

Appendix A - Project Demand Calculation, Page 1 of 4

1. Estimate Banning Ranch Demands

1.a. Given: Banning Ranch Planning per November 20, 2009 Planned Community Development Table (FORMA)

Land Use District	Area (ac)	Dwelling Units	Density (DU/ac)	Comm. Area (ft ²)	Hotel Rooms	Irrigation Type
Open Space / Public Parks / Recreation						
Open Space	251.6					None
Community Park	28.0					Full
Bluff Park	20.6					Mimic Natural
Interpretive Parks	3.7					Full
Subtotal Open Space / Public Parks / Recreation	303.9					
Visitor-Serving Resort / Residential / Commercial						
Visitor-Serving Resort	5.3				75	Full
Low Density Residential	26.1	164	6.3			Full
Low-Medium Density Residential	11.8	86	7.3			Full
Medium Density Residential	27.2	308	11.3			Full
Visitor-Serving Resort (Residential)	5.8	87	15.0			Full
Mixed-Use (Residential)	19.2	730	38.0			Full
Mixed-Use (Commercial)	1.7			75,000		Full
Subtotal Visitor-Serving Resort / Residential / Commercial	97.1	1,375		75,000	75	
Total Project	401.0	1,375		75,000	75	

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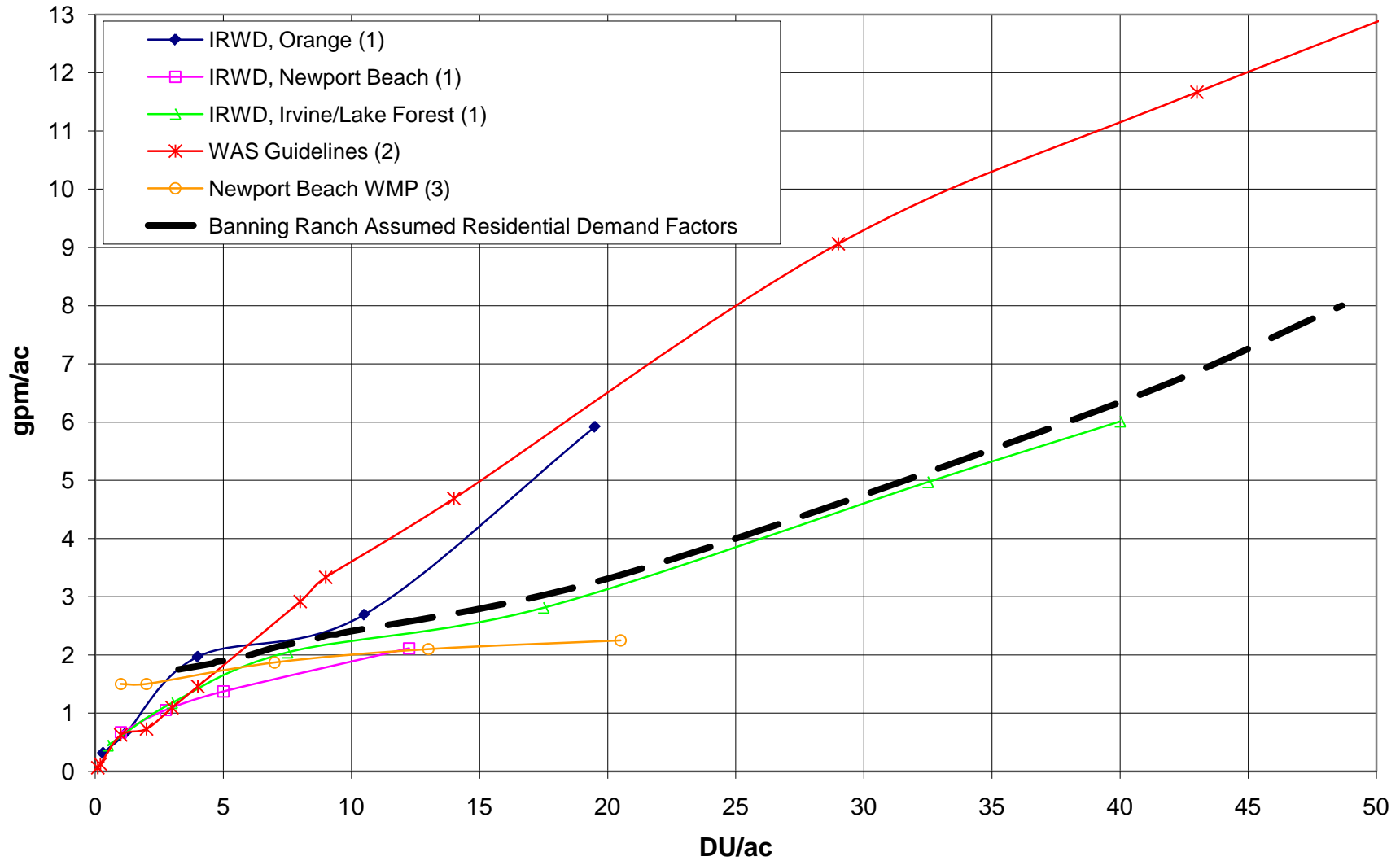
Code Land Use Description	Agency (Reference)	Average Density (DU/ac)	Local Demands			Irrigation Demand		Total Demand	
			Interior	Comm. Area (ft ²)	Total	Irrig. Area	Irrig. Factor	(gpd/ac)	(gpm/ac)
			(gpd/DU)			(%)	(gpd/ac)		
RESIDENTIAL									
1111 Res - Rural Density	IRWD, Orange (1)	0.3	300	750	1050	5%	2,800	455	0.3
1121 Res - Estate Density	IRWD, Orange (1)	1.2	300	300	600	8%	2,900	952	0.7
1131 Res - Low Density	IRWD, Orange (1)	4	300	300	600	15%	2,900	2,835	2.0
1141 Res - Low-Medium Density	IRWD, Orange (1)	10.5	200	100	300	22%	3,300	3,876	2.7
1161 Res - Medium Density	IRWD, Orange (1)	19.5	225	185	410	17%	3,100	8,522	5.9
1133 Res - Low Density	IRWD, Newport Beach (1)	1	250	190	440	17%	3,100	967	0.7
1153 Res - Medium-Low Density	IRWD, Newport Beach (1)	2.75	250	200	450	10%	2,800	1,518	1.1
1163 Res - Medium Density	IRWD, Newport Beach (1)	5	190	60	250	22%	3,300	1,976	1.4
1183 Res - High Density	IRWD, Newport Beach (1)	12.25	155	20	175	25%	3,600	3,044	2.1
1122 Res - Estate Density	IRWD, Irvine/Lake Forest (1)	0.5	300	600	900	7%	2,800	646	0.4
1132 Res - Low Density	IRWD, Irvine/Lake Forest (1)	3	225	180	405	16%	3,000	1,695	1.2
1162 Res - Medium Density	IRWD, Irvine/Lake Forest (1)	7.5	200	110	310	20%	3,100	2,945	2.0
1172 Res - Medium-High Density	IRWD, Irvine/Lake Forest (1)	17.5	165	15	180	25%	3,600	4,050	2.8
1182 Res - High Density	IRWD, Irvine/Lake Forest (1)	32.5	180	20	200	20%	3,300	7,160	5.0
1192 Res - High-Rise Density	IRWD, Irvine (1)	40	180	20	200	20%	3,300	8,660	6.0
Residential	WAS Guidelines (2)	0.1						90	0.1
Residential	WAS Guidelines (2)	0.2						180	0.1
Residential	WAS Guidelines (2)	1						900	0.6
Residential	WAS Guidelines (2)	2						1,050	0.7
Residential	WAS Guidelines (2)	3						1,575	1.1
Residential	WAS Guidelines (2)	4						2,100	1.5
Residential	WAS Guidelines (2)	8						4,200	2.9
Residential	WAS Guidelines (2)	9						4,800	3.3
Residential	WAS Guidelines (2)	14						6,750	4.7
Residential	WAS Guidelines (2)	29						13,050	9.1
Residential	WAS Guidelines (2)	43						16,800	11.7
Residential	WAS Guidelines (2)	73						24,150	16.8
Residential Family (average)	Newport Beach WMP (3)	1						2,160	1.50
Residential Low (average)	Newport Beach WMP (3)	2						2,160	1.50
Residential Medium Low (average)	Newport Beach WMP (3)	7						2,693	1.87
Residential Medium (average)	Newport Beach WMP (3)	13						3,024	2.10
Residential High (average)	Newport Beach WMP (3)	20.5						3,240	2.25
COMMERCIAL									
1240 Comm - Institutional	IRWD (1)	8.9	39.38	5.62	45	50%	2,750	1,775	1.2
Hotel (per number of floors)	WAS Guidelines (2)							2,800	1.9
General Commercial	Newport Beach WMP (3)							1,757	1.2
PARKS									
1820 Park - Community	IRWD (1)					90%	3,400	3,060	2.1
1830 Park - Regional	IRWD (1)					85%	2,100	1,785	1.2
Landscaped Park	WAS Guidelines (2)							1,800	1.3

References

- (1) IRWD Water Resources Master Plan, Table 3-1, July 16, 2003
- (2) Water Agency Standards Guidelines, Water Planning, Table 4-1-1, September 7, 2004
- (3) Newport Beach Master Plan, Tables 4-2 and 4.4, December 1999

1.c. Plot Residential Demand Factors and Assume Banning Demand Factors (next page)

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Land Use District	Area (ac)	Density (DU/ac)	Demand Factor (gpm/ac)	Demand (gpm)	Demand (af/yr)
Open Space / Public Parks / Recreation					
Open Space	251.6		0.00	0.0	0.0
Community Park	28.0		2.00	56.0	90.3
Bluff Park	20.6		1.20	24.7	39.8
Interpretive Parks	3.7		2.00	7.4	11.9
Subtotal Open Space / Public Parks / Recreation	303.9			88.1	142.0
Visitor-Serving Resort / Residential / Commercial					
Visitor-Serving Resort	5.3		2.00	10.6	17.1
Low Density Residential	26.1	6.3	2.03	53.0	85.5
Low-Medium Density Residential	11.8	7.3	2.16	25.5	41.1
Medium Density Residential	27.2	11.3	2.53	68.8	111.0
Visitor-Serving Resort (Residential)	5.8	15.0	2.87	16.6	26.8
Mixed-Use (Residential)	19.2	38.0	6.03	115.8	186.8
Mixed-Use (Commercial)	1.7		1.20	2.0	3.2
Subtotal Visitor-Serving Resort / Residential / Commercial	97.1			292.3	471.5
Total Project	401.0			380.4	613.5