.39	.60	.60

TABLE C.39. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, MOX FFP Combined System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.0	.4	.6	1.4	.8	1.7	.8	1.9
NURSES	.1	1.5	2.4	5.3	2.8	6.2	3.2	7.0
DENTISTS	.0	.2	.3	.6	.3	.7	.4	.8
HOSPITAL BEDS	.1	1.7	2.8	6.3	3.3	7.4	3.7	8.3
NURSING CARE BEDS	.0	.3	2.0	3.8	3.4	7.2	5.3	12.4
EDUCATION								
TEACHERS: K-8	.1	2.1	4.7	10.1	3.1	7.0	2.9	6.8
TEACHERS: 9-12	.1	1.8	2.8	5.8	3.8	7.7	2.3	5.1
CLASSROOM SPACE: (SQUARE METERS 9-12)	29.9	479.8	741.3	1516.5	989.1	2025.0	613.6	1344.9
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	10.4	166.5	274.6	603.9	321.1	710.3	362.0	800.7
SOLID WASTE (VEHICLES)	.0	.0	.1	.1	.1	.1	.1	.2
SOLID WASTE (PERSONNEL)	.0	.1	.2	.4	.2	.4	.2	.5
LIQUID WASTE (CUBIC METERS/DAY)	6.9	111.0	183.1	402.6	214.1	473.5	241.3	533.8
FIRE AND POLICE								
FIREMEN	.0	.2	.3	.7	.4	.8	.4	.9
POLICEMEN	.0	.6	1.0	2.1	1.1	2.5	1.3	2.8
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.1	.2	.4	.2	.5	.3	.6
NEIGHBORHOOD PARKS (")	.0	.1	.2	.4	.2	.4	.2	.5
COMMUNITY PARKS (")	.0	.1	.2	.5	.3	.6	.3	.7
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	.8	12.6	20.8	45.7	24.3	53.8	27.4	60.6
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.3	.4	1.0	.5	1.1	.6	1.3

TABLE C.40. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, MOX FFP Combined System

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	625	625	316	316	316	316	316	316
BASELINE	21252		23102		26273		28604	
PROJECT IN-MIGRATION (CUMULATIVE)	38	868	196	992	229	1165	258	1298
BASELINE PLUS PROJECT	21289	22119	23299	24095	26502	27438	28862	29903
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.2	3.9	.8	4.1	.9	4.2	.9	4.3
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		33.2	
PROJECT IN-MIGRATION	23.1	23.5	22.2	22.5	33.2	32.9	38.4	38.2
BASELINE PLUS PROJECT	25.5	25.4	26.8	26.6	30.2	30.3	33.2	33.4
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		45.6	
PROJECT IN-MIGRATION	43.6	39.4	62.5	59.1	25.9	27.9	26.0	27.1
BASELINE PLUS PROJECT	59.8	58.9	60.7	60.6	49.5	48.7	45.4	44.7
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	116.3	130.9	127.2	126.5	123.8	122.7	120.0
BASELINE PLUS PROJECT	93.4	94.2	94.3	95.3	95.4	96.2	95.7	96.5

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.85		1.67		.86		.57	
PROJECT IN-MIGRATION	5.48	1.15	32.92	2.68	1.03	1.07	.79	.72
BASELINE PLUS PROJECT	.87	.86	1.80	1.71	.86	.87	.57	.57

TABLE C.41. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, MOX FFP Combined System

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.0	.7	.2	.9	.2	1.0	.2	1.1
NURSES	.1	2.6	.6	2.9	.7	3.4	.8	3.8
DENTISTS	.0	.2	.1	.3	.1	.3	.1	.4
HOSPITAL BEDS	.1	3.2	.7	3.7	.9	4.3	1.0	4.8
NURSING CARE BEDS	.0	.7	.3	1.3	.5	2.3	.7	3.6
EDUCATION								
TEACHERS: K-8	.3	5.9	1.9	9.3	1.2	6.7	1.2	6.2
TEACHERS: 9-12	.2	5.1	1.1	5.8	1.5	7.4	1.0	5.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	61.9	1346.5	296.5	1518.9	405.7	1951.5	257.0	1304.0
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	21.5	492.5	111.4	565.3	130.1	661.4	146.3	737.2
SOLID WASTE (VEHICLES)	.0	.1	.0	.1	.0	.1	.0	.1
SOLID WASTE (PERSONNEL)	.0	.3	.1	.3	.1	.4	.1	.4
LIQUID WASTE (CUBIC METERS/DAY)	14.3	328.4	74.3	375.5	86.7	440.9	97.6	491.5
FIRE AND POLICE								
FIREMEN	.0	.6	.1	.7	.2	.8	.2	.9
POLICEMEN	.1	1.7	.4	2.0	.5	2.3	.5	2.6
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.3	.1	.4	.1	.5	.1	.5
NEIGHBORHOOD PARKS (")	.0	.3	.1	.3	.1	.4	.1	.4
COMMUNITY PARKS (")	.0	.4	.1	.5	.1	.6	.1	.6
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	1.8	40.3	9.1	[illegible]	10.[illegible]	54.1	12.0	60.2
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.8	.2	.9	.2	1.0	.2	1.2

TABLE C.42. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Independent Spent Fuel Storage Facility (ISFSF)

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1350	1350	301	301	301	301	301	301
BASELINE	44243		46133		50382		54613	
PROJECT IN-MIGRATION (CUMULATIVE)	4180	6272	2765	4574	3322	5511	3604	5956
BASELINE PLUS PROJECT	48423	50515	48898	50707	53704	55892	58217	60569
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	8.6	12.4	5.7	9.0	6.2	9.9	6.2	9.8
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		34.0	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	32.5	32.4	38.7	38.6
BASELINE PLUS PROJECT	26.5	26.3	27.8	27.5	31.2	31.2	34.3	34.5
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		46.8	
PROJECT IN-MIGRATION	37.0	37.9	54.5	53.6	33.4	34.2	26.5	26.5
BASELINE PLUS PROJECT	58.9	58.1	66.3	65.8	51.9	51.2	45.4	44.5
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.9	
PROJECT IN-MIGRATION	101.7	107.1	107.6	105.4	112.7	111.4	114.2	113.1
BASELINE PLUS PROJECT	94.6	95.5	94.6	94.9	95.5	96.0	97.0	97.5

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.60		.84		.59		.54	
PROJECT IN-MIGRATION	-.42	-.15	-8.26	-6.32	1.22	1.24	.54	.52
BASELINE PLUS PROJECT	.53	.52	.20	.08	.62	.65	.54	.54

TABLE C.43. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Independent Spent Fuel Storage Facility (ISFSF)

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	4.0	6.0	2.7	4.4	3.2	5.3	3.5	5.7
NURSES	10.8	16.2	7.1	11.8	8.6	14.2	9.3	15.4
DENTISTS	1.3	1.9	.9	1.4	1.0	1.7	1.1	1.8
HOSPITAL BEDS	13.9	20.8	9.2	15.2	11.0	18.3	12.0	19.8
NURSING CARE BEDS	4.1	6.0	3.9	6.4	6.9	11.4	11.0	18.0
EDUCATION								
TEACHERS: K-8	27.3	41.7	24.5	40.1	23.0	39.1	16.4	27.2
TEACHERS: 9-12	25.8	38.1	19.3	32.5	19.7	32.2	14.0	23.2
CLASSROOM SPACE: (SQUARE METERS 9-12)	6793.1	10016.0	5083.4	8556.4	5184.2	8473.9	3676.8	6107.0
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	2373.0	3561.0	1570.1	2546.8	1886.0	3128.6	2046.2	3381.7
SOLID WASTE (VEHICLES)	.5	.7	.3	.5	.4	.6	.4	.7
SOLID WASTE (PERSONNEL)	1.4	2.1	.9	1.5	1.1	1.8	1.2	2.0
LIQUID WASTE (CUBIC METERS/DAY)	1582.0	2374.0	1046.7	1731.2	1257.4	2085.8	1364.1	2254.5
FIRE AND POLICE								
FIREMEN	2.8	4.2	1.9	3.1	2.2	3.7	2.4	4.0
POLICEMEN	8.4	12.5	5.5	9.1	6.6	11.0	7.2	11.9
RECREATION								
PLAYGROUNDS (HECTARES)	1.6	2.5	1.1	1.8	1.3	2.2	1.4	2.3
NEIGHBORHOOD PARKS (")	1.4	2.1	.9	1.5	1.1	1.9	1.2	2.0
COMMUNITY PARKS (")	2.1	3.1	1.4	2.3	1.7	2.7	1.8	3.0
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	244.1	366.3	161.5	267.1	194.0	321.8	210.5	347.9
GOVERNMENT								
ADMINISTRATIVE STAFF	3.8	5.6	2.5	4.1	3.0	5.0	3.2	5.4

TABLE C.44. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Independent Spent Fuel Storage Facility (ISFSF)

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1350	1350	301	301	301	301	301	301
BASELINE	21252		23102		26273		28604	
PROJECT IN-MIGRATION (CUMULATIVE)	234	3090	255	2615	299	3130	334	3394
BASELINE PLUS PROJECT	21486	24342	23358	25717	26572	29403	28938	31998
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.1	12.7	1.1	10.2	1.1	10.6	1.2	10.6
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		33.2	
PROJECT IN-MIGRATION	23.1	23.5	23.3	22.3	33.0	32.3	37.8	38.0
BASELINE PLUS PROJECT	25.5	25.0	26.8	26.3	30.2	30.5	33.2	33.8
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		45.6	
PROJECT IN-MIGRATION	43.6	36.9	57.0	52.9	28.3	32.9	30.0	26.5
BASELINE PLUS PROJECT	59.6	56.5	60.6	59.8	49.5	47.7	45.4	43.3
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	101.0	135.6	108.7	127.7	112.7	120.5	112.7
BASELINE PLUS PROJECT	93.9	94.3	94.5	95.5	95.4	96.9	95.8	97.2

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.85		1.67		.86		.57	
PROJECT IN-MIGRATION	1.01	.27	1.73	-3.34	1.05	1.20	.74	.54
BASELINE PLUS PROJECT	.85	.78	1.67	1.10	.86	.89	.57	.56

TABLE C.45. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Independent Spent Fuel Storage Facility (ISFSF)

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.2	2.7	.2	2.2	.3	2.7	.3	2.9
NURSES	.7	9.1	.8	7.7	.9	9.2	1.0	10.0
DENTISTS	.1	.8	.1	.7	.1	.8	.1	.9
HOSPITAL BEDS	.9	11.5	1.0	9.8	1.1	11.7	1.2	12.7
NURSING CARE BEDS	.1	2.9	.3	3.3	.6	5.6	1.0	8.9
EDUCATION								
TEACHERS: K-8	1.7	20.2	2.4	22.9	1.7	21.6	1.7	16.0
TEACHERS: 9-12	1.5	19.1	1.3	17.8	1.8	18.2	1.3	13.3
CLASSROOM SPACE: (SQUARE METERS 9-12)	383.0	5034.4	348.8	4692.3	475.3	4794.3	332.3	3510.2
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	132.9	1754.3	144.9	1484.5	169.6	1777.0	189.4	1926.9
SOLID WASTE (VEHICLES)	.0	.3	.0	.3	.0	.3	.0	.4
SOLID WASTE (PERSONNEL)	.1	1.0	.1	.9	.1	1.0	.1	1.1
LIQUID WASTE (CUBIC METERS/DAY)	88.6	1169.5	96.6	989.6	113.1	1184.7	126.3	1284.6
FIRE AND POLICE								
FIREMEN	.2	2.1	.2	1.8	.2	2.1	.2	2.3
POLICEMEN	.5	6.2	.5	5.2	.6	6.3	.7	6.8
RECREATION								
PLAYGROUNDS (HECTARES)	.1	1.2	.1	1.0	.1	1.2	.1	1.3
NEIGHBORHOOD PARKS (*)	.1	1.0	.1	.9	.1	1.1	.1	1.1
COMMUNITY PARKS (*)	.1	1.5	.1	1.3	.1	1.6	.2	1.7
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	10.9	143.4	11.8	121.3	13.9	145.2	15.5	157.5
GOVERNMENT								
ADMINISTRATIVE STAFF	.2	2.8	.2	2.4	.3	2.8	.3	3.1

TABLE C.46. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Independent Spent Fuel Storage Facility (ISFSF)

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1350	1350	301	301	301	301	301	301
BASELINE	60376		72697		89545		98006	
PROJECT IN-MIGRATION (CUMULATIVE)	40	914	478	1501	560	1780	631	2006
BASELINE PLUS PROJECT	60416	61290	73176	74198	90104	91324	98637	100012
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.1	1.5	.7	2.0	.6	1.9	.6	2.0
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.1	22.2	24.1	33.4	33.5	39.2	38.3
BASELINE PLUS PROJECT	27.8	27.7	29.3	29.2	35.1	35.1	36.2	36.2
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		48.2	
PROJECT IN-MIGRATION	43.6	43.6	62.6	53.8	27.2	30.7	27.3	34.2
BASELINE PLUS PROJECT	51.2	51.1	47.5	47.5	42.8	42.7	48.1	47.9
SEX RATIO								
BASELINE	99.4		99.3		98.9		96.6	
PROJECT IN-MIGRATION	157.7	157.7	130.9	138.9	127.7	130.5	125.0	122.5
BASELINE PLUS PROJECT	99.4	100.0	99.4	99.9	99.1	99.5	96.8	97.1

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.38		3.71		1.39		.60	
PROJECT IN-MIGRATION	7.87	2.25	49.57	9.92	1.05	1.14	.80	.80
BASELINE PLUS PROJECT	1.40	1.40	3.83	3.82	1.39	1.38	.60	.61

TABLE C.47. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Independent Spent Fuel Storage Facility (ISFSF)

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.1	1.2	.6	2.0	.7	2.4	.8	2.7
NURSES	.2	4.5	2.4	7.4	2.8	8.8	3.1	9.9
DENTISTS	.0	.5	.3	.9	.3	1.0	.4	1.1
HOSPITAL BEDS	.2	5.4	2.8	8.8	3.3	10.5	3.7	11.8
NURSING CARE BEDS	.0	1.1	1.9	4.2	3.4	9.5	5.3	18.6
EDUCATION								
TEACHERS: K-8	.3	6.6	4.6	13.8	3.0	10.3	2.9	10.5
TEACHERS: 9-12	.2	5.7	2.7	7.3	3.7	9.7	2.3	7.2
CLASSROOM SPACE: (SQUARE METERS 9-12)	65.6	1495.8	722.9	1914.9	964.7	2560.1	606.2	1888.7
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	22.8	519.0	271.5	852.2	317.8	1010.4	358.2	1139.0
SOLID WASTE (VEHICLES)	.0	.1	.1	.2	.1	.2	.1	.2
SOLID WASTE (PERSONNEL)	.0	.3	.2	.5	.2	.6	.2	.7
LIQUID WASTE (CUBIC METERS/DAY)	15.2	346.0	181.0	568.1	211.9	673.6	238.8	759.3
FIRE AND POLICE								
FIREMEN	.0	.6	.3	1.0	.4	1.2	.4	1.3
POLICEMEN	.1	1.8	1.0	3.0	1.1	3.6	1.3	4.0
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.4	.2	.6	.2	.7	.2	.8
NEIGHBORHOOD PARKS (")	.0	.3	.2	.5	.2	.6	.2	.7
COMMUNITY PARKS (")	.0	.5	.2	.7	.3	.9	.3	1.0
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	1.7	39.3	20.6	64.5	24.1	76.5	27.1	86.3
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.8	.4	1.4	.5	1.6	.6	1.8

TABLE C.48. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Extended Fuel Storage System (ISFSF, SFPF, DCSF)

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1690	1690	361	361	361	361	361	361
BASELINE	44243		46133		50382		54613	
PROJECT IN-MIGRATION (CUMULATIVE)	5333	7922	3617	5770	4350	6956	4712	7513
BASELINE PLUS PROJECT	49576	52165	49750	51903	54732	57338	59324	62126
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	10.8	15.2	7.3	11.1	7.9	12.1	7.9	12.1
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		34.0	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	32.4	32.3	38.7	38.6
BASELINE PLUS PROJECT	26.4	26.1	27.7	27.4	31.2	31.3	34.4	34.6
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		46.8	
PROJECT IN-MIGRATION	37.0	37.9	54.1	53.4	33.7	34.3	26.4	26.5
BASELINE PLUS PROJECT	58.4	57.3	66.1	65.4	51.5	50.7	45.0	44.0
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.9	
PROJECT IN-MIGRATION	101.5	106.9	106.5	104.9	112.1	111.1	113.7	112.9
BASELINE PLUS PROJECT	94.8	95.8	94.7	95.0	95.7	96.3	97.2	97.8

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.60		.84		.59		.54	
PROJECT IN-MIGRATION	-.35	-.15	-7.77	-6.34	1.23	1.25	.53	.51
BASELINE PLUS PROJECT	.51	.50	.07	-.10	.64	.66	.54	.53

TABLE C.49. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Extended Fuel Storage System (ISFSF, SFPF, DCSF)

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	5.1	7.6	3.5	5.5	4.2	6.7	4.5	7.2
NURSES	13.8	20.4	9.3	14.9	11.2	17.9	12.2	19.4
DENTISTS	1.7	2.5	1.1	1.8	1.3	2.2	1.5	2.3
HOSPITAL BEDS	17.7	26.3	12.0	19.2	14.4	23.1	15.6	24.9
NURSING CARE BEDS	5.3	7.5	5.1	8.1	9.0	14.3	14.3	22.7
EDUCATION								
TEACHERS: K-8	34.8	52.6	31.9	50.5	30.5	49.6	21.5	34.3
TEACHERS: 9-12	33.0	48.1	25.5	41.2	25.7	40.5	18.3	29.3
CLASSROOM SPACE: (SQUARE METERS 9-12)	8673.3	12660.2	6709.6	10838.1	6752.5	10668.5	4818.3	7711.6
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	3027.8	4497.7	2053.4	3276.1	2469.8	3949.5	2675.0	4265.7
SOLID WASTE (VEHICLES)	.6	.9	.4	.6	.5	.8	.5	.8
SOLID WASTE (PERSONNEL)	1.8	2.6	1.2	1.9	1.4	2.3	1.6	2.5
LIQUID WASTE (CUBIC METERS/DAY)	2018.5	2998.5	1368.9	2184.1	1646.6	2633.0	1783.3	2843.8
FIRE AND POLICE								
FIREMEN	3.6	5.3	2.4	3.9	2.9	4.7	3.2	5.0
POLICEMEN	10.7	15.8	7.2	11.5	8.7	13.9	9.4	15.0
RECREATION								
PLAYGROUNDS (HECTARES)	2.1	3.1	1.4	2.3	1.7	2.7	1.9	3.0
NEIGHBORHOOD PARKS (")	1.8	2.7	1.2	1.9	1.5	2.3	1.6	2.5
COMMUNITY PARKS (")	2.7	3.9	1.8	2.9	2.2	3.5	2.3	3.7
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	311.4	462.6	211.2	337.0	254.1	406.3	275.2	438.8
GOVERNMENT								
ADMINISTRATIVE STAFF	4.8	7.1	3.3	5.2	3.9	6.3	4.2	6.8

TABLE C.50. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Extended Fuel Storage System (ISFSF, SFPF, DCSF)

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1690	1690	361	361	361	361	361	361
BASELINE	21252		23102		26273		28604	
PROJECT IN-MIGRATION (CUMULATIVE)	326	4132	322	3642	377	4368	420	4725
BASELINE PLUS PROJECT	21578	25384	23424	26745	26650	30641	29024	33329
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.5	16.3	1.4	13.6	1.4	14.3	1.4	14.2
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		33.2	
PROJECT IN-MIGRATION	23.1	23.5	23.5	22.3	33.0	32.2	37.7	38.0
BASELINE PLUS PROJECT	25.5	24.9	26.8	26.1	30.2	30.6	33.3	33.9
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		45.6	
PROJECT IN-MIGRATION	43.6	36.6	56.3	52.5	28.7	33.3	30.6	26.3
BASELINE PLUS PROJECT	59.6	55.5	60.6	59.5	49.4	47.1	45.3	42.5
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	99.6	136.3	106.9	127.9	111.6	120.2	112.0
BASELINE PLUS PROJECT	94.1	94.3	94.6	95.7	95.5	97.3	95.8	97.7

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.85		1.67		.86		.57	
PROJECT IN-MIGRATION	.73	.38	-.26	-2.52	1.05	1.21	.73	.52
BASELINE PLUS PROJECT	.85	.78	1.64	1.04	.86	.91	.57	.56

TABLE C.51. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Extended Fuel Storage System (ISFSF, SFPF, DCSF)

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.3	3.6	.3	3.1	.3	3.8	.4	4.1
NURSES	1.0	12.1	.9	10.7	1.1	12.8	1.2	13.9
DENTISTS	.1	1.1	.1	1.0	.1	1.2	.1	1.3
HOSPITAL BEDS	1.2	15.4	1.2	13.6	1.4	16.3	1.6	17.6
NURSING CARE BEDS	.1	3.9	.4	4.6	.7	7.8	1.2	12.4
EDUCATION								
TEACHERS: K-8	2.3	26.8	3.0	31.8	2.1	30.7	2.2	22.2
TEACHERS: 9-12	2.0	25.7	1.6	25.3	2.2	25.3	1.6	18.6
CLASSROOM SPACE: (SQUARE METERS 9-12)	533.6	6763.9	433.5	6653.3	590.5	6659.7	418.5	4901.2
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	185.1	2346.0	182.7	2067.9	213.9	2479.9	238.7	2682.4
SOLID WASTE (VEHICLES)	.0	.5	.0	.4	.0	.5	.0	.5
SOLID WASTE (PERSONNEL)	.1	1.4	.1	1.2	.1	1.4	.1	1.6
LIQUID WASTE (CUBIC METERS/DAY)	123.4	1564.0	121.8	1378.6	142.6	1653.3	159.1	1788.3
FIRE AND POLICE								
FIREMEN	.2	2.8	.2	2.4	.3	2.9	.3	3.2
POLICEMEN	.7	8.3	.6	7.3	.8	8.7	.8	9.4
RECREATION								
PLAYGROUNDS (HECTARES)	.1	1.6	.1	1.4	.1	1.7	.2	1.9
NEIGHBORHOOD PARKS (")	.1	1.4	.1	1.2	.1	1.5	.1	1.6
COMMUNITY PARKS (")	.2	2.1	.2	1.8	.2	2.2	.2	2.4
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	15.1	191.7	14.9	169.0	17.5	202.7	19.5	219.2
GOVERNMENT								
ADMINISTRATIVE STAFF	.3	3.7	.3	3.3	.3	3.9	.4	4.3

TABLE C.52. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Extended Fuel Storage System (ISFSF, SFPF, DCSF)

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1690	1690	361	361	361	361	361	361
BASELINE	60376		72697		89545		98006	
PROJECT IN-MIGRATION (CUMULATIVE)	100	1576	613	2292	719	2712	811	3057
BASELINE PLUS PROJECT	60476	61952	73311	74989	90264	92256	98817	101063
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.2	2.5	.8	3.1	.8	2.9	.8	3.0
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.3	22.5	23.8	33.5	33.5	39.0	38.4
BASELINE PLUS PROJECT	27.8	27.7	29.3	29.1	35.1	35.1	36.2	36.2
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		48.2	
PROJECT IN-MIGRATION	43.6	42.5	61.2	55.1	27.8	30.1	28.3	33.1
BASELINE PLUS PROJECT	51.2	50.9	47.5	47.6	42.8	42.5	48.0	47.7
SEX RATIO								
BASELINE	99.4		99.3		98.9		96.6	
PROJECT IN-MIGRATION	157.7	141.2	132.1	137.6	128.1	130.0	124.6	122.9
BASELINE PLUS PROJECT	99.4	100.2	99.5	100.2	99.1	99.7	96.8	97.3

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.38		3.71		1.39		.60	
PROJECT IN-MIGRATION	5.98	1.89	36.26	7.49	1.06	1.12	.80	.80
BASELINE PLUS PROJECT	1.40	1.40	3.85	3.82	1.39	1.38	.60	.61

TABLE C.53. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Extended Fuel Storage System (ISFSF, SFPF, DCSF)

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.1	2.1	.8	3.0	1.0	3.6	1.1	4.1
NURSES	.5	7.8	3.0	11.3	3.6	13.4	4.0	15.1
DENTISTS	.1	.9	.3	1.3	.4	1.5	.5	1.7
HOSPITAL BEDS	.6	9.3	3.6	13.5	4.2	15.9	4.8	18.0
NURSING CARE BEDS	.1	2.7	2.3	6.8	4.2	14.7	7.0	28.0
EDUCATION								
TEACHERS: K-8	.7	11.2	5.9	21.2	4.0	15.5	3.8	15.6
TEACHERS: 9-12	.6	9.2	3.4	11.4	4.6	15.3	3.0	11.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	163.8	2430.3	905.5	3009.0	1208.7	4021.5	776.8	2886.9
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	56.8	894.7	348.3	1301.1	408.5	1539.5	460.5	1735.5
SOLID WASTE (VEHICLES)	.0	.2	.1	.3	.1	.3	.1	.3
SOLID WASTE (PERSONNEL)	.0	.5	.2	.8	.2	.9	.3	1.0
LIQUID WASTE (CUBIC METERS/DAY)	37.9	596.5	232.2	867.4	272.3	1026.4	307.0	1157.0
FIRE AND POLICE								
FIREMEN	.1	1.1	.4	1.5	.5	1.8	.5	2.0
POLICEMEN	.2	3.2	1.2	4.6	1.4	5.4	1.6	6.1
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.6	.2	.9	.3	1.1	.3	1.2
NEIGHBORHOOD PARKS (")	.0	.5	.2	.8	.2	.9	.3	1.0
COMMUNITY PARKS (")	.0	.8	.3	1.1	.4	1.4	.4	1.5
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	4.3	67.8	26.4	98.5	30.9	116.6	34.9	131.4
GOVERNMENT								
ADMINISTRATIVE STAFF	.1	1.4	.6	2.1	.6	2.4	.7	2.8

TABLE C.54. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Retrievable Waste Storage Facility (RWSF)

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1060	1060	164	164	164	164	164	164
BASELINE	44243		46133		50382		54613	
PROJECT IN-MIGRATION (CUMULATIVE)	3196	4865	1832	2868	2206	3460	2387	3735
BASELINE PLUS PROJECT	47439	49108	47965	49001	52588	53841	56999	58347
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	6.7	9.9	3.8	5.9	4.2	6.4	4.2	6.4
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		34.0	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.1	32.4	32.3	38.6	38.6
BASELINE PLUS PROJECT	26.6	26.4	28.0	27.8	31.1	31.2	34.2	34.3
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		46.8	
PROJECT IN-MIGRATION	37.1	38.0	53.7	53.0	34.1	34.6	26.6	26.7
BASELINE PLUS PROJECT	59.5	58.7	66.5	66.2	52.4	51.9	45.9	45.4
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.9	
PROJECT IN-MIGRATION	102.0	107.4	105.9	104.9	111.7	111.0	113.3	112.7
BASELINE PLUS PROJECT	94.5	95.2	94.3	94.5	95.1	95.4	96.6	96.9

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.60		.84		.59		.54	
PROJECT IN-MIGRATION	-.83	-.76	-11.13	-10.57	1.24	1.25	.52	.51
BASELINE PLUS PROJECT	.52	.49	.22	-.04	.61	.63	.54	.54

TABLE C.55. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Retrievable Waste Storage Facility (RWSF)

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	3.1	4.7	1.8	2.8	2.1	3.3	2.3	3.6
NURSES	8.2	12.6	4.7	7.4	5.7	8.9	6.2	9.6
DENTISTS	1.0	1.5	.6	.9	.7	1.1	.7	1.2
HOSPITAL BEDS	10.6	16.2	6.1	9.5	7.3	11.5	7.9	12.4
NURSING CARE BEDS	3.1	4.6	2.6	4.0	4.6	7.1	7.2	11.3
EDUCATION								
TEACHERS: K-8	20.9	32.3	16.1	25.0	15.6	24.8	10.9	17.1
TEACHERS: 9-12	19.7	29.5	13.0	20.4	12.9	20.0	9.3	14.6
CLASSROOM SPACE: (SQUARE METERS 9-12)	5189.3	7760.7	3408.7	5373.7	3394.9	5265.6	2444.1	3834.0
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	1814.5	2762.1	1040.3	1628.3	1252.7	1964.2	1355.0	2120.4
SOLID WASTE (VEHICLES)	.4	.5	.2	.3	.2	.4	.3	.4
SOLID WASTE (PERSONNEL)	1.1	1.6	.6	.9	.7	1.1	.8	1.2
LIQUID WASTE (CUBIC METERS/DAY)	1209.7	1841.4	693.5	1085.5	835.1	1309.5	903.4	1413.6
FIRE AND POLICE								
FIREMEN	2.1	3.3	1.2	1.9	1.5	2.3	1.6	2.5
POLICEMEN	6.4	9.7	3.7	5.7	4.4	6.9	4.8	7.5
RECREATION								
PLAYGROUNDS (HECTARES)	1.3	1.9	.7	1.1	.9	1.4	.9	1.5
NEIGHBORHOOD PARKS (")	1.1	1.6	.6	1.0	.7	1.2	.8	1.3
COMMUNITY PARKS (")	1.6	2.4	.9	1.4	1.1	1.7	1.2	1.9
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	186.6	284.1	107.0	167.5	128.9	202.0	139.4	218.1
GOVERNMENT								
ADMINISTRATIVE STAFF	2.9	4.4	1.6	2.6	2.0	3.1	2.1	3.4

TABLE C.56. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Retrievable Waste Storage Facility (RWSF)

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1060	1060	164	164	164	164	164	164
BASELINE	21252		23102		26273		28604	
PROJECT IN-MIGRATION (CUMULATIVE)	156	2201	149	1527	174	1827	194	1981
BASELINE PLUS PROJECT	21407	23453	23251	24629	26447	28100	28798	30585
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.7	9.4	.6	6.2	.7	6.5	.7	6.5
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		33.2	
PROJECT IN-MIGRATION	23.1	23.5	23.5	22.5	33.0	32.3	37.6	37.9
BASELINE PLUS PROJECT	25.5	25.2	26.8	26.5	30.2	30.4	33.2	33.5
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		45.6	
PROJECT IN-MIGRATION	43.6	37.3	56.1	52.4	28.8	33.1	30.7	27.2
BASELINE PLUS PROJECT	59.7	57.4	60.6	60.1	49.6	48.5	45.5	44.2
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	103.2	136.5	110.2	127.9	113.4	120.1	112.7
BASELINE PLUS PROJECT	93.7	94.2	94.3	95.0	95.3	96.2	95.7	96.6

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.85		1.67		.86		.57	
PROJECT IN-MIGRATION	.63	-.30	-.89	-7.31	1.05	1.20	.73	.54
BASELINE PLUS PROJECT	.85	.76	1.65	.98	.86	.88	.57	.57

TABLE C.57. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Retrievable Waste Storage Facility (RWSF)

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.1	1.9	.1	1.3	.1	1.6	.2	1.7
NURSES	.5	6.5	.4	4.5	.5	5.4	.6	5.8
DENTISTS	.0	.6	.0	.4	.0	.5	.1	.5
HOSPITAL BEDS	.6	8.2	.6	5.7	.6	6.8	.7	7.4
NURSING CARE BEDS	.1	2.0	.2	1.8	.3	3.2	.6	5.3
EDUCATION								
TEACHERS: K-8	1.1	14.5	1.4	13.4	1.0	12.6	1.0	9.5
TEACHERS: 9-12	1.0	13.5	.8	10.2	1.0	10.5	.7	7.8
CLASSROOM SPACE: (SQUARE METERS 9-12)	254.6	3559.2	199.4	2685.1	271.6	2759.0	193.4	2045.8
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	88.3	1249.6	84.5	866.9	98.9	1037.2	110.3	1124.8
SOLID WASTE (VEHICLES)	.0	.2	.0	.2	.0	.2	.0	.2
SOLID WASTE (PERSONNEL)	.1	.7	.0	.5	.1	.6	.1	.7
LIQUID WASTE (CUBIC METERS/DAY)	58.9	833.1	56.3	578.0	65.9	691.5	73.5	749.9
FIRE AND POLICE								
FIREMEN	.1	1.5	.1	1.0	.1	1.2	.1	1.3
POLICEMEN	.3	4.4	.3	3.1	.3	3.7	.4	4.0
RECREATION								
PLAYGROUNDS (HECTARES)	.1	.9	.1	.6	.1	.7	.1	.8
NEIGHBORHOOD PARKS (")	.1	.7	.1	.5	.1	.6	.1	.7
COMMUNITY PARKS (")	.1	1.1	.1	.8	.1	.9	.1	1.0
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	7.2	102.1	6.9	70.9	8.1	84.8	9.0	91.9
GOVERNMENT								
ADMINISTRATIVE STAFF	.1	2.0	.1	1.4	.2	1.6	.2	1.8

TABLE C.58. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Retrievable Waste Storage Facility (RWSF)

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1060	1060	164	164	164	164	164	164
BASELINE	60376		72697		89545		98006	
PROJECT IN-MIGRATION (CUMULATIVE)	31	666	268	947	313	1125	353	1268
BASELINE PLUS PROJECT	60407	61042	72965	73644	89858	90670	98359	99274
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.1	1.1	.4	1.3	.3	1.2	.4	1.3
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.1	22.3	24.4	33.4	33.5	39.1	38.1
BASELINE PLUS PROJECT	27.8	27.7	29.3	29.3	35.1	35.1	36.1	36.2
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		48.2	
PROJECT IN-MIGRATION	43.6	43.6	62.0	52.3	27.4	31.3	27.7	35.5
BASELINE PLUS PROJECT	51.2	51.1	47.5	47.5	42.9	42.8	48.1	48.0
SEX RATIO								
BASELINE	99.4		99.3		98.9		96.6	
PROJECT IN-MIGRATION	157.7	157.7	131.4	140.4	127.9	131.0	124.9	122.0
BASELINE PLUS PROJECT	99.4	99.8	99.4	99.7	99.0	99.3	96.7	96.9

	PERIOD AND IMPACT CONDITION							
	1980-2015		1980-1985		1985-2000		2000-2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.38		3.71		1.39		.60	
PROJECT IN-MIGRATION	6.95	1.84	43.09	7.04	1.06	1.15	.80	.80
BASELINE PLUS PROJECT	1.39	1.39	3.78	3.75	1.39	1.39	.60	.60

TABLE C.59. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Retrievable Waste Storage Facility (RWSF)

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2015	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.0	.9	.4	1.3	.4	1.5	.5	1.7
NURSES	.2	3.3	1.3	4.7	1.6	5.6	1.7	6.3
DENTISTS	.0	.4	.2	.5	.2	.6	.2	.7
HOSPITAL BEDS	.2	3.9	1.6	5.6	1.8	6.6	2.1	7.5
NURSING CARE BEDS	.0	.8	1.0	2.4	1.9	5.9	3.0	11.9
EDUCATION								
TEACHERS: K-8	.2	4.8	2.6	8.6	1.7	6.6	1.6	6.8
TEACHERS: 9-12	.2	4.1	1.5	4.4	2.0	5.9	1.3	4.5
CLASSROOM SPACE: (SQUARE METERS 9-12)	50.8	1089.4	400.7	1167.6	534.7	1561.6	339.1	1189.6
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	17.6	378.0	151.9	537.5	178.0	638.7	200.6	720.0
SOLID WASTE (VEHICLES)	.0	.1	.0	.1	.0	.1	.0	.1
SOLID WASTE (PERSONNEL)	.0	.2	.1	.3	.1	.4	.1	.4
LIQUID WASTE (CUBIC METERS/DAY)	11.7	252.0	101.3	358.3	118.6	425.8	133.8	480.0
FIRE AND POLICE								
FIREMEN	.0	.4	.2	.6	.2	.8	.2	.8
POLICEMEN	.1	1.3	.5	1.9	.6	2.3	.7	2.5
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.3	.1	.4	.1	.4	.1	.5
NEIGHBORHOOD PARKS (")	.0	.2	.1	.3	.1	.4	.1	.4
COMMUNITY PARKS (")	.0	.3	.1	.5	.2	.6	.2	.6
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	1.3	28.6	11.5	40.7	13.5	48.4	15.2	54.5
GOVERNMENT								
ADMINISTRATIVE STAFF	.0	.6	.2	.9	.3	1.0	.3	1.1

TABLE C.60. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Waste Repository, Salt Formation: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1570	1570	1000	1000	1000	1000	1000	1000
BASELINE	44243		46133		50382		51838	
PROJECT IN-MIGRATION (CUMULATIVE)	4926	7340	5768	12065	6871	14502	7034	14807
BASELINE PLUS PROJECT	49169	51583	51901	58198	57253	64883	58872	66645
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	10.0	14.2	11.1	20.7	12.0	22.4	11.9	22.2
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		31.6	
PROJECT IN-MIGRATION	23.5	23.5	22.0	21.9	32.7	32.4	35.8	35.6
BASELINE PLUS PROJECT	26.4	26.2	27.4	26.7	31.4	31.5	32.1	32.5
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		49.1	
PROJECT IN-MIGRATION	37.0	37.9	57.4	54.7	31.2	33.4	27.3	28.0
BASELINE PLUS PROJECT	58.6	57.6	65.9	64.4	50.2	48.4	46.1	43.9
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.0	
PROJECT IN-MIGRATION	101.6	107.0	113.5	106.2	116.6	112.0	117.2	113.1
BASELINE PLUS PROJECT	94.7	95.7	95.9	96.3	96.8	98.1	97.4	98.8

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.63		.84		.59		.57	
PROJECT IN-MIGRATION	1.42	2.81	3.16	9.94	1.17	1.23	.47	.42
BASELINE PLUS PROJECT	.72	1.02	1.08	2.41	.65	.72	.56	.54

TABLE C.61. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Waste Repository, Salt Formation: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	4.7	7.0	5.5	11.6	6.6	13.9	6.8	14.2
NURSES	12.7	18.9	14.9	31.1	17.7	37.4	18.1	38.2
DENTISTS	1.5	2.3	1.8	3.7	2.1	4.5	2.2	4.6
HOSPITAL BEDS	16.4	24.4	19.2	40.1	22.8	48.1	23.4	49.2
NURSING CARE BEDS	4.9	7.0	8.6	17.5	15.0	30.4	17.3	35.1
EDUCATION								
TEACHERS: K-8	32.2	48.7	52.7	106.9	44.4	101.0	37.8	83.5
TEACHERS: 9-12	30.4	44.6	38.5	85.7	42.6	86.5	34.9	77.9
CLASSROOM SPACE: (SQUARE METERS 9-12)	8009.7	11726.9	10136.1	22552.7	11218.2	22771.4	9195.5	20491.7
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	2796.7	4167.1	3275.0	6849.8	3901.1	8233.3	3993.5	8406.4
SOLID WASTE (VEHICLES)	.5	.8	.6	1.3	.8	1.6	.8	1.6
SOLID WASTE (PERSONNEL)	1.6	2.4	1.9	4.0	2.3	4.8	2.3	4.9
LIQUID WASTE (CUBIC METERS/DAY)	1864.5	2778.1	2183.3	4566.6	2600.7	5488.8	2662.3	5604.3
FIRE AND POLICE								
FIREMEN	3.3	4.9	3.9	8.1	4.6	9.7	4.7	9.9
POLICEMEN	9.9	14.7	11.5	24.1	13.7	29.0	14.1	29.6
RECREATION								
PLAYGROUNDS (HECTARES)	1.9	2.9	2.3	4.7	2.7	5.7	2.8	5.8
NEIGHBORHOOD PARKS (*)	1.7	2.5	1.9	4.1	2.3	4.9	2.4	5.0
COMMUNITY PARKS (*)	2.5	3.7	2.9	6.0	3.4	7.2	3.5	7.4
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	287.7	428.6	336.9	704.6	401.3	846.9	410.8	864.7
GOVERNMENT								
ADMINISTRATIVE STAFF	4.4	6.6	5.2	10.9	6.2	13.1	6.3	13.3

TABLE C.62. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Waste Repository, Salt Formation: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1570	1570	1000	1000	1000	1000	1000	1000
BASELINE	21252		23102		26273		27127	
PROJECT IN-MIGRATION (CUMULATIVE)	294	3764	681	6849	796	8194	821	8378
BASELINE PLUS PROJECT	21545	25016	23783	29952	27069	34467	27948	35505
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.4	15.0	2.9	22.9	2.9	23.8	2.9	23.6
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		31.0	
PROJECT IN-MIGRATION	23.1	23.5	22.6	22.0	33.1	32.4	35.7	35.3
BASELINE PLUS PROJECT	25.5	24.9	26.7	25.5	30.3	30.9	31.1	32.1
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		46.6	
PROJECT IN-MIGRATION	43.6	36.7	60.7	54.3	26.7	32.1	26.0	27.2
BASELINE PLUS PROJECT	59.6	55.9	60.7	59.2	48.9	45.1	45.9	41.5
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	100.0	132.4	107.6	126.9	112.4	125.6	113.2
BASELINE PLUS PROJECT	94.0	94.3	95.0	97.0	95.9	99.0	96.2	99.4

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.98		1.67		.86		.64	
PROJECT IN-MIGRATION	4.11	3.20	16.82	11.97	1.04	1.19	.63	.45
BASELINE PLUS PROJECT	1.04	1.40	1.98	3.60	.86	.94	.64	.59

TABLE C.63. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Waste Repository, Salt Formation: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.3	3.2	.6	5.9	.7	7.0	.7	7.2
NURSES	.9	11.1	2.0	20.1	2.3	24.1	2.4	24.6
DENTISTS	.1	1.0	.2	1.8	.2	2.2	.2	2.3
HOSPITAL BEDS	1.1	14.0	2.5	25.5	3.0	30.6	3.1	31.3
NURSING CARE BEDS	.1	3.5	.9	9.1	1.6	15.1	1.8	17.3
EDUCATION								
TEACHERS: K-8	2.1	24.5	6.5	60.7	4.3	56.1	4.1	46.9
TEACHERS: 9-12	1.8	23.4	3.8	47.8	5.2	49.2	3.5	43.6
CLASSROOM SPACE: (SQUARE METERS 9-12)	480.5	6153.5	996.5	12580.4	1362.0	12962.6	928.3	11477.9
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	166.7	2137.2	386.6	3888.6	451.7	4652.0	466.2	4756.7
SOLID WASTE (VEHICLES)	.0	.4	.1	.8	.1	.9	.1	.9
SOLID WASTE (PERSONNEL)	.1	1.2	.2	2.3	.3	2.7	.3	2.8
LIQUID WASTE (CUBIC METERS/DAY)	111.1	1424.8	257.7	2592.4	301.2	3101.3	310.8	3171.2
FIRE AND POLICE								
FIREMEN	.2	2.5	.5	4.6	.5	5.5	.6	5.6
POLICEMEN	.6	7.5	1.4	13.7	1.6	16.4	1.6	16.8
RECREATION								
PLAYGROUNDS (HECTARES)	.1	1.5	.3	2.7	.3	3.2	.3	3.3
NEIGHBORHOOD PARKS (")	.1	1.3	.2	2.3	.3	2.8	.3	2.8
COMMUNITY PARKS (")	.1	1.9	.3	3.4	.4	4.1	.4	4.2
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	13.6	174.7	31.6	317.8	36.9	380.2	38.1	388.7
GOVERNMENT								
ADMINISTRATIVE STAFF	.3	3.4	.6	6.2	.7	7.4	.7	7.5

TABLE C.64. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Waste Repository, Salt Formation: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1570	1570	1000	1000	1000	1000	1000	1000
BASELINE	60376		72697		89545		92441	
PROJECT IN-MIGRATION (CUMULATIVE)	111	1214	1571	3693	1839	4345	1895	4495
BASELINE PLUS PROJECT	60487	61590	74269	76390	91383	93890	94335	96935
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.2	2.0	2.1	4.8	2.0	4.6	2.0	4.6
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.2	22.1	23.0	33.4	33.5	36.3	36.0
BASELINE PLUS PROJECT	27.8	27.7	29.2	29.0	35.1	35.1	36.1	36.1
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		39.7	
PROJECT IN-MIGRATION	43.6	43.2	62.8	58.8	27.2	28.6	26.0	27.9
BASELINE PLUS PROJECT	51.2	51.0	47.7	47.9	42.6	42.2	39.4	39.1
SEX RATIO								
BASELINE	99.4		99.3		98.9		98.3	
PROJECT IN-MIGRATION	157.7	151.0	130.7	134.1	127.6	128.8	127.2	127.6
BASELINE PLUS PROJECT	99.4	100.2	99.8	100.7	99.4	100.1	98.8	99.5

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.70		3.71		1.39		.64	
PROJECT IN-MIGRATION	11.35	5.24	53.02	22.25	1.05	1.09	.60	.68
BASELINE PLUS PROJECT	1.78	1.81	4.11	4.31	1.38	1.38	.64	.64

TABLE C.65. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Waste Repository, Salt Formation: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.1	1.6	2.1	4.9	2.4	5.8	2.5	6.0
NURSES	.5	6.0	7.8	18.3	9.1	21.5	9.4	22.2
DENTISTS	.1	.7	.9	2.1	1.0	2.5	1.1	2.6
HOSPITAL BEDS	.7	7.1	9.2	21.7	10.8	25.6	11.1	26.4
NURSING CARE BEDS	.1	1.7	6.3	12.9	11.1	24.9	12.9	29.6
EDUCATION								
TEACHERS: K-8	.8	8.7	15.2	35.0	10.0	24.2	9.2	22.8
TEACHERS: 9-12	.7	7.4	9.1	19.9	12.1	26.5	8.2	18.8
CLASSROOM SPACE: (SQUARE METERS 9-12)	181.5	1941.4	2385.2	5226.4	3182.8	6979.1	2146.5	4958.2
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	63.0	689.0	892.2	2096.5	1044.0	2467.1	1075.7	2551.8
SOLID WASTE (VEHICLES)	.0	.1	.2	.4	.2	.5	.2	.5
SOLID WASTE (PERSONNEL)	.0	.4	.5	1.2	.6	1.4	.6	1.5
LIQUID WASTE (CUBIC METERS/DAY)	42.0	459.4	594.8	1397.7	696.0	1644.7	717.1	1701.2
FIRE AND POLICE								
FIREMEN	.1	.8	1.1	2.5	1.2	2.9	1.3	3.0
POLICEMEN	.2	2.4	3.1	7.4	3.7	8.7	3.8	9.0
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.5	.6	1.5	.7	1.7	.7	1.8
NEIGHBORHOOD PARKS (*)	.0	.4	.5	1.2	.6	1.5	.6	1.5
COMMUNITY PARKS (*)	.1	.6	.8	1.8	.9	2.2	.9	2.2
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	4.8	52.2	67.6	158.8	79.1	186.9	81.5	193.3
GOVERNMENT								
ADMINISTRATIVE STAFF	.1	1.1	1.4	3.3	1.7	3.9	1.7	4.0

TABLE C.66. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Waste Repository, Salt Formation: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1430	1430	688	688	688	688	688	688
BASELINE	44243		46133		50382		51838	
PROJECT IN-MIGRATION (CUMULATIVE)	4451	6660	4351	8495	5193	10213	5314	10429
BASELINE PLUS PROJECT	48694	50903	50484	54628	55575	60594	57152	62267
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	9.1	13.1	8.6	15.6	9.3	16.9	9.3	16.7
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		31.6	
PROJECT IN-MIGRATION	23.5	23.5	22.0	21.9	32.7	32.4	35.7	35.6
BASELINE PLUS PROJECT	26.5	26.2	27.6	27.0	31.3	31.4	32.0	32.3
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		49.1	
PROJECT IN-MIGRATION	37.0	37.9	56.7	54.6	31.7	33.5	27.5	28.1
BASELINE PLUS PROJECT	58.8	57.9	66.1	65.0	51.0	49.6	46.8	45.1
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.0	
PROJECT IN-MIGRATION	101.7	107.1	112.1	106.3	115.7	112.1	116.4	113.1
BASELINE PLUS PROJECT	94.6	95.6	95.3	95.7	96.2	97.2	96.8	97.8

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.63		.84		.59		.57	
PROJECT IN-MIGRATION	.71	1.79	-.46	4.87	1.18	1.23	.46	.42
BASELINE PLUS PROJECT	.64	.81	.72	1.41	.64	.69	.56	.54

TABLE C.67. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Waste Repository, Salt Formation: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	4.3	6.4	4.2	8.2	5.0	9.8	5.1	10.0
NURSES	11.5	17.2	11.2	21.9	13.4	26.3	13.7	26.9
DENTISTS	1.4	2.1	1.3	2.6	1.6	3.2	1.6	3.2
HOSPITAL BEDS	14.8	22.1	14.4	28.2	17.2	33.9	17.6	34.6
NURSING CARE BEDS	4.4	6.3	6.4	12.3	11.2	21.4	13.0	24.7
EDUCATION								
TEACHERS: K-8	29.1	44.2	39.5	75.2	34.1	71.2	28.9	58.9
TEACHERS: 9-12	27.5	40.4	29.4	60.2	31.9	60.7	26.7	54.8
CLASSROOM SPACE: (SQUARE METERS 9-12)	7235.5	10638.2	7725.6	15844.1	8388.2	15986.9	7023.6	14422.1
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	2527.1	3781.4	2470.1	4823.1	2948.2	5798.1	3016.8	5920.9
SOLID WASTE (VEHICLES)	.5	.7	.5	.9	.6	1.1	.6	1.1
SOLID WASTE (PERSONNEL)	1.5	2.2	1.4	2.8	1.7	3.4	1.8	3.4
LIQUID WASTE (CUBIC METERS/DAY)	1684.7	2521.0	1646.8	3215.4	1965.5	3865.4	2011.2	3947.3
FIRE AND POLICE								
FIREMEN	3.0	4.5	2.9	5.7	3.5	6.8	3.6	7.0
POLICEMEN	8.9	13.3	8.7	17.0	10.4	20.4	10.6	20.9
RECREATION								
PLAYGROUNDS (HECTARES)	1.7	2.6	1.7	3.3	2.0	4.0	2.1	4.1
NEIGHBORHOOD PARKS (")	1.5	2.2	1.5	2.9	1.7	3.4	1.8	3.5
COMMUNITY PARKS (")	2.2	3.3	2.2	4.2	2.6	5.1	2.6	5.2
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	259.9	389.0	254.1	496.1	303.3	596.4	310.3	609.0
GOVERNMENT								
ADMINISTRATIVE STAFF	4.0	6.0	3.9	7.6	4.7	9.2	4.8	9.4

TABLE C.68. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Waste Repository, Salt Formation: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1430	1430	688	688	688	688	688	688
BASELINE	21252		23102		26273		27127	
PROJECT IN-MIGRATION (CUMULATIVE)	256	3335	487	4578	569	5471	588	5598
BASELINE PLUS PROJECT	21507	24587	23589	27680	26842	31744	27714	32725
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.2	13.6	2.1	16.5	2.1	17.2	2.1	17.1
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		31.0	
PROJECT IN-MIGRATION	23.1	23.5	22.7	22.1	33.1	32.4	35.6	35.3
BASELINE PLUS PROJECT	25.5	25.0	26.7	25.9	30.3	30.7	31.1	31.8
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		46.6	
PROJECT IN-MIGRATION	43.6	36.8	60.0	54.3	27.0	32.0	26.4	27.3
BASELINE PLUS PROJECT	59.6	56.3	60.7	59.6	49.2	46.4	46.1	42.9
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	100.6	133.0	109.0	127.1	113.1	125.6	113.7
BASELINE PLUS PROJECT	93.9	94.3	94.8	96.4	95.7	98.0	96.0	98.4

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.98		1.67		.86		.64	
PROJECT IN-MIGRATION	3.33	2.07	12.89	6.34	1.04	1.19	.64	.46
BASELINE PLUS PROJECT	1.01	1.14	1.85	2.37	.86	.91	.64	.61

TABLE C.69. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Waste Repository, Salt Formation: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.2	2.9	.4	3.9	.5	4.7	.5	4.8
NURSES	.8	9.8	1.4	13.5	1.7	16.1	1.7	16.5
DENTISTS	.1	.9	.1	1.2	.2	1.5	.2	1.5
HOSPITAL BEDS	1.0	12.4	1.8	17.1	2.1	20.4	2.2	20.9
NURSING CARE BEDS	.1	3.1	.6	6.0	1.1	10.0	1.3	11.5
EDUCATION								
TEACHERS: K-8	1.8	21.7	4.7	40.6	3.1	37.1	3.0	31.3
TEACHERS: 9-12	1.6	20.7	2.7	31.5	3.7	32.8	2.5	28.8
CLASSROOM SPACE: (SQUARE METERS 9-12)	418.4	5441.3	703.6	8279.6	961.1	8628.3	661.3	7587.3
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	145.2	1893.5	276.5	2599.2	323.2	3106.3	333.7	3178.3
SOLID WASTE (VEHICLES)	.0	.4	.1	.5	.1	.6	.1	.6
SOLID WASTE (PERSONNEL)	.1	1.1	.2	1.5	.2	1.8	.2	1.8
LIQUID WASTE (CUBIC METERS/DAY)	96.8	1262.4	184.4	1732.8	215.5	2070.8	222.5	2118.8
FIRE AND POLICE								
FIREMEN	.2	2.2	.3	3.1	.4	3.7	.4	3.8
POLICEMEN	.5	6.7	1.0	9.2	1.1	10.9	1.2	11.2
RECREATION								
PLAYGROUNDS (HECTARES)	.1	1.3	.2	1.8	.2	2.1	.2	2.2
NEIGHBORHOOD PARKS (")	.1	1.1	.2	1.5	.2	1.8	.2	1.9
COMMUNITY PARKS (")	.1	1.7	.2	2.3	.3	2.7	.3	2.8
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	11.9	154.8	22.6	212.4	26.4	253.9	27.3	259.7
GOVERNMENT								
ADMINISTRATIVE STAFF	.2	3.0	.4	4.1	.5	4.9	.5	5.0

TABLE C.70. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Waste Repository, Salt Formation: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1430	1430	688	688	688	688	688	688
BASELINE	60376		72697		89545		92441	
PROJECT IN-MIGRATION (CUMULATIVE)	66	983	1073	2580	1255	3043	1293	3152
BASELINE PLUS PROJECT	60442	61359	73771	75278	90800	92587	93734	95592
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.1	1.6	1.5	3.4	1.4	3.3	1.4	3.3
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.1	22.1	23.3	33.4	33.5	36.3	35.9
BASELINE PLUS PROJECT	27.8	27.7	29.2	29.1	35.1	35.1	36.1	36.1
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		39.7	
PROJECT IN-MIGRATION	43.6	43.6	63.0	57.5	27.1	29.2	26.0	28.6
BASELINE PLUS PROJECT	51.2	51.0	47.6	47.7	42.7	42.4	39.5	39.3
SEX RATIO								
BASELINE	99.4		99.3		98.9		98.3	
PROJECT IN-MIGRATION	157.7	157.7	130.6	135.4	127.6	129.3	127.2	127.7
BASELINE PLUS PROJECT	99.4	100.1	99.7	100.3	99.3	99.8	98.7	99.2

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.70		3.71		1.39		.64	
PROJECT IN-MIGRATION	11.91	4.66	55.82	19.31	1.05	1.10	.60	.70
BASELINE PLUS PROJECT	1.76	1.77	3.99	4.09	1.38	1.38	.64	.64

TABLE C.71. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Waste Repository, Salt Formation: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.1	1.3	1.4	3.4	1.7	4.0	1.7	4.2
NURSES	.3	4.9	5.3	12.8	6.2	15.1	6.4	15.6
DENTISTS	.0	.6	.6	1.5	.7	1.7	.7	1.8
HOSPITAL BEDS	.4	5.8	6.3	15.2	7.4	17.9	7.6	18.5
NURSING CARE BEDS	.1	1.1	4.3	8.5	7.6	17.1	8.8	20.5
EDUCATION								
TEACHERS: K-8	.5	7.1	10.4	24.3	6.8	17.1	6.3	16.2
TEACHERS: 9-12	.4	6.1	6.2	13.5	8.3	18.1	5.6	13.1
CLASSROOM SPACE: (SQUARE METERS 9-12)	107.8	1607.9	1633.3	3556.9	2179.4	4751.1	1466.8	3443.2
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	37.4	557.9	609.2	1465.1	712.8	1727.5	734.3	1789.3
SOLID WASTE (VEHICLES)	.0	.1	.1	.3	.1	.3	.1	.3
SOLID WASTE (PERSONNEL)	.0	.3	.4	.9	.4	1.0	.4	1.0
LIQUID WASTE (CUBIC METERS/DAY)	24.9	371.9	406.2	976.7	475.2	1151.7	489.5	1192.9
FIRE AND POLICE								
FIREMEN	.0	.7	.7	1.7	.8	2.0	.9	2.1
POLICEMEN	.1	2.0	2.1	5.2	2.5	6.1	2.6	6.3
RECREATION								
PLAYGROUNDS (HECTARES)	.0	.4	.4	1.0	.5	1.2	.5	1.2
NEIGHBORHOOD PARKS (")	.0	.3	.4	.9	.4	1.0	.4	1.1
COMMUNITY PARKS (")	.0	.5	.5	1.3	.6	1.5	.6	1.6
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	2.8	42.3	46.1	111.0	54.0	130.8	55.6	135.5
GOVERNMENT								
ADMINISTRATIVE STAFF	.1	.9	1.0	2.3	1.1	2.7	1.2	2.8

TABLE C.72. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Waste Repository, Granite: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	3140	3140	1200	1200	1200	1200	1200	1200
BASELINE	44243		46133		50382		51838	
PROJECT IN-MIGRATION (CUMULATIVE)	10251	14958	9413	16355	11283	19687	11533	20099
BASELINE PLUS PROJECT	54494	59201	55546	62488	61665	70068	63371	71937
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	18.8	25.3	16.9	26.2	18.3	28.1	18.2	27.9
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		31.6	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	32.5	32.4	35.6	35.5
BASELINE PLUS PROJECT	25.9	25.6	27.0	26.3	31.5	31.6	32.4	32.8
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		49.1	
PROJECT IN-MIGRATION	36.9	37.8	55.4	54.1	32.8	33.9	27.9	28.3
BASELINE PLUS PROJECT	56.1	54.7	65.0	63.5	49.1	47.3	44.7	42.6
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.0	
PROJECT IN-MIGRATION	101.2	106.5	108.8	105.5	113.6	111.5	114.5	112.6
BASELINE PLUS PROJECT	95.3	97.0	96.3	96.8	97.7	98.9	98.3	99.6

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.63		.84		.59		.57	
PROJECT IN-MIGRATION	.47	1.18	-1.71	1.79	1.21	1.24	.44	.41
BASELINE PLUS PROJECT	.60	.78	.38	1.08	.70	.76	.55	.53

TABLE C.73. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Waste Repository, Granite: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	9.8	14.4	9.0	15.7	10.8	18.9	11.1	19.3
NURSES	26.4	38.6	24.3	42.2	29.1	50.8	29.8	51.9
DENTISTS	3.2	4.6	2.9	5.1	3.5	6.1	3.6	6.2
HOSPITAL BEDS	34.0	49.7	31.3	54.3	37.5	65.4	38.3	66.7
NURSING CARE BEDS	10.2	14.3	13.7	23.4	23.9	40.9	27.7	47.4
EDUCATION								
TEACHERS: K-8	66.9	99.2	84.1	144.0	76.8	138.7	64.2	114.4
TEACHERS: 9-12	63.4	90.9	65.3	116.6	67.9	116.2	59.4	106.3
CLASSROOM SPACE: (SQUARE METERS 9-12)	16692.1	23936.8	17178.4	30688.5	17873.8	30591.5	15643.2	27975.9
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	5820.2	8492.4	5344.4	9285.5	6405.8	11177.0	6547.6	11411.0
SOLID WASTE (VEHICLES)	1.1	1.6	1.0	1.8	1.2	2.2	1.3	2.2
SOLID WASTE (PERSONNEL)	3.4	4.9	3.1	5.4	3.7	6.5	3.8	6.6
LIQUID WASTE (CUBIC METERS/DAY)	3880.1	5661.6	3563.0	6190.3	4270.5	7451.4	4365.1	7607.3
FIRE AND POLICE								
FIREMEN	6.9	10.0	6.3	11.0	7.6	13.2	7.7	13.5
POLICEMEN	20.5	29.9	18.8	32.7	22.6	39.4	23.1	40.2
RECREATION								
PLAYGROUNDS (HECTARES)	4.0	5.9	3.7	6.4	4.4	7.7	4.5	7.9
NEIGHBORHOOD PARKS (")	3.4	5.0	3.2	5.5	3.8	6.6	3.9	6.8
COMMUNITY PARKS (")	5.1	7.5	4.7	8.1	5.6	9.8	5.7	10.0
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	598.7	873.5	549.7	955.1	658.9	1149.7	673.5	1173.8
GOVERNMENT								
ADMINISTRATIVE STAFF	9.2	13.5	8.5	14.7	10.2	17.7	10.4	18.1

TABLE C.74. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Waste Repository, Granite: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	3140	3140	1200	1200	1200	1200	1200	1200
BASELINE	21252		23102		26273		27127	
PROJECT IN-MIGRATION (CUMULATIVE)	719	8577	944	10728	1104	12867	1141	13149
BASELINE PLUS PROJECT	21970	29829	24046	33831	27377	39140	28267	40276
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	3.3	28.8	3.9	31.7	4.0	32.9	4.0	32.6
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		31.0	
PROJECT IN-MIGRATION	23.1	23.5	23.1	22.1	33.1	32.3	35.4	35.3
BASELINE PLUS PROJECT	25.4	24.6	26.7	25.0	30.3	31.1	31.2	32.4
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		46.6	
PROJECT IN-MIGRATION	43.6	36.3	58.2	53.2	27.8	33.0	27.4	27.6
BASELINE PLUS PROJECT	59.2	52.3	60.6	58.2	48.7	43.8	45.7	39.8
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	97.5	134.6	105.8	127.5	111.2	125.6	112.0
BASELINE PLUS PROJECT	95.0	94.5	95.4	97.7	96.3	100.1	96.5	100.6

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.98		1.67		.86		.64	
PROJECT IN-MIGRATION	1.85	1.71	5.45	4.48	1.04	1.21	.66	.43
BASELINE PLUS PROJECT	1.01	1.20	1.81	2.52	.86	.97	.64	.57

TABLE C.75. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Waste Repository, Granite: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.6	7.4	.8	9.2	.9	11.1	1.0	11.3
NURSES	2.1	25.2	2.8	31.5	3.2	37.8	3.4	38.7
DENTISTS	.2	2.3	.3	2.9	.3	3.5	.3	3.6
HOSPITAL BEDS	2.7	32.0	3.5	40.0	4.1	48.0	4.3	49.0
NURSING CARE BEDS	.3	8.2	1.2	13.9	2.1	23.2	2.5	26.7
EDUCATION								
TEACHERS: K-8	5.2	55.3	8.9	93.9	6.1	90.2	5.9	75.0
TEACHERS: 9-12	4.5	53.7	5.0	75.7	6.8	75.8	4.8	69.4
CLASSROOM SPACE: (SQUARE METERS 9-12)	1175.8	14139.7	1318.5	19929.0	1798.7	19945.6	1268.4	18260.5
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	408.0	4869.6	535.7	6091.0	626.7	7305.5	647.6	7465.5
SOLID WASTE (VEHICLES)	.1	.9	.1	1.2	.1	1.4	.1	1.4
SOLID WASTE (PERSONNEL)	.2	2.8	.3	3.5	.4	4.2	.4	4.3
LIQUID WASTE (CUBIC METERS/DAY)	272.0	3246.4	357.2	4060.7	417.8	4870.3	431.8	4977.0
FIRE AND POLICE								
FIREMEN	.5	5.7	.6	7.2	.7	8.6	.8	8.8
POLICEMEN	1.4	17.2	1.9	21.5	2.2	25.7	2.3	26.3
RECREATION								
PLAYGROUNDS (HECTARES)	.3	3.4	.4	4.2	.4	5.1	.4	5.2
NEIGHBORHOOD PARKS (")	.2	2.9	.3	3.6	.4	4.3	.4	4.4
COMMUNITY PARKS (")	.4	4.3	.5	5.3	.5	6.4	.6	6.6
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	33.3	398.0	43.8	497.8	51.2	597.1	52.9	610.1
GOVERNMENT								
ADMINISTRATIVE STAFF	.6	7.7	.8	9.7	1.0	11.6	1.0	11.8

TABLE C.76. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Waste Repository, Granite: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	3140	3140	1200	1200	1200	1200	1200	1200
BASELINE	60376		72697		89545		92441	
PROJECT IN-MIGRATION (CUMULATIVE)	524	6265	2186	10374	2569	12414	2655	12771
BASELINE PLUS PROJECT	60901	66642	74884	83071	92114	101958	95095	105211
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.9	9.4	2.9	12.5	2.8	12.2	2.8	12.1
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.5	22.8	22.6	33.5	32.8	36.1	35.7
BASELINE PLUS PROJECT	27.8	27.2	29.1	28.4	35.1	34.8	36.1	36.0
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		39.7	
PROJECT IN-MIGRATION	43.6	38.0	59.8	55.0	28.2	32.4	27.4	29.2
BASELINE PLUS PROJECT	51.1	49.8	47.7	48.3	42.5	41.6	39.3	38.3
SEX RATIO								
BASELINE	99.4		99.3		98.9		98.3	
PROJECT IN-MIGRATION	157.7	107.5	133.2	118.7	128.5	119.6	127.5	119.5
BASELINE PLUS PROJECT	99.7	100.1	100.1	101.5	99.6	101.2	99.0	100.7

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.70		3.71		1.39		.64	
PROJECT IN-MIGRATION	6.49	2.85	28.55	10.08	1.08	1.20	.66	.57
BASELINE PLUS PROJECT	1.78	1.83	4.13	4.41	1.38	1.37	.64	.63

TABLE C.77. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Waste Repository, Granite: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.7	8.3	2.9	13.8	3.4	16.5	3.5	17.0
NURSES	2.6	31.0	10.8	51.4	12.7	61.4	13.1	63.2
DENTISTS	.3	3.6	1.2	5.9	1.5	7.1	1.5	7.3
HOSPITAL BEDS	3.1	36.8	12.9	61.0	15.1	73.0	15.6	75.1
NURSING CARE BEDS	.6	15.3	7.9	35.6	14.9	67.2	17.6	79.5
EDUCATION								
TEACHERS: K-8	3.8	41.7	20.8	93.9	14.2	80.3	13.3	71.3
TEACHERS: 9-12	3.3	38.0	12.0	64.3	16.0	71.9	11.2	59.9
CLASSROOM SPACE: (SQUARE METERS 9-12)	858.1	9992.1	3152.2	16936.9	4208.5	18912.1	2948.7	15753.9
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	297.7	3557.2	1241.3	5889.8	1458.6	7047.9	1507.2	7250.6
SOLID WASTE (VEHICLES)	.1	.7	.2	1.1	.3	1.4	.3	1.4
SOLID WASTE (PERSONNEL)	.2	2.1	.7	3.4	.8	4.1	.9	4.2
LIQUID WASTE (CUBIC METERS/DAY)	198.5	2371.5	827.5	3926.5	972.4	4698.6	1004.8	4833.7
FIRE AND POLICE								
FIREMEN	.4	4.2	1.5	7.0	1.7	8.3	1.8	8.6
POLICEMEN	1.0	12.5	4.4	20.7	5.1	24.8	5.3	25.5
RECREATION								
PLAYGROUNDS (HECTARES)	.2	2.5	.9	4.1	1.0	4.9	1.0	5.0
NEIGHBORHOOD PARKS (")	.2	2.1	.7	3.5	.9	4.2	.9	4.3
COMMUNITY PARKS (")	.3	3.1	1.1	5.2	1.3	6.2	1.3	6.4
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	22.6	269.4	94.0	446.1	110.5	533.8	114.2	549.1
GOVERNMENT								
ADMINISTRATIVE STAFF	.5	5.6	2.0	9.3	2.3	11.2	2.4	11.5

TABLE C.78. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Waste Repository, Granite: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	4290	4290	800	800	800	800	800	800
BASELINE	60376		72697		89545		95378	
PROJECT IN-MIGRATION (CUMULATIVE)	861	10031	1850	13524	2186	16364	2370	17289
BASELINE PLUS PROJECT	61237	70407	74548	86221	91731	105909	97748	112667
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.4	14.2	2.5	15.7	2.4	15.5	2.4	15.3
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		35.8	
PROJECT IN-MIGRATION	23.1	23.5	23.6	22.6	33.5	32.5	37.2	37.1
BASELINE PLUS PROJECT	27.7	26.9	29.2	28.1	35.1	34.6	35.8	36.1
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		42.1	
PROJECT IN-MIGRATION	43.6	37.2	56.1	52.0	29.7	35.0	30.0	28.2
BASELINE PLUS PROJECT	51.1	49.0	47.6	48.1	42.6	41.7	41.8	39.8
SEX RATIO								
BASELINE	99.4		99.3		98.9		97.5	
PROJECT IN-MIGRATION	157.7	103.0	136.7	111.1	129.7	114.8	125.5	115.1
BASELINE PLUS PROJECT	100.0	99.9	100.0	101.0	99.6	101.2	98.1	100.0

	PERIOD AND IMPACT CONDITION							
	1980-2010		1980-1985		1985-2000		2000-2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.52		3.71		1.39		.63	
PROJECT IN-MIGRATION	3.37	1.81	15.30	5.97	1.11	1.27	.81	.55
BASELINE PLUS PROJECT	1.56	1.57	3.93	4.05	1.38	1.37	.64	.62

TABLE C.79. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Waste Repository, Granite: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	1.1	13.3	2.5	18.0	2.9	21.8	3.2	23.0
NURSES	4.3	49.7	9.2	66.9	10.8	81.0	11.7	85.6
DENTISTS	.5	5.7	1.1	7.7	1.2	9.3	1.4	9.9
HOSPITAL BEDS	5.1	59.0	10.9	79.5	12.9	96.2	13.9	101.7
NURSING CARE BEDS	1.0	25.3	5.7	44.1	12.1	84.5	17.4	118.5
EDUCATION								
TEACHERS: K-8	6.2	65.8	17.3	118.2	12.4	114.8	12.0	88.2
TEACHERS: 9-12	5.4	61.7	9.4	89.3	12.6	89.9	8.8	76.5
CLASSROOM SPACE: (SQUARE METERS 9-12)	1408.8	16235.6	2480.3	23492.8	3314.1	23671.2	2318.3	20128.1
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	488.8	5695.3	1050.6	7678.0	1241.3	9290.8	1345.4	9815.9
SOLID WASTE (VEHICLES)	.1	1.1	.2	1.5	.2	1.8	.3	1.9
SOLID WASTE (PERSONNEL)	.3	3.3	.6	4.5	.7	5.4	.8	5.7
LIQUID WASTE (CUBIC METERS/DAY)	325.9	3796.9	700.4	5118.7	827.6	6193.9	897.0	6543.9
FIRE AND POLICE								
FIREMEN	.6	6.7	1.2	9.1	1.5	11.0	1.6	11.6
POLICEMEN	1.7	20.1	3.7	27.0	4.4	32.7	4.7	34.6
RECREATION								
PLAYGROUNDS (HECTARES)	.3	3.9	.7	5.3	.9	6.4	.9	6.8
NEIGHBORHOOD PARKS (*)	.3	3.4	.6	4.5	.7	5.5	.8	5.8
COMMUNITY PARKS (*)	.4	5.0	.9	6.7	1.1	8.2	1.2	8.6
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	37.0	431.3	79.6	581.5	94.0	703.7	101.9	743.4
GOVERNMENT								
ADMINISTRATIVE STAFF	.8	9.0	1.7	12.2	2.0	14.7	2.1	15.6

TABLE C.80. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Waste Repository, Granite: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	4290	4290	800	800	800	800	800	800
BASELINE	44243		46133		50382		53318	
PROJECT IN-MIGRATION (CUMULATIVE)	14152	20538	10053	14762	12127	17824	12687	18636
BASELINE PLUS PROJECT	58395	64781	56186	60895	62509	68206	66004	71953
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	24.2	31.7	17.9	24.2	19.4	26.1	19.2	25.9
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		32.7	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	32.3	32.3	37.3	37.3
BASELINE PLUS PROJECT	25.6	25.3	26.9	26.4	31.4	31.5	33.6	33.8
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		47.6	
PROJECT IN-MIGRATION	36.9	37.8	53.3	53.0	34.5	34.7	26.2	26.3
BASELINE PLUS PROJECT	54.7	53.1	64.4	63.4	49.2	48.0	42.9	41.4
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.6	
PROJECT IN-MIGRATION	101.1	106.3	104.2	103.8	110.7	110.3	112.4	112.1
BASELINE PLUS PROJECT	95.6	97.7	95.6	96.2	97.4	98.3	98.6	99.6

	PERIOD AND IMPACT CONDITION							
	1980-2010		1980-1985		1985-2000		2000-2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.62		.84		.59		.57	
PROJECT IN-MIGRATION	-.36	-.32	-6.84	-6.60	1.25	1.26	.45	.45
BASELINE PLUS PROJECT	.41	.35	-.77	-1.24	.71	.76	.54	.53

TABLE C.81. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Waste Repository, Granite: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	13.6	19.7	9.7	14.2	11.6	17.1	12.2	17.9
NURSES	36.5	53.0	25.9	38.1	31.3	46.0	32.7	48.1
DENTISTS	4.4	6.4	3.1	4.6	3.8	5.5	3.9	5.8
HOSPITAL BEDS	47.0	68.2	33.4	49.0	40.3	59.2	42.1	61.9
NURSING CARE BEDS	14.0	19.6	14.2	20.6	24.9	36.4	33.6	49.2
EDUCATION								
TEACHERS: K-8	92.3	136.1	87.8	128.4	86.9	128.5	61.9	91.3
TEACHERS: 9-12	87.6	124.9	72.3	106.4	70.6	103.1	57.7	85.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	23051.9	32880.3	19025.2	28000.8	18594.0	27142.2	15192.8	22374.5
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	8034.9	11660.5	5707.8	8381.3	6885.1	10119.5	7202.8	10580.6
SOLID WASTE (VEHICLES)	1.6	2.3	1.1	1.6	1.3	2.0	1.4	2.0
SOLID WASTE (PERSONNEL)	4.7	6.8	3.3	4.9	4.0	5.9	4.2	6.1
LIQUID WASTE (CUBIC METERS/DAY)	5356.6	7773.7	3805.2	5587.5	4590.1	6746.3	4801.9	7053.7
FIRE AND POLICE								
FIREMEN	9.5	13.8	6.7	9.9	8.1	11.9	8.5	12.5
POLICEMEN	28.3	41.1	20.1	29.5	24.3	35.6	25.4	37.3
RECREATION								
PLAYGROUNDS (HECTARES)	5.6	8.1	3.9	5.8	4.8	7.0	5.0	7.3
NEIGHBORHOOD PARKS (")	4.8	6.9	3.4	5.0	4.1	6.0	4.3	6.3
COMMUNITY PARKS (")	7.0	10.2	5.0	7.4	6.0	8.9	6.3	9.3
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	826.5	1199.4	587.1	862.1	708.2	1040.9	740.9	1088.3
GOVERNMENT								
ADMINISTRATIVE STAFF	12.7	18.5	9.0	13.3	10.9	16.0	11.4	16.8

TABLE C.82. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Waste Repository, Granite: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	4290	4290	800	800	800	800	800	800
BASELINE	21252		23102		26273		27935	
PROJECT IN-MIGRATION (CUMULATIVE)	1030	12102	819	11421	960	13741	1034	14373
BASELINE PLUS PROJECT	22281	33354	23922	34524	27233	40014	28969	42309
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	4.6	36.3	3.4	33.1	3.5	34.3	3.6	34.0
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		32.1	
PROJECT IN-MIGRATION	23.1	23.5	23.9	22.2	33.0	32.2	36.1	36.7
BASELINE PLUS PROJECT	25.4	24.4	26.7	25.0	30.3	31.0	32.2	33.7
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		46.1	
PROJECT IN-MIGRATION	43.6	36.2	54.6	51.8	29.5	34.0	30.1	25.7
BASELINE PLUS PROJECT	59.0	50.3	60.5	57.6	48.9	43.9	45.5	38.5
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	96.9	137.9	103.7	128.3	109.8	122.5	110.9
BASELINE PLUS PROJECT	95.6	94.6	95.3	97.2	96.1	99.9	96.4	100.5

	PERIOD AND IMPACT CONDITION							
	1980-2010		1980-1985		1985-2000		2000-2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.91		1.67		.86		.61	
PROJECT IN-MIGRATION	.01	.57	-4.57	-1.16	1.06	1.23	.74	.45
BASELINE PLUS PROJECT	.87	.79	1.42	.69	.86	.98	.62	.56

TABLE C.83. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Waste Repository, Granite: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.9	10.4	.7	9.8	.8	11.8	.9	12.4
NURSES	3.0	35.6	2.4	33.6	2.8	40.4	3.0	42.3
DENTISTS	.3	3.3	.2	3.1	.3	3.7	.3	3.9
HOSPITAL BEDS	3.8	45.1	3.1	42.6	3.6	51.3	3.9	53.6
NURSING CARE BEDS	.4	11.6	.8	14.3	1.7	24.2	2.4	32.4
EDUCATION								
TEACHERS: K-8	7.4	77.9	7.6	98.5	5.5	99.1	5.5	71.2
TEACHERS: 9-12	6.4	75.9	4.0	81.7	5.5	78.9	3.9	66.2
CLASSROOM SPACE: (SQUARE METERS 9-12)	1685.2	19989.6	1063.5	21509.7	1446.4	20767.2	1031.0	17414.2
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	584.7	6871.0	465.2	6484.4	545.0	7801.7	586.8	8160.5
SOLID WASTE (VEHICLES)	.1	1.3	.1	1.3	.1	1.5	.1	1.6
SOLID WASTE (PERSONNEL)	.3	4.0	.3	3.8	.3	4.5	.3	4.7
LIQUID WASTE (CUBIC METERS/DAY)	389.8	4580.7	310.1	4322.9	363.3	5201.1	391.2	5440.3
FIRE AND POLICE								
FIREMEN	.7	8.1	.5	7.7	.6	9.2	.7	9.6
POLICEMEN	2.1	24.2	1.6	22.8	1.9	27.5	2.1	28.7
RECREATION								
PLAYGROUNDS (HECTARES)	.4	4.8	.3	4.5	.4	5.4	.4	5.6
NEIGHBORHOOD PARKS (")	.3	4.1	.3	3.8	.3	4.6	.3	4.8
COMMUNITY PARKS (")	.5	6.0	.4	5.7	.5	6.8	.5	7.2
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	47.8	561.5	38.0	529.9	44.5	637.6	48.0	666.9
GOVERNMENT								
ADMINISTRATIVE STAFF	.9	10.9	.7	10.3	.9	12.4	.9	12.9

TABLE C.84. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Waste Repository, Shale: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1860	1860	1000	1000	1000	1000	1000	1000
BASELINE	60376		72697		89545		92441	
PROJECT IN-MIGRATION (CUMULATIVE)	150	2089	1601	4668	1875	5492	1933	5680
BASELINE PLUS PROJECT	60526	62465	74299	77366	91420	95037	94373	98120
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.2	3.3	2.2	6.0	2.1	5.8	2.0	5.8
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.4	22.2	22.9	33.4	33.5	36.3	36.1
BASELINE PLUS PROJECT	27.8	27.6	29.2	28.9	35.1	35.0	36.1	36.1
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		39.7	
PROJECT IN-MIGRATION	43.6	41.9	62.4	59.0	27.3	28.6	26.2	27.8
BASELINE PLUS PROJECT	51.2	50.8	47.7	48.1	42.6	42.0	39.4	38.9
SEX RATIO								
BASELINE	99.4		99.3		98.9		98.3	
PROJECT IN-MIGRATION	157.7	133.7	131.0	134.0	127.8	128.8	127.3	127.6
BASELINE PLUS PROJECT	99.5	100.3	99.8	101.1	99.4	100.4	98.8	99.8

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.70		3.71		1.39		.64	
PROJECT IN-MIGRATION	10.23	4.00	47.38	16.08	1.05	1.08	.61	.67
BASELINE PLUS PROJECT	1.78	1.81	4.10	4.28	1.38	1.37	.64	.64

TABLE C.85. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Waste Repository, Shale: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.2	2.8	2.1	6.2	2.5	7.3	2.6	7.6
NURSES	.7	10.3	7.9	23.1	9.3	27.2	9.6	28.1
DENTISTS	.1	1.2	.9	2.7	1.1	3.1	1.1	3.2
HOSPITAL BEDS	.9	12.3	9.4	27.4	11.0	32.3	11.4	33.4
NURSING CARE BEDS	.2	4.2	6.3	16.4	11.2	31.5	13.1	37.4
EDUCATION								
TEACHERS: K-8	1.1	14.8	15.5	44.3	10.2	30.6	9.5	28.7
TEACHERS: 9-12	.9	11.9	9.2	25.2	12.2	33.6	8.3	23.8
CLASSROOM SPACE: (SQUARE METERS 9-12)	245.2	3122.9	2414.0	6626.4	3221.5	8848.4	2183.6	6272.4
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	85.1	1186.0	909.1	2650.4	1064.5	3118.2	1097.2	3224.8
SOLID WASTE (VEHICLES)	.0	.2	.2	.5	.2	.6	.2	.6
SOLID WASTE (PERSONNEL)	.0	.7	.5	1.5	.6	1.8	.6	1.9
LIQUID WASTE (CUBIC METERS/DAY)	56.7	790.7	606.1	1766.9	709.7	2078.8	731.5	2149.8
FIRE AND POLICE								
FIREMEN	.1	1.4	1.1	3.1	1.3	3.7	1.3	3.8
POLICEMEN	.3	4.2	3.2	9.3	3.7	11.0	3.9	11.4
RECREATION								
PLAYGROUNDS (HECTARES)	.1	.8	.6	1.8	.7	2.2	.8	2.2
NEIGHBORHOOD PARKS (")	.1	.7	.5	1.6	.6	1.8	.6	1.9
COMMUNITY PARKS (")	.1	1.0	.8	2.3	.9	2.7	1.0	2.8
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	6.4	89.8	68.9	200.7	80.6	236.2	83.1	244.2
GOVERNMENT								
ADMINISTRATIVE STAFF	.1	1.9	1.4	4.2	1.7	4.9	1.7	5.1

TABLE C.86. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Waste Repository, Shale: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1860	1860	1000	1000	1000	1000	1000	1000
BASELINE	21252		23102		26273		27127	
PROJECT IN-MIGRATION (CUMULATIVE)	372	4653	708	7324	828	8767	854	8964
BASELINE PLUS PROJECT	21624	25905	23810	30426	27101	35040	27981	36090
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.7	18.0	3.0	24.1	3.1	25.0	3.1	24.8
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		31.0	
PROJECT IN-MIGRATION	23.1	23.5	22.7	22.1	33.1	32.3	35.6	35.3
BASELINE PLUS PROJECT	25.5	24.9	26.7	25.5	30.3	30.9	31.1	32.1
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		46.6	
PROJECT IN-MIGRATION	43.6	36.6	60.0	54.0	27.0	32.4	26.4	27.3
BASELINE PLUS PROJECT	59.5	55.1	60.6	59.0	48.9	45.0	45.9	41.3
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	99.1	133.0	107.2	127.1	112.1	125.6	112.9
BASELINE PLUS PROJECT	94.2	94.4	95.1	97.1	96.0	99.1	96.3	99.5

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.98		1.67		.86		.64	
PROJECT IN-MIGRATION	3.33	2.62	12.87	9.07	1.04	1.20	.64	.44
BASELINE PLUS PROJECT	1.03	1.33	1.93	3.22	.86	.94	.64	.59

TABLE C.87. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Waste Repository, Shale: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.3	4.0	.6	6.3	.7	7.5	.7	7.7
NURSES	1.1	13.7	2.1	21.5	2.4	25.8	2.5	26.4
DENTISTS	.1	1.3	.2	2.0	.2	2.4	.2	2.4
HOSPITAL BEDS	1.4	17.4	2.6	27.3	3.1	32.7	3.2	33.4
NURSING CARE BEDS	.2	4.4	.9	9.7	1.6	16.0	1.9	18.4
EDUCATION								
TEACHERS: K-8	2.7	30.2	6.8	64.7	4.5	60.4	4.3	50.5
TEACHERS: 9-12	2.3	29.0	3.9	51.2	5.3	52.4	3.7	46.8
CLASSROOM SPACE: (SQUARE METERS 9-12)	608.9	7628.6	1022.8	13480.0	1397.2	13786.3	961.4	12318.1
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	211.3	2641.9	402.0	4158.2	469.9	4977.7	485.1	5089.2
SOLID WASTE (VEHICLES)	.0	.5	.1	.8	.1	1.0	.1	1.0
SOLID WASTE (PERSONNEL)	.1	1.5	.2	2.4	.3	2.9	.3	3.0
LIQUID WASTE (CUBIC METERS/DAY)	140.8	1761.3	268.0	2772.1	313.2	3318.5	323.4	3392.8
FIRE AND POLICE								
FIREMEN	.2	3.1	.5	4.9	.6	5.9	.6	6.0
POLICEMEN	.7	9.3	1.4	14.6	1.7	17.5	1.7	17.9
RECREATION								
PLAYGROUNDS (HECTARES)	.1	1.8	.3	2.9	.3	3.4	.3	3.5
NEIGHBORHOOD PARKS (")	.1	1.6	.2	2.5	.3	2.9	.3	3.0
COMMUNITY PARKS (")	.2	2.3	.4	3.6	.4	4.4	.4	4.5
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	17.3	215.9	32.9	339.8	38.4	406.8	39.6	415.9
GOVERNMENT								
ADMINISTRATIVE STAFF	.3	4.2	.6	6.6	.7	7.9	.8	8.1

TABLE C.88. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Waste Repository, Shale: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	1860	1860	1000	1000	1000	1000	1000	1000
BASELINE	44243		46133		50382		51838	
PROJECT IN-MIGRATION (CUMULATIVE)	5910	8747	6304	12457	7525	14979	7699	15294
BASELINE PLUS PROJECT	50153	52990	52437	58590	57906	65360	59538	67132
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	11.8	16.5	12.0	21.3	13.0	22.9	12.9	22.8
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		31.6	
PROJECT IN-MIGRATION	23.5	23.5	22.0	21.9	32.7	32.4	35.7	35.6
BASELINE PLUS PROJECT	26.3	26.1	27.3	26.6	31.4	31.5	32.2	32.6
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		49.1	
PROJECT IN-MIGRATION	37.0	37.9	56.7	54.5	31.7	33.5	27.5	28.1
BASELINE PLUS PROJECT	58.1	57.0	65.8	64.2	50.1	48.3	45.9	43.7
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.0	
PROJECT IN-MIGRATION	101.4	106.8	112.0	106.0	115.6	111.9	116.3	113.0
BASELINE PLUS PROJECT	94.8	96.0	95.9	96.3	96.9	98.2	97.5	98.8

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.63		.84		.59		.57	
PROJECT IN-MIGRATION	1.06	2.23	1.29	7.07	1.18	1.23	.46	.42
BASELINE PLUS PROJECT	.69	.95	.89	2.01	.66	.73	.56	.53

TABLE C.89. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Waste Repository, Shale: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	5.7	8.4	6.1	12.0	7.2	14.4	7.4	14.7
NURSES	15.2	22.6	16.3	32.1	19.4	38.6	19.9	39.5
DENTISTS	1.8	2.7	2.0	3.9	2.3	4.6	2.4	4.7
HOSPITAL BEDS	19.6	29.0	20.9	41.4	25.0	49.7	25.6	50.8
NURSING CARE BEDS	5.8	8.3	9.3	18.0	16.3	31.4	18.8	36.2
EDUCATION								
TEACHERS: K-8	38.6	58.1	57.2	110.2	49.4	104.7	41.8	86.5
TEACHERS: 9-12	36.5	53.1	42.6	88.5	46.2	89.1	38.7	80.5
CLASSROOM SPACE: (SQUARE METERS 9-12)	9613.5	13982.3	11213.1	23304.1	12166.7	23451.4	10185.9	21195.7
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	3355.2	4966.1	3579.3	7072.5	4272.1	8504.2	4371.2	8682.9
SOLID WASTE (VEHICLES)	.7	1.0	.7	1.4	.8	1.6	.8	1.7
SOLID WASTE (PERSONNEL)	2.0	2.9	2.1	4.1	2.5	4.9	2.5	5.0
LIQUID WASTE (CUBIC METERS/DAY)	2236.8	3310.7	2386.2	4715.0	2848.1	5669.4	2914.2	5788.6
FIRE AND POLICE								
FIREMEN	4.0	5.9	4.2	8.3	5.0	10.0	5.2	10.2
POLICEMEN	11.8	17.5	12.6	24.9	15.0	30.0	15.4	30.6
RECREATION								
PLAYGROUNDS (HECTARES)	2.3	3.4	2.5	4.9	3.0	5.9	3.0	6.0
NEIGHBORHOOD PARKS (")	2.0	2.9	2.1	4.2	2.5	5.0	2.6	5.1
COMMUNITY PARKS (")	2.9	4.4	3.1	6.2	3.7	7.5	3.8	7.6
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	345.1	510.8	368.2	727.5	439.4	874.8	449.6	893.1
GOVERNMENT								
ADMINISTRATIVE STAFF	5.3	7.9	5.7	11.2	6.8	13.5	6.9	13.8

TABLE C.90. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Waste Repository, Shale: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	2000	2000	722	722	722	722	722	722
BASELINE	44243		46133		50382		51838	
PROJECT IN-MIGRATION (CUMULATIVE)	6384	9426	5531	9634	6626	11593	6774	11837
BASELINE PLUS PROJECT	50627	53669	51664	55767	57008	61974	58612	63676
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	12.6	17.6	10.7	17.3	11.6	18.7	11.6	18.6
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		31.6	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	32.5	32.4	35.6	35.5
BASELINE PLUS PROJECT	26.3	26.0	27.4	26.9	31.3	31.4	32.1	32.4
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		49.1	
PROJECT IN-MIGRATION	37.0	37.9	55.5	54.2	32.7	33.8	27.9	28.3
BASELINE PLUS PROJECT	57.8	56.7	65.8	64.7	50.6	49.2	46.3	44.7
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.0	
PROJECT IN-MIGRATION	101.4	106.7	109.3	105.9	113.9	111.7	114.7	112.8
BASELINE PLUS PROJECT	94.9	96.1	95.4	95.8	96.5	97.4	97.1	98.1

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.63		.84		.59		.57	
PROJECT IN-MIGRATION	.24	.91	-2.87	.44	1.20	1.23	.44	.42
BASELINE PLUS PROJECT	.59	.68	.41	.77	.66	.70	.56	.54

TABLE C.91. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Waste Repository, Shale: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	6.1	9.0	5.3	9.2	6.4	11.1	6.5	11.4
NURSES	16.5	24.3	14.3	24.9	17.1	29.9	17.5	30.5
DENTISTS	2.0	2.9	1.7	3.0	2.1	3.6	2.1	3.7
HOSPITAL BEDS	21.2	31.3	18.4	32.0	22.0	38.5	22.5	39.3
NURSING CARE BEDS	6.3	9.0	8.0	13.8	14.1	24.1	16.3	27.9
EDUCATION								
TEACHERS: K-8	41.7	62.5	49.5	84.9	44.9	81.4	37.6	67.3
TEACHERS: 9-12	39.5	57.3	38.2	68.4	39.9	68.5	34.8	62.4
CLASSROOM SPACE: (SQUARE METERS 9-12)	10387.7	15071.0	10048.4	18012.6	10511.0	18027.0	9154.9	16430.3
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	3624.8	5351.8	3140.0	5469.8	3761.8	6581.7	3845.8	6720.7
SOLID WASTE (VEHICLES)	.7	1.0	.6	1.1	.7	1.3	.7	1.3
SOLID WASTE (PERSONNEL)	2.1	3.1	1.8	3.2	2.2	3.8	2.2	3.9
LIQUID WASTE (CUBIC METERS/DAY)	2416.5	3567.8	2093.3	3646.5	2507.9	4387.8	2563.9	4480.4
FIRE AND POLICE								
FIREMEN	4.3	6.3	3.7	6.5	4.4	7.8	4.5	7.9
POLICEMEN	12.8	18.9	11.1	19.3	13.3	23.2	13.5	23.7
RECREATION								
PLAYGROUNDS (HECTARES)	2.5	3.7	2.2	3.8	2.6	4.6	2.7	4.7
NEIGHBORHOOD PARKS (")	2.1	3.2	1.9	3.2	2.2	3.9	2.3	4.0
COMMUNITY PARKS (")	3.2	4.7	2.8	4.8	3.3	5.8	3.4	5.9
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	372.9	550.5	323.0	562.6	386.9	677.0	395.6	691.3
GOVERNMENT								
ADMINISTRATIVE STAFF	5.7	8.5	5.0	8.7	6.0	10.4	6.1	10.7

TABLE C.92. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Waste Repository, Shale: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	2000	2000	722	722	722	722	722	722
BASELINE	21252		23102		26273		27127	
PROJECT IN-MIGRATION (CUMULATIVE)	410	5082	560	5797	655	6943	677	7100
BASELINE PLUS PROJECT	21662	26334	23662	28900	26928	33216	27803	34226
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.9	19.3	2.4	20.1	2.4	20.9	2.4	20.7
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		31.0	
PROJECT IN-MIGRATION	23.1	23.5	23.1	22.2	33.1	32.3	35.4	35.3
BASELINE PLUS PROJECT	25.5	24.8	26.7	25.7	30.3	30.8	31.1	31.9
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		46.6	
PROJECT IN-MIGRATION	43.6	36.5	58.4	53.5	27.7	32.7	27.2	27.6
BASELINE PLUS PROJECT	59.5	54.7	60.6	59.2	49.1	45.8	46.1	42.2
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	98.8	134.4	107.4	127.4	112.1	125.6	112.8
BASELINE PLUS PROJECT	94.3	94.4	94.9	96.6	95.8	98.4	96.1	98.8

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.98		1.67		.86		.64	
PROJECT IN-MIGRATION	2.01	1.34	6.24	2.63	1.04	1.20	.66	.45
BASELINE PLUS PROJECT	1.00	1.05	1.77	1.86	.86	.93	.64	.60

TABLE C.93. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Waste Repository, Shale: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.4	4.4	.5	5.0	.6	6.0	.6	6.1
NURSES	1.2	14.9	1.6	17.0	1.9	20.4	2.0	20.9
DENTISTS	.1	1.4	.2	1.6	.2	1.9	.2	1.9
HOSPITAL BEDS	1.5	19.0	2.1	21.6	2.4	25.9	2.5	26.5
NURSING CARE BEDS	.2	4.8	.7	7.5	1.3	12.6	1.5	14.5
EDUCATION								
TEACHERS: K-8	2.9	32.9	5.3	51.0	3.6	48.0	3.5	40.3
TEACHERS: 9-12	2.5	31.7	3.0	40.3	4.1	41.0	2.9	37.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	670.9	8340.8	785.8	10601.7	1072.2	10792.5	753.7	9738.3
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	232.8	2885.5	318.0	3291.5	371.9	3941.8	384.3	4030.9
SOLID WASTE (VEHICLES)	.0	.6	.1	.6	.1	.8	.1	.8
SOLID WASTE (PERSONNEL)	.1	1.7	.2	1.9	.2	2.3	.2	2.3
LIQUID WASTE (CUBIC METERS/DAY)	155.2	1923.7	212.0	2194.3	247.9	2627.8	256.2	2687.3
FIRE AND POLICE								
FIREMEN	.3	3.4	.4	3.9	.4	4.7	.5	4.8
POLICEMEN	.8	10.2	1.1	11.6	1.3	13.9	1.4	14.2
RECREATION								
PLAYGROUNDS (HECTARES)	.2	2.0	.2	2.3	.3	2.7	.3	2.8
NEIGHBORHOOD PARKS (")	.1	1.7	.2	1.9	.2	2.3	.2	2.4
COMMUNITY PARKS (")	.2	2.5	.3	2.9	.3	3.5	.3	3.5
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	19.0	235.8	26.0	269.0	30.4	322.1	31.4	329.4
GOVERNMENT								
ADMINISTRATIVE STAFF	.4	4.6	.5	5.2	.6	6.2	.6	6.4

TABLE C.94. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Waste Repository, Shale: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	2000	2000	722	722	722	722	722	722
BASELINE	60376		72697		89545		92441	
PROJECT IN-MIGRATION (CUMULATIVE)	191	2532	1220	4288	1430	5068	1476	5242
BASELINE PLUS PROJECT	60567	62908	73917	76985	90975	94613	93916	97682
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	.3	4.0	1.6	5.6	1.6	5.4	1.6	5.4
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.5	22.5	23.1	33.5	33.4	36.2	35.9
BASELINE PLUS PROJECT	27.8	27.6	29.2	28.9	35.1	35.0	36.1	36.1
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		39.7	
PROJECT IN-MIGRATION	43.6	41.2	61.3	57.2	27.7	29.7	26.7	28.6
BASELINE PLUS PROJECT	51.1	50.7	47.6	47.9	42.7	42.2	39.5	39.0
SEX RATIO								
BASELINE	99.4		99.3		98.9		98.3	
PROJECT IN-MIGRATION	157.7	127.5	132.0	132.0	128.1	127.4	127.4	126.2
BASELINE PLUS PROJECT	99.5	100.4	99.7	100.8	99.3	100.3	98.7	99.6

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.70		3.71		1.39		.64	
PROJECT IN-MIGRATION	8.18	2.91	37.10	10.53	1.06	1.11	.63	.67
BASELINE PLUS PROJECT	1.75	1.76	3.98	4.04	1.38	1.37	.64	.64

TABLE C.95. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Waste Repository, Shale: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.3	3.4	1.6	5.7	1.9	6.7	2.0	7.0
NURSES	.9	12.5	6.0	21.2	7.1	25.1	7.3	25.9
DENTISTS	.1	1.4	.7	2.4	.8	2.9	.8	3.0
HOSPITAL BEDS	1.1	14.9	7.2	25.2	8.4	29.8	8.7	30.8
NURSING CARE BEDS	.2	5.4	4.7	14.4	8.5	28.4	9.9	33.9
EDUCATION								
TEACHERS: K-8	1.4	17.7	11.7	40.1	7.9	29.3	7.3	27.3
TEACHERS: 9-12	1.2	14.4	6.9	23.3	9.1	30.1	6.3	22.3
CLASSROOM SPACE: (SQUARE METERS 9-12)	312.2	3802.8	1804.2	6127.6	2408.1	7911.6	1655.3	5867.4
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	108.3	1437.7	692.4	2434.5	812.0	2877.3	837.9	2976.0
SOLID WASTE (VEHICLES)	.0	.3	.1	.5	.2	.6	.2	.6
SOLID WASTE (PERSONNEL)	.1	.8	.4	1.4	.5	1.7	.5	1.7
LIQUID WASTE (CUBIC METERS/DAY)	72.2	958.5	461.6	1623.0	541.3	1918.2	558.6	1984.0
FIRE AND POLICE								
FIREMEN	.1	1.7	.8	2.9	1.0	3.4	1.0	3.5
POLICEMEN	.4	5.1	2.4	8.6	2.9	10.1	3.0	10.5
RECREATION								
PLAYGROUNDS (HECTARES)	.1	1.0	.5	1.7	.6	2.0	.6	2.1
NEIGHBORHOOD PARKS (")	.1	.9	.4	1.4	.5	1.7	.5	1.8
COMMUNITY PARKS (")	.1	1.3	.6	2.1	.7	2.5	.7	2.6
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	8.2	108.9	52.4	184.4	61.5	217.9	63.5	225.4
GOVERNMENT								
ADMINISTRATIVE STAFF	.2	2.3	1.1	3.9	1.3	4.6	1.3	4.7

TABLE C.96. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Waste Repository, Basalt: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	3710	3710	1170	1170	1170	1170	1170	1170
BASELINE	44243		46133		50382		51838	
PROJECT IN-MIGRATION (CUMULATIVE)	12185	17724	10356	16801	12436	20234	12706	20658
BASELINE PLUS PROJECT	56428	61967	56488	62933	62818	70616	64544	72496
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	21.6	28.6	18.3	26.7	19.8	28.7	19.7	28.5
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		31.6	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	32.5	32.4	35.6	35.5
BASELINE PLUS PROJECT	25.8	25.5	26.9	26.2	31.5	31.6	32.4	32.8
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		49.1	
PROJECT IN-MIGRATION	36.9	37.8	54.8	53.9	33.3	34.0	28.1	28.4
BASELINE PLUS PROJECT	55.4	53.9	64.7	63.3	48.9	47.2	44.5	42.6
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.0	
PROJECT IN-MIGRATION	101.1	106.4	107.4	105.2	112.7	111.3	113.7	112.4
BASELINE PLUS PROJECT	95.5	97.4	96.2	96.8	97.8	99.0	98.4	99.7

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.63		.84		.59		.57	
PROJECT IN-MIGRATION	.17	.61	-3.25	-1.07	1.22	1.24	.43	.41
BASELINE PLUS PROJECT	.54	.63	.02	.31	.71	.77	.54	.53

TABLE C.97. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Waste Repository, Basalt: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	11.7	17.0	9.9	16.1	11.9	19.4	12.2	19.8
NURSES	31.4	45.7	26.7	43.3	32.1	52.2	32.8	53.3
DENTISTS	3.8	5.5	3.2	5.2	3.9	6.3	3.9	6.4
HOSPITAL BEDS	40.5	58.8	34.4	55.8	41.3	67.2	42.2	68.6
NURSING CARE BEDS	12.1	16.9	14.9	23.9	26.1	41.9	30.2	48.5
EDUCATION								
TEACHERS: K-8	79.5	117.5	91.9	147.6	86.0	143.2	71.5	118.0
TEACHERS: 9-12	75.4	107.8	72.6	119.9	74.1	118.9	66.2	109.5
CLASSROOM SPACE: (SQUARE METERS 9-12)	19844.3	28369.7	19113.4	31555.2	19510.0	31307.2	17427.1	28808.7
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	6917.9	10062.7	5879.4	9538.5	7060.7	11487.9	7213.7	11728.3
SOLID WASTE (VEHICLES)	1.3	1.9	1.1	1.8	1.4	2.2	1.4	2.3
SOLID WASTE (PERSONNEL)	4.0	5.8	3.4	5.5	4.1	6.7	4.2	6.8
LIQUID WASTE (CUBIC METERS/DAY)	4612.0	6708.5	3919.6	6359.0	4707.1	7658.6	4809.1	7818.9
FIRE AND POLICE								
FIREMEN	8.2	11.9	6.9	11.3	8.3	13.6	8.5	13.8
POLICEMEN	24.4	35.4	20.7	33.6	24.9	40.5	25.4	41.3
RECREATION								
PLAYGROUNDS (HECTARES)	4.8	7.0	4.1	6.6	4.9	7.9	5.0	8.1
NEIGHBORHOOD PARKS (")	4.1	6.0	3.5	5.6	4.2	6.8	4.3	6.9
COMMUNITY PARKS (")	6.1	8.8	5.2	8.4	6.2	10.1	6.3	10.3
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	711.6	1035.1	604.8	981.2	726.3	1181.7	742.0	1206.4
GOVERNMENT								
ADMINISTRATIVE STAFF	11.0	16.0	9.3	15.1	11.2	18.2	11.4	18.6

TABLE C.98. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Waste Repository, Basalt: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	3710	3710	1170	1170	1170	1170	1170	1170
BASELINE	21252		23102		26273		27127	
PROJECT IN-MIGRATION (CUMULATIVE)	873	10324	980	11547	1146	13860	1185	14161
BASELINE PLUS PROJECT	22124	31576	24082	34650	27419	40133	28312	41288
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	3.9	32.7	4.1	33.3	4.2	34.5	4.2	34.3
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		31.0	
PROJECT IN-MIGRATION	23.1	23.5	23.3	22.1	33.1	32.2	35.3	35.2
BASELINE PLUS PROJECT	25.4	24.5	26.7	25.0	30.3	31.1	31.2	32.5
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		46.6	
PROJECT IN-MIGRATION	43.6	36.2	57.2	52.8	28.3	33.2	27.9	27.8
BASELINE PLUS PROJECT	59.1	51.3	60.5	58.0	48.7	43.6	45.7	39.6
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	97.2	135.5	105.4	127.7	110.9	125.5	111.7
BASELINE PLUS PROJECT	95.3	94.6	95.5	97.7	96.3	100.3	96.5	100.7

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.98		1.67		.86		.64	
PROJECT IN-MIGRATION	1.22	1.26	2.31	2.24	1.05	1.22	.67	.43
BASELINE PLUS PROJECT	.99	1.07	1.70	1.86	.87	.98	.64	.57

TABLE C.99. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Waste Repository, Basalt: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.8	8.9	.8	9.9	1.0	11.9	1.0	12.2
NURSES	2.6	30.4	2.9	33.9	3.4	40.7	3.5	41.6
DENTISTS	.2	2.8	.3	3.1	.3	3.7	.3	3.8
HOSPITAL BEDS	3.3	38.5	3.7	43.1	4.3	51.7	4.4	52.8
NURSING CARE BEDS	.4	9.9	1.2	14.8	2.2	24.8	2.5	28.6
EDUCATION								
TEACHERS: K-8	6.3	66.5	9.2	100.7	6.4	97.8	6.2	81.2
TEACHERS: 9-12	5.4	64.7	5.1	81.7	7.0	81.1	5.0	75.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	1428.3	17039.2	1343.2	21496.0	1831.1	21335.6	1309.3	19730.9
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	495.6	5861.6	556.1	6555.9	650.8	7868.8	672.9	8040.1
SOLID WASTE (VEHICLES)	.1	1.1	.1	1.3	.1	1.5	.1	1.6
SOLID WASTE (PERSONNEL)	.3	3.4	.3	3.8	.4	4.6	.4	4.7
LIQUID WASTE (CUBIC METERS/DAY)	330.4	3907.7	370.7	4370.6	433.9	5245.9	448.6	5360.1
FIRE AND POLICE								
FIREMEN	.6	6.9	.7	7.7	.8	9.3	.8	9.5
POLICEMEN	1.7	20.6	2.0	23.1	2.3	27.7	2.4	28.3
RECREATION								
PLAYGROUNDS (HECTARES)	.3	4.1	.4	4.5	.5	5.4	.5	5.6
NEIGHBORHOOD PARKS (")	.3	3.5	.3	3.9	.4	4.7	.4	4.8
COMMUNITY PARKS (")	.4	5.1	.5	5.8	.6	6.9	.6	7.1
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	40.5	479.0	45.4	535.8	53.2	643.1	55.0	657.1
GOVERNMENT								
ADMINISTRATIVE STAFF	.8	9.3	.9	10.4	1.0	12.5	1.1	12.7

TABLE C.100. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Waste Repository, Basalt: U and Pu Recycle

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	3710	3710	1170	1170	1170	1170	1170	1170
BASELINE	60376		72697		89545		92441	
PROJECT IN-MIGRATION (CUMULATIVE)	691	8132	2270	12481	2672	15002	2764	15417
BASELINE PLUS PROJECT	61067	68508	74967	85179	92216	104547	95204	107858
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.1	11.9	3.0	14.7	2.9	14.3	2.9	14.3
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		36.1	
PROJECT IN-MIGRATION	23.1	23.5	23.0	22.6	33.5	32.7	36.0	35.6
BASELINE PLUS PROJECT	27.7	27.0	29.1	28.2	35.1	34.7	36.1	36.0
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		39.7	
PROJECT IN-MIGRATION	43.6	37.5	58.7	53.9	28.7	33.4	28.0	29.7
BASELINE PLUS PROJECT	51.1	49.4	47.7	48.3	42.5	41.5	39.3	38.2
SEX RATIO								
BASELINE	99.4		99.3		98.9		98.3	
PROJECT IN-MIGRATION	157.7	104.7	134.2	115.3	128.9	117.5	127.6	117.7
BASELINE PLUS PROJECT	99.9	100.0	100.2	101.5	99.7	101.4	99.0	100.9

	PERIOD AND IMPACT CONDITION							
	1980-2005		1980-1985		1985-2000		2000-2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.70		3.71		1.39		.64	
PROJECT IN-MIGRATION	5.54	2.56	23.78	8.57	1.09	1.23	.68	.55
BASELINE PLUS PROJECT	1.78	1.82	4.10	4.36	1.38	1.37	.64	.62

TABLE C.101. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Waste Repository, Basalt: U and Pu Recycle

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2005	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	.9	10.8	3.0	16.6	3.6	20.0	3.7	20.5
NURSES	3.4	40.3	11.2	61.8	13.2	74.3	13.7	76.3
DENTISTS	.4	4.6	1.3	7.1	1.5	8.6	1.6	8.8
HOSPITAL BEDS	4.1	47.8	13.3	73.4	15.7	88.2	16.3	90.7
NURSING CARE BEDS	.8	20.3	7.9	42.2	15.3	79.8	18.2	94.4
EDUCATION								
TEACHERS: K-8	5.0	53.6	21.5	111.4	14.9	100.4	14.0	88.3
TEACHERS: 9-12	4.3	49.7	12.2	79.7	16.3	85.2	11.6	74.0
CLASSROOM SPACE: (SQUARE METERS 9-12)	1131.1	13086.7	3206.7	20965.6	4282.2	22437.1	3046.5	19478.7
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	392.4	4617.0	1288.8	7086.2	1516.8	8517.5	1569.0	8753.0
SOLID WASTE (VEHICLES)	.1	.9	.2	1.4	.3	1.7	.3	1.7
SOLID WASTE (PERSONNEL)	.2	2.7	.7	4.1	.9	5.0	.9	5.1
LIQUID WASTE (CUBIC METERS/DAY)	261.6	3078.0	859.2	4724.1	1011.2	5678.3	1046.0	5835.4
FIRE AND POLICE								
FIREMEN	.5	5.4	1.5	8.4	1.8	10.1	1.9	10.3
POLICEMEN	1.4	16.3	4.5	25.0	5.3	30.0	5.5	30.8
RECREATION								
PLAYGROUNDS (HECTARES)	.3	3.2	.9	4.9	1.0	5.9	1.1	6.1
NEIGHBORHOOD PARKS (")	.2	2.7	.8	4.2	.9	5.0	.9	5.2
COMMUNITY PARKS (")	.3	4.1	1.1	6.2	1.3	7.5	1.4	7.7
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	29.7	349.7	97.6	536.7	114.9	645.1	118.8	662.9
GOVERNMENT								
ADMINISTRATIVE STAFF	.6	7.3	2.0	11.2	2.4	13.5	2.5	13.9

TABLE C.102. Site County Demographic Impacts for Selected Years by Impact Condition: Southwest Site, Waste Repository, Basalt: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	5290	5290	760	760	760	760	760	760
BASELINE	44243		46133		50382		53318	
PROJECT IN-MIGRATION (CUMULATIVE)	17544	25391	11753	16553	14206	20014	14837	20904
BASELINE PLUS PROJECT	61787	69634	57886	62686	64588	70395	68154	74222
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	28.4	36.5	20.3	26.4	22.0	28.4	21.8	28.2
MEDIAN AGE								
BASELINE	27.0		28.3		31.0		32.7	
PROJECT IN-MIGRATION	23.5	23.5	22.0	22.0	32.3	32.3	37.3	37.3
BASELINE PLUS PROJECT	25.4	25.1	26.7	26.2	31.4	31.5	33.7	33.9
DEPENDENCY RATIO								
BASELINE	61.4		67.1		53.3		47.6	
PROJECT IN-MIGRATION	36.9	37.8	52.7	52.5	35.0	35.1	26.3	26.4
BASELINE PLUS PROJECT	53.6	51.9	64.0	63.0	48.8	47.6	42.3	40.9
SEX RATIO								
BASELINE	94.0		93.9		94.4		95.6	
PROJECT IN-MIGRATION	101.0	106.3	102.8	102.9	109.8	109.8	111.6	111.6
BASELINE PLUS PROJECT	95.9	98.3	95.6	96.2	97.6	98.6	98.9	99.8

	PERIOD AND IMPACT CONDITION							
	1980-2010		1980-1985		1985-2000		2000-2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.62		.84		.59		.57	
PROJECT IN-MIGRATION	-.56	-.65	-8.01	-8.56	1.26	1.27	.43	.44
BASELINE PLUS PROJECT	.33	.21	-1.30	-2.10	.73	.77	.54	.53

TABLE C.103. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southwest Site, Waste Repository, Basalt: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	16.8	24.4	11.3	15.9	13.6	19.2	14.2	20.1
NURSES	45.3	65.5	30.3	42.7	36.7	51.6	38.3	53.9
DENTISTS	5.4	7.9	3.6	5.1	4.4	6.2	4.6	6.5
HOSPITAL BEDS	58.2	84.3	39.0	55.0	47.2	66.4	49.3	69.4
NURSING CARE BEDS	17.4	24.3	16.4	22.9	28.9	40.6	39.1	54.9
EDUCATION								
TEACHERS: K-8	114.4	168.2	101.9	143.2	103.3	145.8	72.7	102.8
TEACHERS: 9-12	108.6	154.5	85.5	120.0	81.9	114.8	68.1	95.8
CLASSROOM SPACE: (SQUARE METERS 9-12)	28582.1	40657.3	22496.4	31592.6	21560.6	30226.2	17922.5	25227.6
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	9960.7	14415.5	6672.9	9398.2	8065.4	11362.8	8423.5	11868.3
SOLID WASTE (VEHICLES)	1.9	2.8	1.3	1.8	1.6	2.2	1.6	2.3
SOLID WASTE (PERSONNEL)	5.8	8.4	3.9	5.5	4.7	6.6	4.9	6.9
LIQUID WASTE (CUBIC METERS/DAY)	6640.5	9610.3	4448.6	6265.4	5376.9	7575.2	5615.7	7912.2
FIRE AND POLICE								
FIREMEN	11.8	17.0	7.9	11.1	9.5	13.4	9.9	14.0
POLICEMEN	35.1	50.8	23.5	33.1	28.4	40.0	29.7	41.8
RECREATION								
PLAYGROUNDS (HECTARES)	6.9	10.0	4.6	6.5	5.6	7.9	5.8	8.2
NEIGHBORHOOD PARKS (")	5.9	8.5	4.0	5.6	4.8	6.7	5.0	7.0
COMMUNITY PARKS (")	8.7	12.6	5.9	8.2	7.1	10.0	7.4	10.4
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	1024.6	1482.8	686.4	966.7	829.6	1168.8	866.5	1220.8
GOVERNMENT								
ADMINISTRATIVE STAFF	15.8	22.9	10.6	14.9	12.8	18.0	13.4	18.8

TABLE C.104. Site County Demographic Impacts for Selected Years by Impact Condition: Southeast Site, Waste Repository, Basalt: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	5290	5290	760	760	760	760	760	760
BASELINE	21252		23102		26273		27935	
PROJECT IN-MIGRATION (CUMULATIVE)	1301	15168	890	13582	1043	16361	1123	17093
BASELINE PLUS PROJECT	22552	36419	23992	36685	27316	42634	29058	45029
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	5.8	41.6	3.7	37.0	3.8	38.4	3.9	38.0
MEDIAN AGE								
BASELINE	25.5		26.8		30.2		32.1	
PROJECT IN-MIGRATION	23.1	23.5	24.2	22.2	32.9	32.1	35.8	36.7
BASELINE PLUS PROJECT	25.3	24.3	26.7	24.8	30.3	31.1	32.2	33.8
DEPENDENCY RATIO								
BASELINE	59.8		60.7		49.7		46.1	
PROJECT IN-MIGRATION	43.6	36.1	53.2	51.3	30.3	34.4	31.1	25.8
BASELINE PLUS PROJECT	58.8	49.0	60.4	57.1	48.9	43.4	45.5	37.7
SEX RATIO								
BASELINE	93.4		94.1		95.1		95.5	
PROJECT IN-MIGRATION	157.7	96.7	139.3	102.8	128.6	109.2	122.1	110.4
BASELINE PLUS PROJECT	96.2	94.7	95.5	97.2	96.2	100.3	96.4	100.9

	PERIOD AND IMPACT CONDITION							
	1980-2010		1980-1985		1985-2000		2000-2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	.91		1.67		.86		.61	
PROJECT IN-MIGRATION	-.49	.40	-7.60	-2.21	1.06	1.24	.74	.44
BASELINE PLUS PROJECT	.84	.71	1.24	.15	.87	1.00	.62	.55

TABLE C.105. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Southeast Site, Waste Repository, Basalt: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	1.1	13.0	.8	11.7	.9	14.1	1.0	14.7
NURSES	3.8	44.6	2.6	39.9	3.1	48.1	3.3	50.3
DENTISTS	.4	4.1	.2	3.7	.3	4.4	.3	4.6
HOSPITAL BEDS	4.9	56.6	3.3	50.7	3.9	61.0	4.2	63.8
NURSING CARE BEDS	.6	14.6	.9	16.9	1.8	28.6	2.6	38.3
EDUCATION								
TEACHERS: K-8	9.4	97.6	8.2	116.5	6.0	119.1	6.1	85.0
TEACHERS: 9-12	8.1	95.3	4.2	97.8	5.8	93.2	4.2	79.1
CLASSROOM SPACE: (SQUARE METERS 9-12)	2128.1	25076.4	1118.3	25750.7	1518.7	24535.0	1110.8	20816.4
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	738.4	8611.4	505.1	7711.4	592.1	9288.8	637.4	9704.7
SOLID WASTE (VEHICLES)	.1	1.7	.1	1.5	.1	1.8	.1	1.9
SOLID WASTE (PERSONNEL)	.4	5.0	.3	4.5	.3	5.4	.4	5.6
LIQUID WASTE (CUBIC METERS/DAY)	492.2	5740.9	336.7	5140.9	394.8	6192.5	425.0	6469.8
FIRE AND POLICE								
FIREMEN	.9	10.2	.6	9.1	.7	11.0	.8	11.5
POLICEMEN	2.6	30.3	1.8	27.2	2.1	32.7	2.2	34.2
RECREATION								
PLAYGROUNDS (HECTARES)	.5	6.0	.3	5.3	.4	6.4	.4	6.7
NEIGHBORHOOD PARKS (")	.4	5.1	.3	4.6	.4	5.5	.4	5.7
COMMUNITY PARKS (")	.6	7.6	.4	6.8	.5	8.2	.6	8.5
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	60.3	703.8	41.3	630.2	48.4	759.1	52.1	793.1
GOVERNMENT								
ADMINISTRATIVE STAFF	1.2	13.7	.8	12.2	.9	14.7	1.0	15.4

TABLE C.106. Site County Demographic Impacts for Selected Years by Impact Condition: Midwest Site, Waste Repository, Basalt: Once Through

	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
MANPOWER REQUIREMENT	5290	5290	760	760	760	760	760	760
BASELINE	60376		72697		89545		95378	
PROJECT IN-MIGRATION (CUMULATIVE)	1154	13306	2016	17364	2388	21078	2592	22210
BASELINE PLUS PROJECT	61530	73682	74713	90061	91933	110623	97970	117587
IN-MIGRANTS AS PERCENT OF BASELINE PLUS PROJECT	1.9	18.1	2.7	19.3	2.6	19.1	2.6	18.9
MEDIAN AGE								
BASELINE	27.8		29.3		35.1		35.8	
PROJECT IN-MIGRATION	23.1	23.5	24.0	22.6	33.5	32.3	37.0	37.1
BASELINE PLUS PROJECT	27.7	26.6	29.2	27.8	35.1	34.4	35.8	36.1
DEPENDENCY RATIO								
BASELINE	51.2		47.4		42.9		42.1	
PROJECT IN-MIGRATION	43.6	36.9	54.4	51.3	30.4	35.8	31.1	28.2
BASELINE PLUS PROJECT	51.0	48.4	47.6	48.1	42.6	41.5	41.8	39.2
SEX RATIO								
BASELINE	99.4		99.3		98.9		97.5	
PROJECT IN-MIGRATION	157.7	101.2	138.3	108.6	130.3	113.3	125.3	113.9
BASELINE PLUS PROJECT	100.2	99.7	100.1	101.0	99.6	101.5	98.1	100.4

	PERIOD AND IMPACT CONDITION							
	1980-2010		1980-1985		1985-2000		2000-2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
ANNUAL RATE OF POPULATION GROWTH (PERCENT)								
BASELINE	1.52		3.71		1.39		.63	
PROJECT IN-MIGRATION	2.70	1.71	11.16	5.32	1.13	1.29	.82	.52
BASELINE PLUS PROJECT	1.55	1.56	3.88	4.01	1.38	1.37	.64	.61

TABLE C.107. Social Service Demands Associated with Project In-Migration to Site County by Impact Condition: Midwest Site, Waste Repository, Basalt: Once Through

SOCIAL SERVICE UNIT	YEAR AND IMPACT CONDITION							
	1980		1985		2000		2010	
	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM	EXPECTED	MAXIMUM
HEALTH								
PHYSICIANS	1.5	17.7	2.7	23.1	3.2	28.0	3.4	29.5
NURSES	5.7	65.9	10.0	86.0	11.8	104.3	12.8	109.9
DENTISTS	.7	7.6	1.1	9.9	1.4	12.0	1.5	12.7
HOSPITAL BEDS	6.8	78.2	11.9	102.1	14.0	123.9	15.2	130.6
NURSING CARE BEDS	1.3	34.0	5.8	56.3	12.8	107.5	18.9	150.7
EDUCATION								
TEACHERS: K-8	8.3	86.8	18.6	150.2	13.7	151.2	13.4	114.0
TEACHERS: 9-12	7.2	82.3	9.9	117.1	13.2	114.5	9.5	99.9
CLASSROOM SPACE: (SQUARE METERS 9-12)	1887.7	21664.8	2605.0	30832.1	3482.2	30124.6	2503.9	26292.5
SANITATION								
WATER TREATMENT (CUBIC METERS/DAY)	655.0	7554.5	1144.5	9858.3	1355.8	11967.2	1471.6	12609.5
SOLID WASTE (VEHICLES)	.1	1.5	.2	1.9	.3	2.3	.3	2.4
SOLID WASTE (PERSONNEL)	.4	4.4	.7	5.7	.8	7.0	.9	7.3
LIQUID WASTE (CUBIC METERS/DAY)	436.6	5036.3	763.0	6572.2	903.9	7978.1	981.1	8406.3
FIRE AND POLICE								
FIREMEN	.8	8.9	1.4	11.6	1.6	14.1	1.7	14.9
POLICEMEN	2.3	26.6	4.0	34.7	4.8	42.2	5.2	44.4
RECREATION								
PLAYGROUNDS (HECTARES)	.5	5.2	.8	6.8	.9	8.3	1.0	8.7
NEIGHBORHOOD PARKS (")	.4	4.5	.7	5.8	.8	7.1	.9	7.5
COMMUNITY PARKS (")	.6	6.6	1.0	8.6	1.2	10.5	1.3	11.1
SOCIAL PROBLEMS								
CRIMES (7 CRIME INDEX)	49.6	572.2	86.7	746.6	102.7	906.4	111.5	955.0
GOVERNMENT								
ADMINISTRATIVE STAFF	1.0	12.0	1.8	15.6	2.1	19.0	2.3	20.0

Projected population and employment are presented in tabular form for four 5-year time periods, including the construction phase (1980 to 1984); the beginning of operation (1985 to 1989); one period during operation (2000 to 2004); and the last period of the operation phase, which varies between the periods 2010 to 2014 and 2020 to 2024, depending on the facility. Baseline projections for the site county are shown, along with project in-migration projections, and combined baseline plus project projections.

In addition, statistics are included for these three projections to illustrate changes in age composition (median age and dependency ratio) and sex composition (sex ratio). Rates of population growth for each of the three projections are computed over four time periods.

C.5 PRESENTATION OF SOCIOECONOMIC EEFECTS

This section presents an assessment of the demographic and social service impacts on the reference sites resulting from construction and operation of the selected nuclear waste management facilities. Although only a limited number of indicators for each type of impact are considered, the data provided should be sufficient to determine whether significant discontinuities in demographic structure will occur and what the potential effects will be on local social service systems (see Tables C.6 through C.107).

C.5.1 Operational Indicators

- The baseline population is the site county population projected forward from 1970. The numbers given represent the population size expected in the absence of the project.
- Project in-migration includes primary and secondary employees, their dependents, migrant replacements for displaced workers, and excess migrants. These in-migrants are presented cumulatively and represent active members of the project labor force (plus dependents and secondary employees) as well as former employees of the project who have decided to remain in the site community.
- Median age is a summary measure of the age composition of a population. Half of the population is older than the median age and half is younger. Variation in the age composition of a population over time is reflected in increases or decreases in the median age.
- The dependency ratio represents the ratio of child "dependents" aged 0 to 14 plus adult "dependents" age 65 and over to the "working age" population aged 15 to 64.* This ratio also reflects the age composition of the population. It is designed as a proxy to a nonworker to worker ratio and, as presented here, represents an approximation to the number of dependents supported by 100 members of the labor force. The higher the dependency ratio, the greater the demands placed upon the economic resources generated by the labor force.
- The sex ratio is represented by the number of males in the population per 100 females.
- Annual rate of population growth, expressed as a percentage, is calculated by the formula,

* The labor force is usually assumed to include persons aged 16 and over. In this study the population is classified into 5-year age groups. Thus, the working-age population is assumed to begin with the group aged 15 to 19. Labor force participation rates for this group range from about 48% for civilians aged 15 to 17 to about 68% for civilians aged 18 and 19.

$$r = \frac{100 \ln \frac{P_2}{P_1}}{t}$$

where: r = annual rate of population growth
P_2 = population at time 2
P_1 = population at time 1
t = the number of years in the interval

As an aid in interpreting the tables that follow, it can be noted that a doubling of the population in 5 years would produce an annual growth rate of 14%.

Social service demands are assessed for a variety of service sectors, including health (nurses, dentists, hospital beds, and nursing care beds), education (teachers, kindergarten through grade 8, and grades 9 through 12, as well as classroom space), sanitation (water treatment, liquid waste volume, solid waste volume, solid waste collection personnel, and solid waste vehicles), fire and police protection, recreation (playground area and neighborhood and community park area), and government administrative staff. In addition, a social problems index, based upon seven representative crimes, is used. Estimates of these service demands are derived by multiplying the volume of project in-migration by a ratio of the service unit to the relevant unit of population. The service multipliers are presented in Table C.3.

C.5.2 Analytic Procedures

The demographic and social service impacts are examined for several time periods. The number of intervals and their duration vary according to the waste management facility being considered. For all facilities, construction is assumed to take place during the 5-year period from 1980 to 1984, and construction impacts are averaged over that length of time. The period of planned operation begins in 1985 and its duration varies, ranging from 20 years for same a waste repositories to 30 years for fuel storage facilities. In each case, impacts of facility operation are reported for two intervals; that is, 1985 to 2000 and 2000 to 2005, 2010, or 2015, depending on the facility.

Impact forecasts are made on the basis of two sets of assumptions regarding the impact condition, reflecting the probability that new project employees and their dependents will settle and remain in the site county. The expected impact condition is based on the most probable configuration of these assumptions. The maximum impact condition results from an extreme but plausible set of assumptions. Migrant settlement in the site county in excess of the maximum impact condition is considered highly unlikely. These two sets of assumptions regarding impact conditions are specified in Table C.4.

Several types of comparisons are possible for purposes of assessing impacts. First, for the demographic data, contrasts can be made between 1) baseline and expected values, 2) baseline and maximum values, and 3) expected and maximum values. The first two of these comparisons reflect impacts on the site county due to the project, while the third reflects a difference in the degree of impact due to variation in the assumptions of the model.

Although extensive sensitivity testing of the model has not been attempted, it is evident that two sets of assumptions, which vary by impact condition, have a major effect on projected employment size. These sets are the regional employment multipliers (Table C.2) and the distance exponent in the gravity model (Table C.4).

A second type of comparison involves assessing social service impacts in terms of the additional demands placed on the site community's existing service capabilities, that is, personnel, facilities, volume, etc. These data are presented for both "expected" and "maximum" impact conditions, and differences between the two values can also be evaluated.

As a third method, each of the measures mentioned above can be compared across the three site counties in order to determine whether differences in project impacts can be attributed to differences among site characteristics. These comparisons can be made for both "expected" and "maximum" impact conditions. Two factors are of particular importance here. As indicated in the description of the three reference sites (Table C.5), the size of the unemployed construction labor force in each region varies greatly. To the extent that the project employs available unemployed workers, forecasted employment in-migration will be reduced. In addition, the allocation of regional in-migrants to residence in the site county is a function of the number of competing destination counties and their size. Since the Southwest region contains only a few counties, none of which are metropolitan, a substantial portion of all regional in-migrants will be allocated to the site county. This is not true for the other two regions. For these reasons, larger impacts can be expected to occur in the Southwest site.

Fourth, temporal comparisons can be made for each site county. In this way it will be possible to determine whether impacts associated with a project are likely to be felt more acutely at one or another stage of the project.

A fifth comparison involves differences of impacts between the construction and operation phases of the project. Such comparisons can be specific to sites, facility types, and impact conditions. Results will suggest which of the two phases may be of greatest concern for a potential site.

Finally, the socioeconomic impacts associated with, for example, the waste management component of a major reprocessing facility, can be considered in terms of how large the waste management impacts are relative to impacts associated with the entire facility. This type of comparison is only applicable in the case of the fuel reprocessing plant (Tables C.6 through C.23) and the mixed-oxide fuel fabrication facility (Tables C.24 through C.41). All other facilities examined are devoted entirely to waste management.

C.5.3 Forecasted Impacts and Interpretations

Socioeconomic impacts are derived from the magnitude of employment demand for construction and operation. In addition, variations in impacts are a function of site-specific characteristics and assumptions internal to the projection model. Thus, similar levels of employment demand will produce similar impact forecasts for a given site and impact condition. The Southeast and Midwest sites are relatively similar in terms of characteristics

that are most critical in affecting the projections. These characteristics include availability of local labor force, secondary employment multipliers, proximity of a metropolitan area, and number and demographic diversity of counties in the commuting region. Characteristics of the Southwest site consistently result in larger forecasted impacts, while the Midwest site results in the smallest impacts.

Another contributor to impacts is the time pattern of project-associated employment change. For example, a large employment buildup followed closely by rapidly declining project employment demand can cause serious regional economic and social disruptions. The following analysis thus gives emphasis to the differences among sites and over time for the facility combinations. The waste management systems for the fuel reprocessing plant and the mixed-oxide fuel fabrication plant are hypothetical, since they cannot exist apart from the primary facility itself. In the same way, the production facility is always colocated with a waste management component. These facilities are distinguished in this analysis to facilitate both comparison of waste management options across facility combinations and examination of waste management as a part of a whole system.*

Identical facilities at each site imply the same employment requirement. However, since the Southwest site has a substantially smaller unemployed construction labor force pool to draw labor from (390 persons versus 10,660 for the Midwest site and 2420 in the Southwest site), primary project employment generates a larger secondary employment component than do the other two sites (Table C.4). This effect is reinforced by the fact that there are fewer counties, and no metropolitan counties, in the Southwest region competing for the residency of regional in-migrants. Thus, the size of the projected in-migrant employment for construction is a complex function of employment demand, model assumptions, and site conditions. Data for the construction period (1980) presented in the even-numbered Tables C.6 through C.106 reveal that project in-migration is approximately a constant fraction of primary employment during the construction phase. This relationship is especially evident for the Southwest site. For the Southeast and Midwest sites, project-associated in migration under expected impact conditions is less than primary construction employment demand throughout the employment range investigated here (54 for the MOX FFP waste management reference system to 5290 for a waste repository in basalt – See Table C.1). In the Southwest site, in contrast, project-associated in-migration exceeds primary construction employment demand for both impact conditions, except in the expected impact condition for the MOX FFP reference system (Table C.30).

The projected in-migrant impacts during the operation phase are determined by a more complex process. All primary operation employment is assumed to be in-migrant, while

* Strictly speaking, the waste and production components of the FRP and MOX FFP are not additive in this model. That is, if employment statistics for colocated waste and production facilities were combined and processed together, the projected impacts would differ from the sum of their parts. In fact, in each time period and for each impact condition the combined facilities lead to larger impact forecasts than an addition of the separate effects. The projected differences between these two types of estimates increase over time, such that at the later time periods a linear combination of the waste and production components underestimates "true" impacts by up to 50%, depending on the site and impact condition.

secondary operation employment is derived from several potential sources (see Figure C.1). The projected in-migration in 1985 also includes construction workers and their families who have decided to remain in the region after project construction.

The following sections treat successively each of the facilities, with reference to Tables C.6 through C.107.

C.5.3.1 Reference Fuel Reprocessing Plant

The Reference Fuel Reprocessing Plant (Tables C.12 through C.17) will be analyzed in some detail to serve as a model for interpreting all of the tables. Employment demand associated with the construction and operation of the facility is shown on the first row of each even-numbered table for each site. Projections of the size of the site county baseline population are shown on the second row. The next row indicates the total cumulative projected number of in-migrant employees for each set of impact condition assumptions. These figures include primary and secondary employment, the employee's dependents, and, from 1985 on, persons who have separated from the job and continue to reside in the site county. The fourth row shows the projected baseline population with cumulative project-related persons added in. The fifth row provides a primary indicator of impacts; namely, it shows the number of project-related persons who reside locally as a percentage of the total population at that time.

Table C.14 demonstrates that expected project-related in-migrants during construction represent a small portion of the total population (0.9%). In the Midwest site, this portion is even smaller (0.1%), because of fewer in-migrants and a larger population base. The largest effects occur in the Southwest site (Table C.12), where projected construction-phase in-migrants represent 7.6% of the combined project and baseline population. The relative impact under maximum impact conditions is the same in the Southeast and Southwest sites, though the absolute magnitude of the Southwest maximum construction phase in-migration is more than twice that for the Southeast site (5520 vs. 2615).

The last section of Table C.16 gives the annual rate of population growth for both the baseline and for project in-migrants for selected periods. The expected increase in project personnel between the 1980 construction period and the first 5 years of operation in 1985 is 401 (436 minus 35). This represents a high annual rate of growth over the 5-year period (50%). However, the project has little effect on the overall rate of growth in the baseline-plus-project during that period (3.8% versus 3.7% in the baseline without project effects added in). The high rate of growth in the project in-migration is a consequence of the small starting population (35). Since the absolute number of in-migrants is small relative to the baseline, the impact on overall growth rates is small. Table C.12 shows that the expected number of project in-migrants actually declines by almost 35% (from 3654 to 2382) between 1980 and 1985, an annual rate of decline of 8.6%. This leads to a slower rate of growth (although at a higher level of population) than the region would have experienced without the project during this period. The potential exists for a serious boom-bust type of adjustment problem. This problem could also arise after 2015 during decommissioning, although the model does not address this process. Of course, not all of the 3106 expected

project-related personnel forecast for 2015 would leave upon decommissioning. A significant portion of them are persons who retired or separated earlier and opted to settle in the site county.

The middle section of Table C.12 provides some insight into the effects of the project on the age and sex structure of the population. (Refer to Section C.5.1 of this report for a definition of the measures used here.) For certain categories of social-service impacts, the age structure of the in-migrants is as important as their number in determining the types of socioeconomic effects they will exert. In terms of observable trends in age structure, it is apparent that the median age is forecast to rise in each baseline population--by 7.0 years in the Southwest site and by 8.3 years in the Midwest site--during the interval from 1980 to 2015. This rise occurs because 1) a population ages primarily because of declining fertility, and 2) it is assumed that replacement fertility will be achieved by 1990 (2.1 children per woman in the childbearing ages). In addition, net migration is zero by 1990, so that fertility is left as the principal factor affecting age structure for most of the projection; mortality is assumed to remain constant throughout.

For every site and facility studied here, the median age of project in-migrants is lower in 1980 than the respective baselines (by from 2 to 7 years) and rises more rapidly over time to exceed the baseline median age, usually by the year 2000. The more rapid and extensive aging of the project-related population can be attributed to those persons who elect to remain in the county after employment and to the continuing process of out-migration of young dependents. Additional interpretations of variations in age structure can only be based on more extensive sensitivity testing of the model.

Fluctuations in age structure, as reflected by changes in median age and dependency, appear to be affected only somewhat by the size of the employment demand (compare Tables C.18 through C.23 with C.30 through C.35, where construction employment is 2825 and 54 respectively). Site characteristics appear to have a larger effect in this regard. Further, the dependency ratio tends to peak in the early operation phase. It is clear that construction workers are less likely to bring young or old family members with them during construction than during operation. Later in the operation phase, the dependency ratio declines well below baseline levels as retiring and separated workers are replaced by new, younger persons of working age. Declines in the dependency ratio are usually interpreted as beneficial for a community; that is, as implying higher per-capita levels of income, saving, and expenditures.

The greatest demographic differences between project and baseline populations appear to be in the sex structure of these two populations. In the baseline for each site and each time period, there are more females than males (sex ratio <100). The opposite is true for the project population, in which males outnumber females by as much as 50%, especially during construction. The sex ratio tends to decline over time as the effect of an initially all-male primary construction and primary operation labor force is diluted by subsequent fertility, mortality, and migration. The proportion of male project workers with spouse present is normally lower than the proportion of all males in the baseline population with

spouse present. Note that the impact conditions (expected vs. maximum) appear to have less influence in determining variation in age and sex structure characteristics than does the magnitude of project employment.

Before turning to social service demands, one additional comparison will be made between the FRP reference system and the production facility without a waste management component (a hypothetical construct, Tables C.6 through C.11) to determine how much of the total impact (combined effect) is due to the waste management component. As illustrated by this example, it is particularly troublesome to determine how to separate the effects of the waste management component of a complete facility, given the observed interaction effects.

The manpower requirement for the production facility exceeds the requirement for the waste management reference system for both construction and operation (Table C.1). The manpower requirement for waste management as a proportion of the total combined system is 42% for construction and 28% for operation. In 1980, the expected number of in-migrants for the FRP waste management reference system in the Southeast site (Table C.14) is 192 persons; however, the comparable number of migrants for the FRP without waste management (Table C.6) is 310 persons. The sum of these parts (502) is 131 short of the projected total for the combined system (Table C.20). In every comparison, the parts will be less than the whole.

An analysis of waste management in the FRP as a percentage of waste plus production components shows that the range during construction is from 21% in the Midwest site [expected impact condition, 35/(35 + 130), compare Tables C.8 and C.14] to 44% in the Southwest site [maximum impact condition, 5520/(5520 + 7631), compare Tables C.6 and C.12]. The range during the final period of operation is from 22% in the Midwest site [expected impact condition, 575/(575 + 2093), compare Tables C.10 and C.16] to 32% in the Southwest site [expected impact, 3087/(1087 + 6697), compare Tables C.10 and C.16]. Clearly, manpower requirements attributable to waste management in a larger FRP system are not consistent predictors of the proportionate demographic impacts associated with waste management.

Finally, social service demands are derived from a set of ratio multipliers (Table C.3) applied directly to the project in-migration figures, except in the case of education and nursing care, where age-specific information is used. Each odd-numbered table from C.7 through C.107 indicates how many units of each social service will be expected by the new in-migrants. The seriousness of the impacts is both a function of the magnitude of the expectations and of the willingness and capacity of the site county to meet these expectations.

The FRP combined system produces the largest impacts of any of the waste management systems (Tables C.18 through C.23); for the Southeast and Midwest sites these impacts are manageable under the expected impact condition, while for the Southwest site they are severe (Tables C.18 and C.19). Without more detailed information on a community's ability to provide services at the levels indicated, for example, in Table C.19, it is difficult to say where the most severe impacts are likely to be concentrated. A general assumption that all service sectors in rural communities are operating at maximum capacity would provide one basis from which to make such judgments.

Some services will be more difficult and more costly to supply than others. For example, 31 hospital beds (1980 expected demand, Table C.19) might equal the capacity of many existing rural hospitals. The building of a new hospital may exceed the fiscal capacity of a rural area and be virtually impossible to finance. It is often difficult to attract qualified physicians into long-term rural practice. Education provides another example: although teachers are generally more readily available and less costly than are doctors or nurses, the addition of 60 to 89 elementary level teachers (Table C.19) would strain most rural communities. Policemen typically are hired locally, requiring a substantial investment of time and money in training and support structures. As many as 18 new policemen (Table C.19, expected condition) could represent a large burden for many communities. Certainly the levels of social disruption suggested by additional levels of crime attributable to project-related personnel (536 crimes in the expected condition, Table C.19) would necessitate expansion of social control capabilities.

In the absence of site-specific data, costs of the services have not been included. A complete understanding of the burden these service demands might represent to a community would also have to consider nonmonetary costs contained under the heading "quality of life." Specification of social service demands is only a first step in the assessment of impacts. The level of demand defines the "potential" for impacts and alerts planners and local officials to service sectors requiring attention, and it provides rough limits on the magnitude of anticipated effects.

C.5.3.2 Reference Mixed-Oxide Fuel Fabrication Plant

In contrast to the FRP system, the MOX FFP reference system requires the smallest employment input of all the systems examined (construction, 54; operation, 16). Forecasted impacts are trivial for each reference site, impact condition, and time period (Tables C.30 through C.35). The MOX FFP without waste management (Tables C.24 through C.29) also produces relatively small impacts for each site and time period. Only the maximum impact condition in the Southwest site (Tables C.24 and C.25) forecasts impacts that might require special consideration.

The MOX FFP is a system, like the FRP, which can be conceptualized in terms of its waste management and production components. In terms of manpower requirements for the combined system (Table C.1), waste management requires only 9% of the total work force for construction and 5% for operation. Forecasts of relative demographic impact during construction range from less than 1% (Tables C.24 and C.30) to 11% (Tables C.28 and C.34), using the method described in Section C.5.3.1 for the FRP. During the latter part of the operation phase, forecasts of relative effects attributable to waste management range from 2% to 5%.

C.5.3.3 Reference Independent Spent Fuel Storage Facility: Once-Through, Prompt Disposal

The forecasted effects of the construction and operation of the ISFSF are presented in Tables C.42 through C.47. In this facility, demand for operation manpower is small relative to demand for construction manpower (301 vs. 1350). Thus, a sharp decline in demographic

impacts associated with the transition from the construction phase to the operation phase might be anticipated. This potential for boom-bust impacts can be examined for each site. In the Southeast site (Table C.44) expected impacts, in both absolute and relative terms, are small. In addition, the transition from construction to operation results in little change in demographic impacts in spite of the disparity in manpower requirements during these two periods.

The annual rate of population change between 1980 and 1985 is small, amounting to +1.7% per year under expected impact conditions and -3.3% per year under maximum impact conditions. These small, relative changes are based on substantially different population sizes. The gain of project-related personnel from 1980 to 1985 under expected conditions is 21 persons (from 234 to 255), while under maximum conditions a loss of 475 persons (from 3090 to 2615) is sustained. Relative impacts (line 5, Table C.44) are substantial in each time period under maximum impact conditions (ranging from 10.2% to 13.7% of the baseline plus project). The reason that the anticipated boom-bust effect is not large is that most of the manpower requirement is met through local sources. In fact, reductions in local unemployment are an important benefit (positive impact) attributable to the project.

This effect is even more pronounced in the Midwest site (Table C.46) where large numbers of unemployed construction workers are available. Since operation workers are all assumed to in-migrate, there is a large relative jump in the number of in-migrants from 1980 to 1985. Even though the annual rate of growth is 49.6% per year, the absolute numbers are so small relative to the baseline population (less than 1% in the expected condition) that the baseline rate of growth is only slightly altered by the project (3.7% versus 3.8%).

The most notable example of the potential impact of a rapid decline in project-related in-migrants is seen in the Southwest site (Table C.42). Under both impact conditions, relative impacts are likely to be significant during both construction and operation. In addition, substantial declines in the numbers of in-migrants resident in the site county occur between construction and operation under both impact conditions. Nevertheless, in neither this site nor in the other two sites does the decline in resident newcomers equal the decline in manpower demand for the project between construction and operation (78% fewer persons required during operation). In fact, at the Midwest site (Table C.46) resident in-migrants actually increase during this period. Clearly, the Southwest site represents a management challenge in terms of the numbers of new persons who must be accommodated and specifically in terms of the magnitude of service demands that will be placed on the community. The Midwest and Southeast sites are much less severely affected by the presence of these facilities, except for the maximum impact condition in the Southeast site. Tables C.45 and C.47 confirm that the level of implied social service demands should be manageable.

C.5.3.4 Reference Extended Fuel Storage System

This waste storage system has the same component facilities as the prior example (Section C.5.3.3) with the addition of dry caisson storage, which adds significantly to the construction manpower requirement (Tables C.48 through C.53). This addition increases the potential for the boom-bust type of impacts. The relative magnitude of the resident project-related personnel is substantial in the Southeast and Southwest sites, reaching one-sixth of

the baseline plus project population during the operation phase under maximum impact assumptions. The effects in the Midwest site (Table C.52) are only moderate at best--the most notable exception being the rapid increase in the size of the in-migrant population from construction to operation (36% per year). Yet the relative increase is from 0.2% of baseline-plus-project to 0.8%, a trivial impact when the affected population size is taken into account. That is, the large baseline population should easily be able to absorb demographic impacts of this magnitude. An additional consideration in this regard relates to the way in which county level impacts are exerted at the community level. The operating principle is that impacts of a given magnitude may be trivial when spread out over a large population base, but the same magnitude of impact imposed upon a small local community could be a serious problem.

C.5.3.5 Reference Retrievable Waste Storage Facility

Demographic impacts associated with this facility are quite manageable at all sites (Tables C.54 through C.59). Under expected impact conditions for the Southeast and Midwest sites, in-migrants relative to the baseline are less than 1% throughout the life of the project. In the Southwest site (Table C.54), impacts are moderate under both impact conditions. An examination of Table C.55 suggests that the areas of potential difficulty for the Southwest site involve the need for additional teachers and classroom space and the likely need for greater social control facilities. Crimes in the range of 150 to 250 imply increased social disruption in communities within the county, especially when considering that the figures presented represent county-level average forecasts. The crime rate will certainly concentrate at higher levels in some parts of the county and not others. It is not possible in this generic study to pursue this line of inquiry, but clearly the potential exists for the greater concentration of forecasted county-level impacts in some subareas more than in others.

C.5.3.6 Waste Repositories

There are eight waste repository options incorporated in this study; they involve four geologic media (salt, granite, shale, and basalt) and two fuel cycles (U and Pu recycle and once-through). Construction manpower demand ranges from 1430 to 5290, and operation manpower demand ranges from 688 to 1200 (Tables C.60 through C.107). The once-through cycle tends to have a larger construction manpower demand than is true for the U and Pu recycle. The opposite is true for operation manpower requirements. For each of the four disposal media, operation employment for the once-through cycle is less than the employment requirement for the U and Pu recycle. Of the eight waste repository facilities analyzed in this study, the repository in basalt, once-through cycle, requires the largest construction labor force (5290 persons). Even a construction work force of this magnitude is judged not to produce significant impacts at either the Southeast or Midwest sites (Tables C.102 and C.104). Project-related in-migration which exceeds 10 percent of the corresponding baseline population is considered to produce significant impacts. As a percent of projected baseline population size, the potential for significant impacts under each of the waste repository facilities is much greater in the Southwest site. In this site, the expected number of in-migrants during construction is typically over three times the level of primary employment demand. For example, the construction of a waste repository in basalt, once-through cycle, produces a level of in-migration at about 9 percent of the baseline population (Table C.70) and a substantially larger relative in-migration for a waste repository in basalt, once-through cycle (28 percent of baseline, Table C.106).

The Southwest site is subjected to these relatively large impacts primarily because there is a scarcity of skilled available local labor. The maximum impact condition produces substantially larger project-induced in-migrant flows for each site and disposal medium compared with the expected conditions. Very severe impacts are forecasted for the Southeast and Southwest sites under maximum conditions, though the likelihood of their occurance is not great for two reasons. First, the manpower estimates and model assumptions have been set to produce an upper bound on social impacts. Second, in-migration at these levels would produce unacceptable local imbalances in service structure, which would result in greater turnover on the project and increased out-migration from the site county. These kinds of feedback effects are not modeled in the forecasting procedures used here. Social service demands are particularly large under both expected and maximum impact conditions at the Southwest site for most of the waste repository facilities. Service demands are uniformly large under maximum impact assumptions. Heavy demands for social services during the construction and operation phases will be difficult for rural communities to deal with, even given anticipatory planning.

A final comment regarding the waste repository options is that they involve uniformly large numbers of persons residing at the site county after the year 2000, especially under the maximum impact set of assumptions. Decommissioning is not directly addressed in this study, but it is clear that potentially disruptive effects could ensue from the phasing out of a waste repository. In the Southwest site, for example, several of the waste repository alternatives generate a large influx of project-related persons by the end of the operation phase. For example, 14,837 persons are forecast under expected impact conditions and 20,904 under maximum impact conditions for a repository in basalt, once-through cycle (Table C.106). Though many of these persons have long since left the project and have other means of support in the area, many others may be forced to leave, given inadequate or unacceptable employment opportunities after decommissioning.

C.5.4 Conclusions

Each site varies in the size of the projected baseline population for the site county. The larger the baseline population, the greater the capacity of that population to absorb new in-migrants with minimal impact. Thus, for a given level of project in-migration, the Midwest site will exhibit the smallest impact and the Southwest site will exhibit the largest. The manpower that can be obtained regionally will directly affect manpower that must in-migrate from outside the region to fill jobs. Thus, impacts are favorable on two counts: unemployment is reduced with a commensurate rise in community per-capita income, and the volume of project-related in-migration is curtailed, resulting in a reduction of new social service demands on the community.

In conclusion, the critical determinant of the potential for socioeconomic impacts is the nature of the site in which the project is to be located. Even with a large manpower requirement (a waste repository in basalt once-through cycle, needs 5290 construction workers), in-migrants amount to less than 3% of the with-project county baseline in the Midwest reference site (Table C.106). In comparison, a project with only one-fifth of the construction manpower requirement (retrievable waste storage facility needs 1060 construction workers) produces employment in-migration almost three times as large in absolute size when maximum differences in reference site characteristics are allowed to take effect (Southwest site, Table C.54 vs.

Midwest site, Table C.106). Differences in this same example between impacts relative to the baseline population are even greater (6.7% versus 1.9%). The data produced in this generic study should prove useful to planners who are interested in estimating a probable range of socioeconomic impacts associated with the development of nuclear waste management facilities.

C.6 REFERENCES CITED IN APPENDIX C

1. H. W. Richardson, Input-Output and Regional Economics, John Wiley, New York, 1972.

2. M. T. Mertaugh, "A Conceptual Model of Regional Economic Impact Generation," prepared for Battelle, Pacific Northwest Laboratories, Richland, WA, 1977.

3. J. D. Kasarda, "The Impact of Suburban Population Growth on Central City Service Functions," American Journal of Sociology 77:6, 1972.

4. E. J. Stenehjem and J. E. Metzger, A Framework for Projecting Employment and Population Changes Accompanying Energy Development, prepared for the Assistant Administrator for Planning and Analysis and Evaluation, U.S. Energy Research and Development Administration, Argonne National Laboratory, Argonne, IL, August 1976.

5. G. F. Summers, Large Industry in a Rural Area: Demographic, Economic, and Social Impacts, Working Paper RID 73.19, Center of Applied Sociology, University of Wisconsin, Madison, WI, August 1973.

6. E. J. Stenehjem and J. E. Metzger, A Framework for Projecting Employment and Population Changes Accompanying Energy Development, Phase II, prepared for the Assistant Administrator for Planning and Analysis and Evaluation, U.S. Energy Research and Development Administration, Argonne National Laboratory, Argonne, IL, October 1976.

7. D. B. Pittenger, "Population Forecasting Standards: Some Considerations Concerning Their Necessity and Content," Demography 14(3):363-368, August 1977.

8. U.S. Department of Agriculture, Net Migration of the Population, 1960-70, by Age, Sex, and Color, University of Georgia Printing Department, Athens, GA, December 1975.

9. U.S. Bureau of the Census, Current Population Reports, Population Estimates and Projections, Series P-25, U.S. Government Printing Office, Washington, DC, 1976-1977.

10. C. L. Beale, "A Further Look at Nonmetropolitan Population Growth Since 1970," American Journal of Agricultural Economics 58(5), December 1976.

11. Mountain West Research, Inc., Construction Worker Profile, Final Report, a study for the Old West Regional Commission, Denver, CO, December 1975.

12. U.S. Bureau of the Census, Current Population Reports, Population Characteristics, Series P-20, No. 305, "Geographical Mobility: March 1975 to March 1976," U.S. Government Printing Office, Washington, DC, 1977.

C.7 BIBLIOGRAPHY FOR APPENDIX C

AMA Center for Health Services Research and Development, Distribution of Physicians in the U.S., 1973, G. A. Roback, ed., American Medical Association, Chicago, IL, 1974.

American Nurses Association, Statistics Department, 1972 Inventory of Registered Nurses, Kansas City, MO, 1974.

Anderson, F. R., "The National Environmental Policy Act," in Federal Environmental Law, E. L. Dolgin and T. G. P. Guilbert, eds., West Publishing Co., St. Paul, MN, 1974.

Leistritz, F. L. and S. H. Murdock, Research Methodology Applicable to Community Adjustments to Public Land Use Alternatives, discussion paper for presentation at the Forum on the Economics of Public Land Use in the West, Reno, NV, and Fargo, ND, March 10-11, 1977, North Dakota State University.

Mountain West Research, Inc., Construction Worker Profile, Final Report, a study for the Old West Regional Commission, Denver, CO, December 1975.

National Center for Health Statistics, unpublished data from the Master Facility Census.

Stenehjem, E. J. and J. E. Metzger, A Framework for Projecting Employment and Population Changes Accompanying Energy Development, prepared for the Assistant Administrator for Planning Analysis and Evaluation, U.S. Energy Research and Development Administration, Argonne National Laboratory, Argonne, IL, August 1976.

Stenehjem, E. J. and J. E. Metzger, A Framework for Projecting Employment and Population Changes Accompanying Energy Development, Phase II, prepared for the Assistant Administrator for Planning and Analysis and Evaluation, U.S. Energy Research and Development Administration, Argonne National Laboratory, Argonne, IL, October 1976.

Technology for Commercial Radioactive Waste Management, ERDA 77-85, Energy Research and Development Administration, Washington, DC, in press.

U.S. Bureau of the Census, Census of Housing: 1970, General Housing Characteristics, Final Report, U.S. Government Printing Office, Washington, DC, 1971.

U.S. Bureau of the Census, Census of Housing: 1970, Housing Characteristics for States, Cities, and Counties (state volumes), U.S. Government Printing Office, Washington, DC, 1972.

U.S. Bureau of the Census, Census of Population: 1970, Vol. 1, Characteristics of the Population, U.S. Government Printing Office, Washington, DC, 1973.

U.S. Bureau of the Census, Current Population Reports, Population Characteristics, Series P-20, No. 305, "Geographical Mobility: March 1975 to March 1976," U.S. Government Printing Office, Washington, DC, 1977.

U.S. Bureau of the Census, Current Population Reports, Population Estimates and Projections, Series P-25, U.S. Government Printing Office, Washington, DC, 1976-1977.

U.S. Bureau of the Census, Statistical Abstract of the United States: 1975 (96th edition, Table 211: Public Elementary and Secondary Teachers, 1974), Washington, DC, 1975.

U.S. Bureau of the Census, Statistical Abstract of the United States: 1976 (97th edition, Table 672: Average Poverty Levels for Nonfarm Families and Individuals . . .), Washington, DC, 1976.

U.S. Bureau of Labor Statistics, Employment and Earnings, Vol. 24, No. 1, U.S. Government Printing Office, Washington, DC, January 1977.

U.S. Bureau of Labor Statistics, PWEDA Area Employment and Unemployment, 1975 (Annual), U.S. Government Printing Office, Washington, DC, November 1976.

U.S. Council on Environmental Quality, "Statements on Proposed Federal Actions Affecting the Environment," 36 Federal Register 7724-29, ELR 46049, April 23, 1971.

U.S. Department of Agriculture, Net Migration of the Population, 1960-70, by Age, Sex, and Color, University of Georgia Printing Department, Athens, GA, December 1975.

U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Health: United States 1975, DHEW Publication No. (HRA)76-1232, Public Health Service, Health Resources Administration, Rockville, MD, 1976.

U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Hospitals: A County and Metropolitan Area Data Book, 1973, Rockville, MD, 1976.

U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, U.S. Decennial Life Tables for 1969-71: State Life Tables, Rockville, MD, June 1975.

U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Vital Statistics of the United States, Vol. 1, Natality, Table 1-54, Rockville, MD, 1970.

U.S. Department of Justice, Federal Bureau of Investigation, Crime in the United States: 1975, Uniform Crime Reports, Washington, DC, 1976.

U.S. Nuclear Regulatory Commission, Nuclear Energy Center Site Survey--1975, Vol. V, Part IV, NUREG-0001, January 1976.