

TABLES

TABLE 3-1. DELINEATION METHODOLOGY PROJECT WORK TASKS

TASK	DESCRIPTION
1	Analyze applicable court rulings and instructions concerning scientific principles
2	Define goals and objectives for methodology and subflow zone delineation
3	Simplify details of surface geologic mapping while minimizing interpretation and focusing reader attention
4	Select potential indicators of floodplain Holocene alluvium and available data sources
5	Develop, test and finalize Geology & Topography analysis methods
6	Develop, test and finalize Lithology & Well Level analysis methods
7	Develop, test and finalize Riparian analysis methods
8	Develop methods for applying Setbacks for Side Recharge
9	Select analysis areas for comprehensive watershed methodology
10	Develop standardized methods for organizing information at every river mile
11	Develop standardized methods for comprehensive analysis of subflow zone delineation
12	Perform draft comprehensive analysis for limited reach and present results

TABLE 3-2. ANALYSIS AREAS FOR COMPREHENSIVE WATERSHED METHODOLOGY¹

ANALYSIS AREA	DOWNSTREAM LANDMARK	UPSTREAM LANDMARK	LENGTH²
Winkelman	Gila Confluence	USGS 09472500 nr Mammoth	23
Redington-Mammoth	USGS 09472500 nr Mammoth	USGS 09472050 nr Redington	28
Narrows-Redington	USGS 09472050 nr Redington	USGS 09471800 at The Narrows	31
Benson	USGS 09471800 at The Narrows	USGS 09471550 at Fairbank	37
Sierra Vista (Lower)	USGS 09471550 at Fairbank	Narrows at Lewis Springs	15
Sierra Vista (Upper)	Narrows at Lewis Springs	US-Mexico Border	23
Aravaipa Creek	San Pedro Confluence	Predevelopment Perennial/Intermittent Flow ³	36
Babocomari River	San Pedro Confluence	Predevelopment Perennial/Intermittent Flow ³	21

Notes:

¹ Analysis Areas are depicted on Figure 3-1.

² Lengths in miles measured downstream to upstream for San Pedro River (157), Aravaipa Creek (36) and Babocomari River (21).

³ Upstream extent of predevelopment perennial or intermittent flow identified in 2009 Subflow Report.

TABLE 3-3. SURFACE GEOLOGY BASE MAP UNITS AND AGE AND NAMING CONVENTIONS¹

HOLOCENE DEPOSITS		PLEISTOCENE DEPOSITS	
Holocene River Alluvium	Qycr, Qy1r, Qy2r, Qy3r, Qy4r	Late Pleistocene River Alluvium	Qi3r
Holocene Piedmont Alluvium	Qy, Qyc, Qy1, Qy1f, Qy2, Qyaf, Qy3	Older Pleistocene River Alluvium	Qcr, Qir, Qi1r, Qi1I?, Qi2r, Qor
Other Holocene Deposits	Qys, Qyp, Qp, Qs, Qyi	Pleistocene Piedmont Alluvium	Qi, Qi1, Qi2, Qi2a, Qi2b, Qi3, Qi3a, Qi3c, Qiu, Qo, Qcg
TERTIARY AND OLDER DEPOSITS			
Tertiary Deposits	QTa, QTbf, QTcg, QTcr, QTcs, QTs, QTsc, QTsd, QTsf, QTsl, QTsr, QTs, Tq, Tqa, Tqc, Tqe, Tqf, Tql, Tqm, Tqp, Tqr, Tqs, Tqse, Ts, Tsd, Tsdl, Tsp, Tsy	Bedrock	Ea, Eal, Eam, Eau, Eb, db, Dm, ds, gru, Jtrm, Jtrms, Ka, Kad, Kai, Kam, Kap, Kb, Kbi, Kdx, Kg, Kgs, KJb, Kl, Kr, Kra, Krd, Krt, Ks, Kt, Ktx, Ku, Kux, Kuxa, Me, Mzs, Pc, Pcn, Pe, PhMet, pi, PPeht, PPet, Ps, py, Qc, Ql, Qt, QTC, Qtc, Ta, Tad, Tar, Taru, Tcb, Tcd, Tcg, Tcv, Tg, Tgm, Tgv, Th, Thh, Thj, TKh, TKm, tl, Tlav, Tro, Trx, Tsc, Tsmm, Tsmv, Ttb, tu, Tuav, Tvm, Tw, Twt, Xdj, Xgj, Xp, Yd, Yds, Ydsb, Ym, Yo, Yoa, Yp, Yt

Notes:

¹ Map units and age and naming conventions are described in a 2009 report by the Arizona Geological Survey (AZGS). In addition, mapped as "Disturbed" are areas that are heavily disturbed due to agriculture or extensive excavation/construction where units were not determined.

TABLE 3-4. TEMPLATE FOR RIVER MILE SUMMARY - ANALYSIS TABLES

RIVER MILE SUMMARY/ANALYSIS WORKSHEET	Analysis Area: _____					Analysis Subarea: _____				
River Mile Posts →	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+8	X+9
Landmarks										

ANALYSIS	Riparian Growth	Mesquite-Salt Cedar									
		Cottonwood-Willow									
	Information from 'geologist logs' or other professional work										
	Results of Water Level Analysis										
	Results of Cross-Section Analysis										

EAST SIDE OF RIVER	Confluences with Significant Tributary Side Drainages									
	Pre-Holocene Bounding Geology	Age								
GEOLOGY BASE & FHA BASE INFORMATION		Width of "Inner Limit"								
		Width of "Outer Limit"								
WEST SIDE OF RIVER	Pre-Holocene Bounding Geology	Age								
	Confluences with Significant Tributary Side Drainages									

TABLE 4-1. FINDINGS OF PRELIMINARY TOPOGRAPHIC CROSS-SECTION ANALYSIS FOR SAMPLE SUBAREA

IDENTIFIED 1ST SIGNIFICANT TOPOGRAPHIC FEATURE TO WEST OF RIVER					CROSS-SECTION LINE	IDENTIFIED 1ST SIGNIFICANT TOPOGRAPHIC FEATURE TO EAST OF RIVER				
Notes	beyond "outer"	at "outer limit"	between "inner" & "outer"	at "inner limit"		at "inner limit"	between "inner" & "outer"	at "outer limit"	beyond "outer"	Notes
Location of known limit of FHA.	NA				82-A*	+				
		+			82-B				+	"Outer" limit extrapolated at this location.
		+			82-C			+		
		+			83-A		+			Feature may be related to a side drainage. Area for further investigation.
		+			83-B*			+		
			+		84-A	+		+		"Inner" and "outer" limits nearly coincide.
			+		85-A*	<i>No significant slope breakpoints or other features</i>				Section line skewed from normal. Repeat using re-oriented section line.
		+			86-A	+				
	<i>No significant slope breakpoints or other features</i>				87-A	NA				Location of known limit of FHA.
		+			88-A*			+		
			+		88-B*		+			
Location is at edge of extrapolated "outer" limit.	+				89-A*		+			
		+			90-A*		+			
			+		90-B			+		

Notes:

An asterisk (*) denotes a cross-section for which a figure is included in this report. NA - Not Applicable