

TABLE OF CONTENTS

	<u>PAGE</u>
CHAPTER 1: INTRODUCTION	
1.1 HISTORY OF PROCEEDINGS	1-2
1.1.1 <i>Southwest Cotton</i>	1-2
1.1.2 <i>Gila River II</i>	1-3
1.1.3 1994 Subflow Order	1-3
1.1.4 <i>Gila River IV</i>	1-5
1.2 ADWR'S PRIOR REPORTS	1-7
1.2.1 2002 Subflow Report	1-7
1.2.2 2009 Subflow Report	1-8
1.2.3 2011 Response to Comments	1-9
1.2.4 2012 Work Plan	1-9
1.3 2014 SUBFLOW REPORT	1-10
 CHAPTER 2: DELINEATION OF THE LATERAL EXTENT OF THE FLOODPLAIN HOLOCENE ALLUVIUM	
2.1 INTRODUCTION	2-1
2.2 GEOLOGY AND GEOMORPHOLOGY OF THE SAN PEDRO RIVER VALLEY	2-2
2.2.1 Geologic Setting	2-3
2.2.2 Geomorphic Processes	2-4
2.2.3 Pre-Holocene Bounding Topography	2-8
2.2.4 Site Investigations of Tributary Drainages	2-9
2.3 TOOLS FOR DELINEATING THE LATERAL EXTENT OF FHA	2-10
2.3.1 Geology and Geomorphology	2-10
2.3.2 Riparian Vegetation Patterns	2-11
2.3.3 Remote Sensing Imagery	2-12
2.3.4 Soil Lithology Logs	2-12
2.3.5 Water Elevations in Shallow Wells	2-13
2.4 SAN PEDRO RIVER FHA	2-14
2.4.1 Upper Valley Reach 1 (River Miles 157-134)	2-15
2.4.2 Upper Valley Reach 2 (River Miles 134-129)	2-16
2.4.3 Upper Valley Reach 3 (River Miles 129-114)	2-17
2.4.4 Upper Valley Reach 4 (River Miles 114-82)	2-17
2.4.5 Lower Valley Reach 1 (River Miles 82-59)	2-22
2.4.6 Lower Valley Reach 2 (River Miles 59-57.5)	2-23
2.4.7 Lower Valley Reach 3 (River Miles 57.5-0)	2-24

	<u>PAGE</u>
2.5	BABOCOMARI RIVER FHA.....2-25
2.5.1	Babocomari Reach 1 (River Miles 22-5)2-25
2.5.2	Babocomari Reach 2 (River Miles 5-0)2-26
2.6	ARAVAIPA CREEK FHA2-26
2.6.1	Aravaipa Reach 1 (River Miles 37-29)2-27
2.6.2	Aravaipa Reach 2 (River Miles 29-7)2-27
2.6.3	Aravaipa Reach 3 (River Miles 7-0)2-28

**CHAPTER 3: DELINEATION OF THE LATERAL EXTENT OF THE
SUBFLOW ZONE**

3.1	INTRODUCTION.....3-1
3.2	APPLICATION OF SETBACKS3-1
3.3	SUBFLOW ZONE3-3

**TABLES
(TAB)**

TABLE 3-1 Large Ephemeral Tributary Drainages to the San Pedro River

**FIGURES
(TAB)**

- Figure 1-1** San Pedro River Watershed General Location Map
- Figure 2-1** Southeasterly View of the San Pedro River Channel Eroding Older Basin-Fill Deposits and Other Distinguishable Geomorphic Processes and Sedimentary Features
- Figure 2-2** Location Map of AZGS Site Investigations of Tributary Drainages
- Figure 2-3** Location of Wells Used Analysis of Water Elevations
- Figure 2-4** 1968 Water Elevations for San Pedro River Miles 114 to 82
- Figure 2-5** 1990 Water Elevations for San Pedro River Miles 114 to 82
- Figure 2-6** 2006 Water Elevations for San Pedro River Miles 114 to 82
- Figure 2-7** San Pedro River Watershed Reach Location Map
- Figure 3-1** Tributary Drainage Areas of the San Pedro River
- Figure 3-2** Determination of Large Tributary Drainage Areas

APPENDICES

(DVD)

APPENDIX A: COURT DOCUMENTS

- A-1 *Southwest Cotton* (Arizona Supreme Court) (1931)
- A-2 *Gila River II* (Arizona Supreme Court) (1993)
- A-3 1994 Adjudication Court Subflow Order
- A-4 *Gila River IV* (Arizona Supreme Court) (2000)
- A-5 2004 Special Master's Subflow Report
- A-6 2005 Adjudication Court Order
- A-7 2010 Adjudication Court Order
- A-8 2012 Adjudication Court Minute Entry
- A-9 2012 Adjudication Court Order
- A-10 2013 Adjudication Court Minute Entry

APPENDIX B: AZGS DOCUMENTS

- B-1 ADWR/AZGS Agreement
- B-2 2014 San Pedro Report
- B-3 2014 Tributary Site Report

APPENDIX C: SUBFLOW ZONE MAPS (Workmap series- maps 1 through 33)

APPENDIX C-1: SUBFLOW ZONE MAPS (Workmap series with imagery and topography- maps 1 through 33)

APPENDIX D: DATASETS FOR WORKMAPS

- D-1 Professional-Level Lithology Logs Table
- D-2 Driller Logs Table
- D-3 GWSI Water Level Measurement Tables for 1968, 1990 and 2006