

RESOLUTION NO. 2012-17 UA

A RESOLUTION OF THE BANNING UTILITY AUTHORITY OF THE CITY OF BANNING, CALIFORNIA, ADOPTING THE ADDENDUM TO THE 2010 URBAN WATER MANAGEMENT PLAN

WHEREAS, the City of Banning is an Urban Water Supplier for the water service area of the City of Banning and was therefore required to prepare an Urban Water Management Plan ("UWMP") which assess the reliability of its water sources over a 20 year planning horizon considering normal and dry years; and

WHEREAS, UWMPs are due on December 31 of years ending in 0 and 5, but a 6-month extension was granted for submittal of the 2010 UWMPs to provide additional time for water suppliers to address new requirements; and

WHEREAS, City of Banning staff submitted its most recent UWMP on July 22, 2011; and

WHEREAS, recently the Department of Water Resources ("DWR") requested revisions to specific sections in the 2010 UWMP, which have been addressed and our contained in the attached Technical Memorandum (Exhibit "A"); and

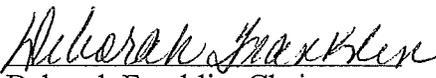
WHEREAS, in advance of the public hearing held this day, the notice of public hearing for the adoption of the Addendum to the 2010 Urban Water Management Plan was advertised in the Press Enterprise on November 30, 2012 and December 7, 2012 as shown in Exhibit "B"; and

NOW, THEREFORE, BE IT RESOLVED by the Banning Utility Authority of the City of Banning as follows:

SECTION 1. The Addendum to the 2010 Urban Water Management Plan is hereby adopted and ordered filed with the City Clerk.

SECTION 2. The Public Works Director is hereby authorized and directed to file the Addendum to the 2010 Urban Water Management Plan with the California Department of Water Resources within 30 days of this Resolution.

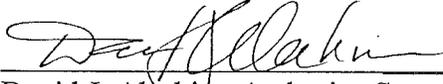
PASSED, APPROVED AND ADOPTED this 11th day December, 2012.


Deborah Franklin, Chairperson
Banning Utility Authority

ATTEST:


Marie A. Calderon, Secretary
Banning Utility Authority

**APPROVED AS TO FORM
AND LEGAL CONTENT:**



David J. Aleshire, Authority Counsel
Aleshire & Wynder, LLP

CERTIFICATION:

I, Marie A. Calderon, Secretary of the Banning Utility Authority of the City of Banning, California, do hereby certify that the foregoing Resolution No. 2012-17 UA was adopted by the Utility Authority of the City of Banning at a joint meeting thereof held on the 11th day of December, 2012, by the following vote, to wit:

AYES: Boardmembers Botts, Miller, Peterson, Welch, Chairperson Franklin

NOES: None

ABSENT: None

ABSTAIN: None



Marie A. Calderon, Secretary
Banning Utility Authority
City of Banning, California

CERTIFIED TO BE A TRUE AND CORRECT
COPY OF THE ORIGINAL DOCUMENT ON
FILE IN THE OFFICE OF THE CITY CLERK.

BY 
TITLE *City Clerk*
DATE *2-27-13*

EXHIBIT "A"

TECHNICAL MEMORANDUM

**ADDENDUM TO THE CITY OF BANNING 2010 URBAN
WATER MANAGEMENT PLAN**

Technical Memorandum

To: Mr. Duane Burk
Public Works Director
City of Banning

From: Dennis E. Williams, Ph.D.
President
GEOSCIENCE Support Services, Inc.

Date: November 26, 2012

Subject: **Addendum to City of Banning 2010 Urban Water Management Plan**

1.0 INTRODUCTION

1.1 Background and Purpose

The City of Banning submitted the 2010 Urban Water Management Plan (2010 UWMP) July 22, 2011, upon review by the Department of Water Resources (DWR) it was requested that additional information be included in the document to be consistent with updated management practices being implemented by the City since the adoption in 2011. The following sections are addendums to the specific sections of the City of Banning 2010 Urban Water Management Plan issued July 22, 2011 and shall supersede similar information previously provided for the cited sections.

2.0 BASELINE AND WATER USE TARGETS – ADDENDUM TO SECTION 3.2

The 2010 UWMP addressed the selection of base daily per capita water use using Technical Methodology 3: Base Daily Per Capita Water Use. The following table summarizes the base period determination.

Table 3-6a
Base Daily Per Capita Water Use - 2001 through 2010

Base Period Year		Distribution System Population ¹	Daily System Gross Water Use (mgd)	Annual Daily Per Capita Water Use (gpcd)
Sequence Year	Calendar Year			
Year 1	2001	24,639	8.95	363
Year 2	2002	25,662	8.75	341
Year 3	2003	27,608	8.96	324
Year 4	2004	28,055	9.30	332
Year 5	2005	28,250	8.41	298
Year 6	2006	28,234	9.14	324
Year 7	2007	28,193	9.14	324
Year 8	2008	28,551	8.57	300
Year 9	2009	28,751	8.26	287
Year 10	2010	29,603	7.57	256
Base Daily Per Capita Water Use²				315

¹Population values were taken from the CDOF Table E-5, however please note that data estimated for January 1 of each year was used as the ending population estimate for the previous year (e.g. population estimate for January 1, 2010 in CDOF Table E-5 is 28,751. This value is used for the year 2009 above). Population value for 2010 was taken from the 2010 Census data dated April 1, 2010.

² Average daily per capita water use for the base period is calculated by dividing the daily system gross water use converted to gallons per day by the total population for the year and then taking the average daily per capita water use for the base period 2001 through 2010.

The 10 year baseline per capita water use is 315 gpcd using a ten-year average ending between January 1, 2001 and December 31, 2010. The 2015 interim reduction of 10% is 283 gpcd and the 2020 reduction target of 20% is 252 gpcd. The DWR requires a confirmation of the ten-year 2020 reduction target by comparing the value to a five-year base period. The ten-year 2020 reduction target cannot exceed 95% of the 5-year base daily per capita water use. Table 3-6b shows the five-year baseline per capita water use is 298 gpcd using a five-year average ending between January 1, 2006 and December 31, 2010. The five-year water use confirms that the 2020 target of 252 gpcd is well below 95% of the five-year water use of 283 gpcd, and therefore meets a minimum threshold.

Table 3-6b
Confirm Base Daily Per Capita Water Use Target - 2006 through 2010

Base Period Year		Distribution System Population ¹	Daily System Gross Water Use (mgd)	Annual Daily Per Capita Water Use (gpcd)
Sequence Year	Calendar Year			
Year 1	2006	28,234	9.14	324
Year 2	2007	28,193	9.14	324
Year 3	2008	28,551	8.57	300
Year 4	2009	28,751	8.26	287
Year 5	2010	29,603	7.57	256
Base Daily Per Capita Water Use²				298
95% of 5 year Base Daily Per Capita Water Use				283

¹Population values were taken from the CDOF Table E-5, however please note that data estimated for January 1 of each year was used as the ending population estimate for the previous year (e.g. population estimate for January 1, 2010 in CDOF Table E-5 is 28,751. This value is used for the year 2009 above). Population value for 2010 was taken from the 2010 Census data dated April 1, 2010.

² Average daily per capita water use for the base period is calculated by dividing the daily system gross water use converted to gallons per day by the total population for the year and then taking the average daily per capita water use for the base period 2001 through 2010.

3.0 CURRENT AND PLANNED WATER SUPPLIES AND SOURCES

3.1 Available Water Supplies – Addendum to Section 4.1

During the review of the 2010 UWMP by DWR, it was identified that return flows listed in Table 4-1 from recycled water irrigation as well as return flows from potable residential irrigation should not be considered supplies available to the City. Upon completion of the expansion of the waste water treatment plant (Phase I), the recycled water applied for irrigation purposes to new developments will now be available to various storage units. Therefore a percent of this water as return flows have been added to the respective storage unit's maximum perennial yield, as established in the *Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin* (Geoscience, 2011). The revised Table 4-1 is presented below.

**Table 4-1
Current and Projected Water Supplies
for the City of Banning [acre-ft]**

Water Supply Source	2010*	2015	2020	2025	2030	2035
Banning Storage Unit ^{1,2,3}	1,218	1,222	1,231	1,241	1,251	1,261
Banning Bench Storage Unit ^{1,3}	1,472	2,183	2,183	2,183	2,183	2,183
Banning Canyon Storage Unit ¹	3,726	4,070	4,070	4,070	4,070	4,070
Beaumont Storage Unit ⁴	1,372	2,514	2,514	2,514	2,514	2,514
Cabazon Storage Unit ^{3,5}	565	1,299	1,519	1,762	2,030	2,326
Recycled Water Supply ⁶	0	1,680	1,680	1,680	1,680	1,680
SWP Table A Entitlement ⁷	1,200	2,595	2,595	2,595	2,595	2,595
Total	9,552	15,563	15,792	16,045	16,323	16,628

* 2010 values are actual supplies utilized by the City in 2010. The DWR Guidebook requires inclusion of 2010, however as the deadline for submittal of the UWMP has been extended to 2011, all 2010 values are not projections or estimates, but are actual values.

¹ Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin, Geoscience 2011.

² Values include 25% return flow from all irrigation purposes where potable water is used (50% of residential water use is used for landscape irrigation for new developments only [i.e. Black Bench and Loma Linda Development areas]). Returns flows for Beaumont Storage Unit are not counted, as the City has an allotment of the Safe Yield. All return flows within the Beaumont Basin from imported water are dedicated for overdraft mitigation. Return flows in the Banning Storage Units are considered for developments projected for construction which will add new recharge to the storage units (total of 1,044 EDUs at build out - assumed to be 2061) along with 20X2020 conservation.

³ Values include 25% return flow from all irrigation purposes inside and outside the BMZ for Phase I WWTP expansion project Assumes Phase I will be completed in 2014.

Continued Footnotes from Table 4-1:

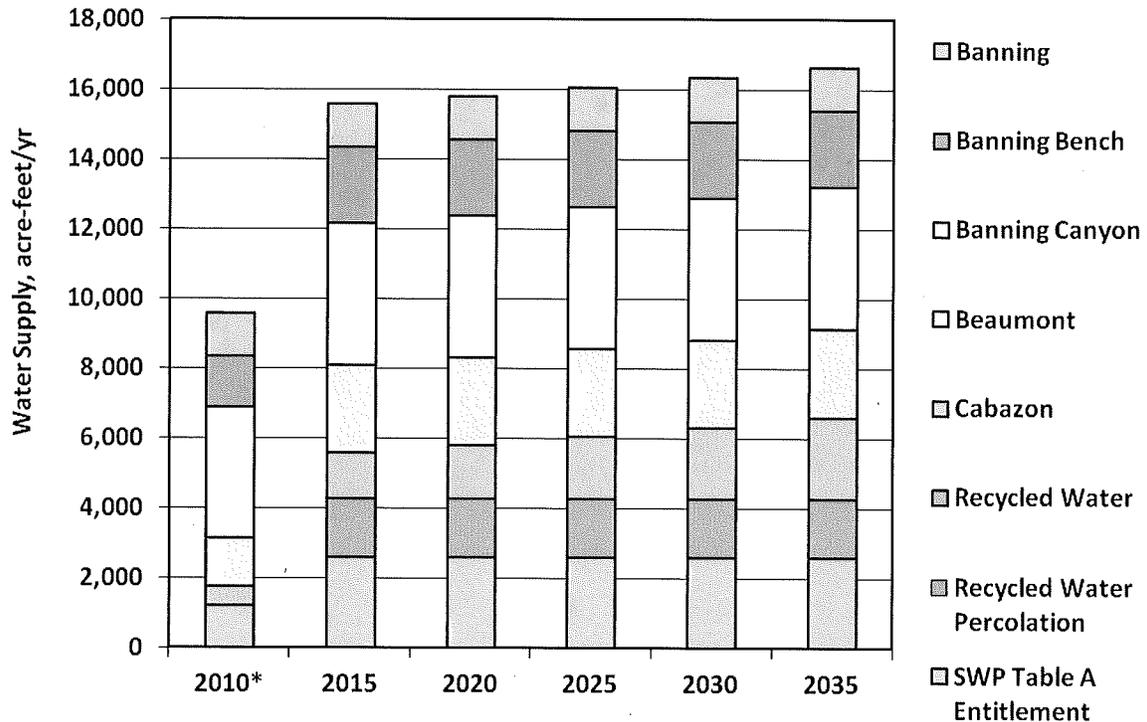
⁴ City of Banning average annual production from City of Banning Wells within the Beaumont Storage Unit since the basin was adjudicated in 2004.

⁵ Cabazon production supply includes approximately 710 acre-ft/yr, which has been the average annual production from the City of Banning Well C-6, and additional water which may be utilized by the City as described in Maximum Perennial Yield Estimates Report, Geoscience, 2011 (see Appendix F). See Section 4.2.7 for explanation of estimates. These values assume that Phase I of the WWTP Expansion will be completed by 2014, and 1,680 acre-ft/yr will be treated to Tertiary standards and used to offset potable demand, therefore the 1,680 acre-ft/yr is excluded from these estimates.

⁶ Values from Initial Study/Mitigated Negative Declaration, Wastewater Treatment Plant Expansion and Phase I Recycled Water System, May 2008 prepared by the City of Banning Water/Wastewater Utilities Department. Assumes WWTP Phase I will be completed by 2015.

⁷ Assumes 60% SGPWA SWP average reliability per DWR's Final Reliability Report 9/27/10; Assumes Banning's allocation of available SWP water is 25% of SGPWA Allotment, assumes EBX-II is on line by 2014.

Figure 4-1
Current and Projected Water Supplies
for the City of Banning



3.2 Banning Storage Unit – Addendum to Section 4.2.4

The safe yield of the Banning Storage Unit was estimated to be 1,130 acre-ft/yr (Geoscience, 2011). Additional supplies to the Banning Storage Unit will be available upon completion of Phase I of the waste water treatment plant expansion. These additional supplies are the result of return flows from recycled water application from irrigation purposes where potable water would be used for new developments within the Banning Storage Unit. In other words, return flows resulting from additional applied water represent a supplemental yield to the Maximum Perennial Yield. Additionally, it is estimated that approximately 83 acre-ft/yr will return to the Banning Storage Unit in the form of return flows from the conversion of potable water use to recycled water use of the potential recycled water users identified in *The City of Banning Recycled Water Master Plan, 2006*. Phase I (Priority 1) potential recycled water users within the Banning Storage Unit are Neighborhood Park, Repplier Park and approximately 1/3 of the Caltrans roadway median (as shown on Figure 2.3 of the Recycled Water Master Plan) resulting in 331.7 acre-ft/year of applied recycled water, of which, approximately 25% will return to the storage unit as return flow.

3.3 Banning Bench Storage Unit – Addendum to Section 4.2.5

The safe yield of the Banning Bench Storage Unit was estimated to be 1,960 acre-ft/yr (Geoscience, 2011). Additionally, it is estimated that approximately 223 acre-ft/yr will return to the Banning Bench Storage Unit in the form of return flows from the conversion of potable water use to recycled water use of the potential recycled water users identified in *The City of Banning Recycled Water Master Plan, 2006*. Phase I potential recycled water users within the Banning Bench Storage Unit are Loma Linda Greenspace resulting in 892 acre-ft/year of applied recycled water, of which, approximately 25% will return to the storage unit as return flow. It should be noted that the *Recycled Water Master Plan* states that the Loma Linda Greenspace could potentially use 1,059 acre-ft/yr of recycled water however, due to the limitation of Phase I expansion, which will only supplying 1,680 acre-ft/yr of recycled water, and the fact that the Loma Linda development is geographically located farthest from the treatment plant of the Potential users identified in the Recycled Water Master Plan, it is assumed that this development will more than likely need to supplement its water demands with potable supply.

3.4 Cabazon Storage Unit – Addendum to Section 4.2.7

In addition to the supplies identified in the 2010 UWMP for 2010, 2015, 2020, 2025, 2030 and 2035 of 565 acre-ft/yr, 1,185 acre-ft/yr, 1,405 acre-ft/yr, 1,648 acre-ft/yr, 1,916 acre-ft/yr and 2,212 acre-ft/yr respectively, it is estimated that approximately 114 acre-ft/yr will return to the Cabazon Storage Unit in the form of return flows from the conversion of potable water use to recycled water use of the potential recycled water users identified in *The City of Banning Recycled Water Master Plan, 2006*. Phase I potential recycled water users within the Cabazon Storage Unit are Banning High School, Deutsch Company Park and approximately 1/3 of the Caltrans roadway median resulting in 457 acre-ft/year of applied recycled water, of which, approximately 25% will return to the storage unit as return flow.

4.0 DEMAND MANAGEMENT MEASURES

Since completion of the Final 2010 UWMP on July 22, 2011, there have been some revisions to the implementation of some demand management measures. The following discusses BMP 1, 6 and 8 and the City's current implementation or the City's plan to implement these measures in the next five years the discussion supersedes the sections presented in the City of Banning 2010 UWMP dated July 2011.

4.1 BMP 1 – Water Surveys Programs for Single-Family Residential and Multi-Family Residential Customers – Addendum to Section 6.2

This BMP consists of developing and implementing a strategy targeting and marketing water use surveys to single-family residential and multi-family residential customers. For each reporting period, direct contact via letter or telephone shall be made to not less than 1.5% of single-family residential customers and 1.5% of multi-family residential customers, with a 10-year target of 15%. Water use surveys shall address indoor and outdoor components and contain, at a minimum, the following elements:

- Check for leaks, including toilets, and faucets, and check meters.
- Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, as necessary.
- Check toilet flow rates and offer to install or recommend the installation of a displacement device or direct the customer to an Ultra-Low Flush Toilet (ULFT) replacement program, as necessary; replace leaking toilet flapper, as necessary.
- Check irrigation system and timers.
- Review or develop customer irrigation schedule.
- Measure currently landscaped area (recommended).
- Measure total irrigable area (recommended).

4.1.1 Implementation or Scheduled Implementation– Addendum to Section 6.2.1

The City of Banning plans to implement this BMP within the next five years. The City shall develop and implement a strategy for targeting and marketing water use surveys to single-family and multi-family residential customers by the end of the first reporting period following the date that the implementation was set to commence. The program shall continue until water surveys have been completed for 15% of single-family residential customers and 15% of multi-family residential customers in a ten year period.

4.1.2 Methods to Evaluate Effectiveness– Addendum to Section 6.2.2

This BMP shall be considered effective if water surveys have been completed for 15% of single-family residential customers and 15% of multi-family residential customers within ten years. The CUWCC estimates the potential water savings for homes constructed prior to 1980 are 9 gallons per day per capita (gpcd) and 3.4 gpcd for homes constructed post 1980. In both situations, outdoor use reductions are estimated to be 10%.

4.2 BMP 6 – High-Efficiency Washing Machine Rebate Programs– Addendum to Section 6.7

This BMP is currently being implemented by the City of Banning’s Municipal Electric Company through the City of Banning Public Benefits Department and is available to residential electric customers. The Southern California Gas Company also offers rebates to the City’s residential gas customers. The BMP consists of financial incentives for the purchase and use of high-efficiency clothes washing machines (HEWs) that meet ENERGY STAR minimum standards of 15 gallons of water per load. Energy Star is a voluntary partnership between the U.S. Department of Energy, the U.S. Environmental Protection Agency, product manufacturers, local utilities, and retailers. Partners help promote efficient products by labeling them with the ENERGY STAR logo and educating consumers about the benefits of energy and water efficiency. The City’s residents qualify for rebates by purchasing ENERGY STAR certified HEWs which include \$75, as of January 1, 2012 from the City’s electric company, as well as a \$35 rebate from Southern California Gas Company.

4.2.1 Implementation or Scheduled Implementation– Addendum to Section 6.7.1

The City of Banning’s Municipal Electric Company, as well as the Southern California Gas Company both currently offer the City’s residents rebates for purchasing ENERGY STAR certified HEWs.

4.3 BMP-8 – School Education Programs– Addendum to Section 6.9

Implementation methods shall consist of implementing a school education program to promote water conservation and water conservation related benefits. Programs shall include working with school districts and private schools in the water suppliers’ service area to provide instructional assistance,

educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Education materials shall meet the state education framework requirements and grade appropriate materials shall be distributed to grade levels K-3, 4-6, 7-8, and high school.

4.3.1 Implementation or Scheduled Implementation– Addendum to Section 6.9.1

The City plans to implement this BMP April of 2013 by means of the Water Fund. The City has a program where Public Works employees can visit local schools and make presentations on water conditions in the San Geronio Pass area to educate students on the value of water and water conservation. Educational brochures are also made available to the students. The City plans to encourage more student involvement and awareness by offering scholarships to the winners of water related contests.

EXHIBIT "B"

**PRESS ENTERPRISE
NOVEMBER 30, 2012 AND DECEMBER 7, 2012**

NOTICE OF
PUBLIC HEARING

PURSUANT TO LAW, notice is hereby given of a Public Hearing before the City Council and the Banning Utility Authority of the City of Banning, to be heard December 11, 2012 at 5:00 p.m. at the Banning Civic Center Council Chambers, 99 E. Ramsey St., Banning, California, to consider adopting the City of Banning Addendum to the 2010 Urban Water Management Plan. An informational presentation regarding the Addendum to the 2010 Urban Water Management Plan will be provided at the same location on December 11, 2012 at 5:00 p.m. ALL INTERESTED PARTIES are invited to attend said hearing and present oral or written testimony on the matter or to send written comments to the City Clerk, P.O. Box 998, Banning, CA 92220. The City anticipates the Addendum to the 2010 Urban Water Management Plan will be available for public review beginning December 12, 2012 at the office of the City Clerk or at the Engineering Division of the Public Works Department, located at 99 E. Ramsey Street. This document will also be made available on-line at HYPERLINK

"http://www.ci.banning.ca.us/2010_uwmp" www.ci.banning.ca.us/2010_uwmp_addendum. Note: If you challenge this matter in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Banning at, or prior to, the public hearing. Questions regarding this matter should be directed to City of Banning, Public Works Department at (951) 922-3130. BY ORDER OF THE CITY CLERK of the City of Banning, California. Date: November 26, 2012 Publish: Record Gazette November 30, 2012 December 7, 2012 Marie A. Calderon City Clerk Publish The Record Gazette No. 60933 11/30 & 12/07, 2012

GEOSCIENCE Support Services, Inc.

**DOCUMENT
TRANSMITTAL**

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Mailing Address: P. O. Box 220, Claremont, CA 91711

Physical Address: 620 W. Arrow Hwy, Ste. 2000, La Verne, CA 91750

www.gssiwater.com

To: Peter Brostrom

From: Dennis E. Williams

Company: DWR Water Use & Efficiency

Date: 4-Mar-2013

cc:

via: FedEx

Subject: Resolution No. 2012-17 UA

QUANTITY	DESCRIPTION
1	Resolution No. 2012-17 UA

Received By: _____

Date: _____

Time: _____