

TABLE OF CONTENTS

PAJARO VALLEY WATER MANAGEMENT AGENCY REVISED BMP PROJECTS SCREEN-CHECK DRAFT EIS

	<u>Page</u>
SUMMARY DATA SHEET	
S. SUMMARY	S-1
S.1 Purpose of and Need for the Project	S-1
S.2 Role of Bureau of Reclamation	S-2
S.3 Alternatives Including the Proposed Action	S-2
S.4 The Preferred Alternative	S-6
S.5 Summary Comparison of Alternatives	S-6
S.6 Organization of the EIS	S-11
1. PURPOSE AND NEED	1-1
1.1 Purpose of and Need for the Proposed Action	1-1
1.2 Background on Need for the Proposed Action	1-1
1.3 Federal Authorizations Related to the Proposed Action	1-10
1.4 Related Environmental Documents	1-13
1.5 Uses of This EIS	1-14
2. ALTERNATIVES INCLUDING THE PROPOSED ACTION	2-1
2.1 Introduction	2-1
2.2 Development of Alternatives	2-1
2.3 Description of Alternatives	2-2
2.3.1 Alternative A – No Action	2-5
2.3.2 Alternative B – Water Recycling Project and Import Water Project	2-7
2.3.3 Alternative C – Import Water Project Only	2-38
3. AFFECTED ENVIRONMENT	
3.1 Introduction	3.1-1
3.2 Land Use	3.2-1
3.3 Geology, Soils, Seismicity and Hazardous Materials	3.3-1
3.4 Water Resources and Water Quality	3.4-1
3.5 Vegetation, Fish and Wildlife	3.5-1
3.6 Cultural Resources	3.6-1
3.7 Indian Trust Assets	3.7-1
3.8 Air Quality	3.8-1
3.9 Environmental Justice	3.9-1
3.10 Socioeconomics	3.10-1

	<u>Page</u>
4. ENVIRONMENTAL CONSEQUENCES	
4.1 Introduction	4.1-1
4.2 Land Use	4.2-1
4.3 Geology, Soils, Seismicity, and Hazardous Materials	4.3-1
4.4 Water Resources and Water Quality	4.4-1
4.5 Vegetation, Fish and Wildlife	4.5-1
4.6 Cultural Resources	4.6-1
4.7 Indian Trust Assets	4.7-1
4.8 Air Quality	4.8-1
4.9 Environmental Justice	4.9-1
4.10 Socioeconomics	4.10-1
4.11 Cumulative Impacts	4.11-1
4.12 Relationship of Short-Term Uses and Long-Term Productivity	4.12-1
4.13 Irreversible and Irrecoverable Commitments of Resources	4.13-1
5. CONSULTATION AND COORDINATION	5-1
5.1 Environmental Review and Consultation Requirements	5-1
5.2 Agencies and Individuals Receiving Notification of the Draft EIS/ Distribution List	5-4
6 LIST OF PREPARERS	6-1
7. REFERENCES	7-1
8. ACRONYMS, ABBREVIATIONS AND GLOSSARY	8-1
8.1 Acronyms and Abbreviations	8-1
8.2 Definition of Terms	8-7

MAP APPENDIX

- A1-A4 Proposed Pipeline Alignment; Seismic Hazards in the Project Area
- B1-B6 Proposed Import Pipeline and Integrated Coastal Distribution System Alignments;
Habitat Characterization in the Project Area

APPENDICES

A. Project History and Alternatives Development	A-1
B. Water Conservation	B-1
C. Regulatory Setting – Water Resources	C-1
D. PVWMA Mitigation Commitments	D-1
E. Plant Species Observed in the Study Area	E-1
F. Bird Species Observed During Breeding Surveys	F-1
G. Fisheries Resources of the Lower Pajaro River and its Tributaries	G-1
H. Estimating Economic Impacts to Agricultural Production	H-1

	<u>Page</u>
LIST OF TABLES	
S-1 Comparison of EIS Alternatives B and C	S-4
S-2 Summary Comparison of Alternatives' Impacts	S-13
1.1 Existing and Future Water Use Within PVWMA Area	1-6
1.2 Sustainable Yield	1-8
1.3 PVWMA Water Supply Project	1-9
1.4 Required Supplemental Supplies with Conservation	1-11
2.1 EIS Alternatives Under Consideration	2-2
2.2 Summary Comparison of EIS Alternatives B and C	2-4
2.3 Water Quality Concentrations of Candidate Water Supply Sources	2-10
2.4 Alternatives B and C: Water Supply Breakdown	2-19
2.5 Estimated Right-of-Way Easements for the Import Pipeline	2-28
2.6 ICDS Pump Station Descriptions	2-37
2.7 Crossing Specifications	2-37
3.1.1 Project Locations	3.1-2
3.3.1 Primary Faults in the Project Site Vicinity	3.3-4
3.3.2 Modified Mercalli Intensity Scale	3.3-5
3.4.1 Average Summary Statistics for Chloride in All Wells	3.4-8
3.4.2 Average Summary Statistics for Nitrate in All Wells	3.4-10
3.4.3 Average Summary Statistics for Boron in All Wells	3.4-12
3.4.4 WWTF Recycled Water Quality	3.4-14
3.4.5 WWTF Water Quality (Metals) Summary	3.4-14
3.5.1 Comparison of Terminology for Vegetation Types in Wildlife Habitat Relationships and Natural Communities Occurring in the Study Area	3.5-2
3.5.2 Special-Status Plant Species Known from the Region of the Pajaro Valley Water Management Agency Revised Basin Management Plan Projects	3.5-4
3.5.3 Name, Status, Habitat, Known Localities and Likelihood of Occurrence in the Study Area for Special-Status Wildlife Species	3.5-7
3.8.1 Salinas Air Pollutant Summary, 1995-1999	3.8-4
3.9.1 Demographic Characteristics of Counties in the Project Area Based on 2000 Census	3.9-2
3.10.1 2000 Employment By Major Industry	3.10-3
3.10.2 2000 Estimated Annual Personal Income by Major Industry	3.10-4
3.10.3 2000 Estimated Annual Sales and Receipts by Major Industry	3.10-5
3.10.4 Current Agricultural Production in the PVWMA Service Area	3.10-5
3.10.5 Estimated Net Returns for Agricultural Production	3.10-8
4.3.1 Areas of Unstable Slopes Along the Import Pipeline Alignment	4.3-1
4.3.2 Locations of Fault Crossings	4.3-2
4.3.3 Areas Along the Import Pipeline Subject to Settlement and Expansive Soils	4.3-5
4.3.4 Locations of Soils Along the Import Pipeline With High Corrosivity	4.3-5
4.3.5 Summary of Databases Reviewed for Import Pipeline, Water Recycling Project and ICDS	4.3-8
4.3.6 Existing and Proposed Chemical Use at the Watsonville Wastewater Treatment Facilities	4.3-11
4.4.1 Estimated Seawater Intrusion Rates	4.4-5
4.5.1 Estimated Extent of Habitat Loss Resulting from the Import Water Project	4.5-2
4.9.1 Demographics of Census Tracts Where Project Construction Would Occur	4.9-2
4.11.1 Summary of Cumulative Effects	4.11-2
4.11.2 Summary of Impacts Identified in the Mercy Springs EA/FONSI	4.11-4

LIST OF TABLES (Continued)

4.11.3	Summary of Potential Impacts Based on the Land Retirement Program Demonstration Project Final EA	4.11-7
4.11.4	Planned and Approved Projects in the Pajaro Valley and Pajaro River Watershed	4.11-9
6.1	List of PVWMA Revised BMP EIS Preparers	6-2

LIST OF FIGURES

S-1	Overview of Project Components	S-5
1.1	PVWMA Service Area	1-2
1.2	Seawater Intrusion Areas of Elevated Chloride Levels (100 mg/l or Greater), 1951 and 2000	1-4
1.3	Groundwater Demand vs. Sustainable Pajaro Valley Water Management Agency	1-5
2.1	Overview of Project Components	2-3
2.2	Recycled Water Facility and Supplemental Well Siting Area	2-8
2.3	Recycled Water Facility Conceptual Site Plan – City of Watsonville	2-11
2.4	Tertiary Treatment Process Schematic	2-12
2.5	Proposed Import Pipeline Alignment	2-22
2.6	Proposed Import Pipeline Alignment	2-23
2.7	Proposed Import Pipeline Alignment	2-24
2.8	Proposed Import Pipeline Alignment	2-25
2.9	Typical River Crossing Pipeline Installation and Right-of-Way Requirements	2-30
2.10	Typical Rock Quarry Pipeline Installation and Right-of-Way Requirements	2-31
2.11	Integrated Coastal Distribution System – Santa Cruz Area	2-34
2.12	Integrated Coastal Distribution System – Monterey Area	2-35
3.2-1	Existing Land Uses in the PVWMA Service Area	3.2-2
3.3-1	Regional Fault Map	3.3-3
3.4-1	Hydrologic Variability in the Pajaro River Basin	3.4-2
3.4-2	Areas Underlain by Clays of Very Low Permeability in the Pajaro Valley	3.4-5
3.4-3	Chloride Concentrations in the PVWMA Service Area	3.4-9
3.4-4	Nitrate Concentrations in the PVWMA Service Area	3.4-11
4.4-1	Agricultural Crop Mix in the Pajaro Basin	4.4-4