THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

September 14, 2011

Mr. Paul J. Matuska
Group Manager
Lower Colorado Regional Office
U.S. Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Mr. Matuska:

Estimates of Metropolitan Monthly Diversions for Calendar Year 2012

This letter is in response to your August 1, 2011, letter to Mr. Roger K. Patterson requesting The Metropolitan Water District of Southern California's (Metropolitan): (1) best estimates of monthly diversion requirements for calendar year 2012, and (2) completion of a questionnaire as part of the U.S. Bureau of Reclamation's (Reclamation) consultations under Title 43, Code of Federal Regulations, Part 417. This letter also addresses Metropolitan's Intentionally Created Surplus (ICS) plans for 2012.

Estimate of Metropolitan Diversions for Calendar Year 2012

Metropolitan's initial estimate of its diversions for calendar year 2012 totals 719,700 acre-feet. Metropolitan's estimated available supply during the year and a monthly diversion schedule is tabulated in Enclosure 1. The details behind a number of components of Metropolitan's estimated available supply are described in Enclosure 2.

Estimated available supply to Metropolitan is based on an ICS Surplus determination and projected use of water by holders of present perfected rights and priorities 1 through 3 in California. Metropolitan has the capability to divert and beneficially use more than 1.25 million acre-feet in calendar year 2012, however, that full amount of water may not be available to Metropolitan during the year. Should unused California apportionment not incorporated in the tabulation of Enclosure 1 become available during the year, Metropolitan plans to divert such water. Metropolitan may also develop additional water conservation programs or make interstate banking arrangements with Nevada or Arizona which could affect the amount of water available for diversion in 2012. Any such new arrangements would be followed with a revised estimate of 2012 diversions.

The diversion estimates shown in Enclosure 1 incorporate Metropolitan's plan to create 200,000 acre-feet of Extraordinary Conservation ICS during calendar year 2012 as documented in Metropolitan's July 25, 2011, letter to Mr. Steve Hvinden. Metropolitan's plan to create 200,000 acre-feet of Extraordinary Conservation ICS is based on projections of monthly demands for Metropolitan's supplies by its member agencies and the supply of water that may be available to Metropolitan from the State Water Project during calendar year 2012. As the calendar year progresses, Metropolitan may find it necessary to divert additional Colorado River water and divert the extra-ordinary supplies developed and create less ICS. If needed due to unforeseen circumstances, Metropolitan may request delivery from its ICS accounts. If conditions require a modification to its ICS plans, Metropolitan will submit to Reclamation a revised estimate of its diversions for calendar year 2012.

Part 417 Consultation Questionnaire

Metropolitan's responses to the Part 417 Consultation Questionnaire are contained in Enclosure 3.

If you have any questions regarding Metropolitan's estimate of diversions or the Part 417 Consultation Questionnaire, please contact Mr. Tom Ryan at (213) 217-6140.

Very truly yours,

Deven N. Upadhyay
Manager, Water Resource Management

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Enclosures (3)

cc: Ms. Halla Razak, P.E.
Colorado River Program Manager
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123

Enclosure 1

Metropolitan's Estimate of Diversions from the Colorado River for Calendar Year 2012

Water Budget Item	Amount (acre-feet)
Priority 4	550,000
Imperial Irrigation District (IID)-Metropolitan Water Conservation Program	85,000
Coachella Canal Lining Project (Metropolitan Exchange with San Diego County Water Authority [SDCWA])	24,500
Coachella Canal Lining Project (*2003 Allocation Agreement*)	4,500*
All-American Canal Lining Project (Metropolitan Exchange with SDCWA)	56,200
All-American Canal Lining Project (*2003 Allocation Agreement*)	11,500*
IID Transfer to SDCWA (Metropolitan Exchange with SDCWA)	90,000
Priority 1, 2, and 3b Use Below 420,000 Acre-feet (Amount Influenced by Metropolitan Funded Palo Verde Irrigation District Forbearance and Fallowing Program)	93,400
Unused Priority 3a	0
Miscellaneous and Indian Present Perfected Rights Use	-1,300
Lower Colorado Water Supply Project	2,900
Total Estimated Supply Available for Consumptive Use	**916,700**
Creation of Extraordinary Conservation ICS	-200,000
Total Estimated Consumptive Use	**716,700**
Estimated Return Flow Credit	3,000
Diversion for Emergency Delivery for Tijuana	0
Total Estimated Diversion	**719,700**

* See table on following page for scheduled monthly diversions of water to be made available to Metropolitan pursuant to §7.6 of the October 2003 *Allocation Agreement*.

Enclosure 1

Monthly Diversion Schedule and Return Flow Estimates
(acre-feet)

Month	Gross Diversion	Diversions for Emergency Delivery for Tijuana	2003 Allocation Agreement Water Diversions	Return Flow
January	56,555	0	0	255
February	49,258	0	0	230
March	25,085	0	0	255
April	77,535	0	0	247
May	98,972	0	0	255
June	95,779	0	0	247
July	98,972	0	0	255
August	98,972	0	0	255
September	95,779	0	16,000	247
October	9,493	0	0	254
November	6,900	0	0	246
December	6,400	0	0	254
Total	719,700	0	16,000	3,000

Enclosure 2

Details of Metropolitan's Tabulation of Estimated Available Supply for Calendar Year 2012

Allocation of Water from the Coachella Canal Lining Project

The "Interim Determination by the Secretary of the Interior of the Quantity of Water Conserved by the Coachella Canal Lining Project and the Amount of Water Available for Allocation" (Determination), made on January 31, 2008, concluded that 30,850 acre-feet will be conserved from the Coachella Canal Lining Project beginning in 2009 through the term of the *Allocation Agreement*. The Determination provides that the volume of water available for allocation shall be the quantity conserved minus the volume of water taken from the Coachella Canal that is used for Lining Project mitigation.

As the conditions specified in Sections 7.2.1 and 7.2.2 of the *Allocation Agreement* have not yet been satisfied, 4,500 acre-feet is assumed to be available to Metropolitan in 2012. The remaining supply is available for allocation to the San Diego County Water Authority (Water Authority). Also, for the purposes of estimating Metropolitan's diversions for 2012 it is assumed that 1,850 acre-feet would be taken from the Coachella Canal for Lining Project mitigation.

The Determination provides that the Bureau of Reclamation (Reclamation) will review the amount of conserved water used for mitigation purposes on or near December 1 before allocating additional water, if any, to the Water Authority. Metropolitan urges Reclamation to undertake its review at the earliest possible time and to promptly notify Metropolitan of any adjustment to the volume of conserved water allocated to the Water Authority.

Allocation of Water from the All-American Canal Lining Project

The "Interim Determination by the Secretary of the Interior of the Quantity of Water Conserved by the All-American Canal Lining Project and the Amount of Water Available for Allocation", made on December 4, 2009, confirmed that the amount of water available for allocation is 67,700 acre-feet per year unless reduced by uncontrollable force or Colorado River shortage conditions. As the conditions specified in Sections 7.2.1 and 7.2.2 of the *Allocation Agreement* have not yet been satisfied, 11,500 acre-feet is assumed to be available to Metropolitan in 2012. The remaining supply of 56,200 acre-feet is allocated to the Water Authority.

Unused Priority 1, 2, and 3b

Metropolitan's estimate of available supply assumes that 2012 consumptive use under priorities 1, 2, and 3b would be 420,000 acre-feet less the volume of water saved under the Palo Verde Irrigation District/Metropolitan Forbearance and Fallowing Program. Metropolitan estimates that the 2012 savings from the Fallowing Program will be 93,400 acre-feet. Metropolitan understands that its supply is impacted by actual use under priorities 1, 2, and 3b pursuant to the October 10, 2003, *Colorado River Water Delivery Agreement*.

Unused Priority 3a

Metropolitan's estimate of available supply does not include unused Priority 3a water that may become available.

Lower Colorado Water Supply Project

It is estimated that approximately 2,900 acre-feet of the yield of the Lower Colorado Water Supply Project will be available to Metropolitan.

Enclosure 3

Replies of
The Metropolitan Water District of Southern California
to the U.S. Bureau of Reclamation's
Part 417 Consultation Questionnaire—Calendar Year 2012 Diversion Request

Metropolitan's Past and Projected Diversions of Colorado River Water

The following table provides an expanded accounting of actual pumping at the Whitsett Intake Pumping Plant, including water made available by the San Diego County Water Authority in accordance with the October 2003 *Colorado River Water Delivery Agreement*, and diversions made for emergency deliveries for Tijuana, Mexico.

(acre-feet)

Year	Actual Pumping from Lake Havasu	Water Made Available by the San Diego Water Authority	Emergency Delivery for Tijuana	Water Subject to Temporary Reregulation	Water Returned to River	Water Made Available by the Southern Nevada Water Authority for Storage[b]	Remaining Water for Metropolitan's Use
2011[a]	712,500	157,700	0	0	2,600	0	552,200
2010	1,101,590	151,507	0	0	2,529	0	947,554
2009	1,112,835	140,188	5,152	0	2,451	0	965,044
2008	913,289	80,582	5,482	0	2,957	45,000	779,268

a. Projected volumes.
b. Water made available to Metropolitan pursuant to the Storage and Interstate Release Agreement among the Secretary of the Interior, Metropolitan, the Southern Nevada Water Authority, and the Colorado River Commission of Nevada.

Replies to the Questionnaire

Much of the information requested in the questionnaire is included in Metropolitan's November 2010 *Municipal and Industrial Water Conservation Plan* transmitted to the Bureau of Reclamation's Southern California Area Office by letter dated November 30, 2010, (2010 M&I Plan) as updated with replies in this Enclosure.

Replies to Part 417 Consultation Questionnaire—Calendar Year 2012 Diversion Request

The following replies are presented in a format reproduced from the original questionnaire.

<table>
<tr><th>Part 417.3 Factors</th><th>2012 Diversion Request Reply</th></tr>
<tr><td>Area[2]</td><td>The present size of Metropolitan's service area is 5,179 square miles.

The following table lists service connections added in 2011:
<table>
<tr><th>Service Connection</th><th>Capacity, cfs</th><th>Who Served</th><th>Raw or Treated Water</th><th>Status</th></tr>
<tr><td>WB-28A</td><td>20</td><td>West Basin Municipal Water District</td><td>Treated</td><td>In service</td></tr>
<tr><td>EM-20</td><td>111*</td><td>Eastern Municipal Water District</td><td>Treated</td><td>In service</td></tr>
</table>
* Increase from pre-existing capacity of 100 cfs.</td></tr>
<tr><td>Climatic Conditions[3]</td><td>See Metropolitan's answer in the 2010 M&I Plan (page 5 section D).</td></tr>
<tr><td>Location[4]</td><td>There have been no significant changes in the location of District facilities.</td></tr>
<tr><td>Kinds of Customers[5]</td><td>Metropolitan continues to be a wholesaler of water to its 26 member agencies serving approximately 19 million persons. There has been no significant change in the types of customers served by Metropolitan's member agencies.</td></tr>
<tr><td>Water Use Practices[6]</td><td>Forecasts of water demand for Southern California will continue to have an upward growth trend. However, earlier estimates by Southern California's regional planning agencies of increases in population and housing within Metropolitan's service area have been tempered by the economic recession and the "burst" of the housing bubble. The inland areas of Riverside and San Bernardino counties, formerly the fastest growing counties within Southern California, have been hit especially hard by the drop-off in construction and relatively high rates of mortgage foreclosures. This is expected to dampen rates of growth in the short term.

Metropolitan encourages water use efficiency through research and development, financial incentives, programs to influence consumer behavior, education, support for new plumbing and compliance codes, and tiered pricing. Since the formal inception of its Conservation Program in 1990, Metropolitan and its member agencies have spent $336 million replacing water using devices with more water efficient alternatives in both the residential and nonresidential sectors. Aside from funding device retrofits, Metropolitan has developed and funded classes promoting water efficient landscaping practices for both homeowners and commercial landscapers. As of fiscal year 2010/11, cumulative regional water savings from weather-based irrigation controllers rebated by Metropolitan totaled about 23,000 acre-feet. Total conservation savings attributable to Metropolitan's conservation programs amounted to approximately 1.64 million acre-feet.</td></tr>
</table>

[2] Will MWD add or reduce the number of connections in the MWD's contract area for 2011, if so how many?
[3] List weather station data used, annual mean temperature, and annual mean rainfall as well as station name.
[4] Have there been any changes in the location MWD's facilities (e.g. storage, treatment, pipelines, etc…)?
[5] List changes in customer types (e.g. single family, multifamily, commercial, etc...).
[6] Identify projected changes to customer practices (e.g. irrigate turf, golf courses, fountains, etc...) and the expected impact on water use.

Replies to Part 417 Consultation Questionnaire—Calendar Year 2012 Diversion Request

Part 417.3 Factors	2012 Diversion Request Reply
Condition of Water Carriage & Distribution Facilities/System Efficiency[7]	The newly completed Inland Feeder began operations in September 2009. The Inland Feeder conveys water delivered to Metropolitan from the State Water Project at Devil Canyon Afterbay to Metropolitan's Diamond Valley Lake at flows up to 1,000 cfs. There have been no other significant changes to the condition of the delivery system. There are no significant issues with regard to the condition of the delivery system. For the amount of water sold in acre-feet in calendar year 2010, see reply contained herein to the factor, "Amount of Water Sold/Delivered to Customers".
Record of Water Orders[8]	On a weekly basis, by e-mail, Metropolitan staff provides Reclamation's water operations staff a report of planned diversions for the prospective week.
Record of Rejections of Water Orders[9]	Projected demands by member agencies for Metropolitan supplies are incorporated into Metropolitan's estimate of the volume of Colorado River water it can put to beneficial use in 2012. With the exception of groundwater replenishment deliveries and agricultural deliveries, which are subject to available supply, Metropolitan has not had cause to reject a member agency's order for non-payment or any other reason.

[7] What is the condition of the delivery system?
[8] Does MWD amend daily water orders with Reclamation more than three times a month?
[9] Have water orders from customers been rejected by MWD (e.g. for non-payment, etc...) that would impact MWD's water order?

Replies to Part 417 Consultation Questionnaire—Calendar Year 2012 Diversion Request

Part 417.3 Factors	2012 Diversion Request Reply
General Operating Practices/Policies[10]	Due to high snowpack in the northern Sierra Nevada and the Colorado River, Metropolitans' regional storage has increased significantly while demands have been reduced. In October 2010, Metropolitan's Board adopted a resolution declaring notice of a potential discontinuance of surplus water for agricultural purposes within its service area at any time from October 1, 2011 through December 31, 2012 (Attachment 1). In December 2010, Metropolitan's Board modified the Water Management Program to remove future call provisions and maintain the current Water Supply Allocation Plan (WSAP) Level 2 allocation and penalty rates, and allowed agencies to certify orders and deliveries without requiring specific agency agreements (Attachment 2). In April 2011, based on the current outlook of water supply, demand, and storage conditions, Metropolitan's Board decided to not implement the WSAP for 2011/12, as well as terminate implementation of the 2010/11 WSAP Level 2 allocation, and the seawater barrier allocation. Also removed was the 2011 Interim Agricultural Water Program reduction (Attachment 3). In May 2011, Metropolitan's Board authorized the General Manager to exercise his discretion to offer for sale discounted Replenishment Service Program water to achieve greater conjunctive use of imported and local supplies, encourage construction of local production facilities, and to provide dry-year supplies to meet water needs (Attachment 4). Metropolitan staff is engaged with the member agencies in a formal review of the WSAP that began in February 2011. Since the review process began, the member agency managers have participated in a series of thirteen workshops. The process is expected to conclude in autumn 2011.
Operating Efficiencies[11]	Per capita use is estimated at approximately 168 gallons per day (gpd)*. * Estimate based on 2010 preliminary data and MWD's 2010 Integrated Resources Plan Update.
Amount and Rate of Return Flow to the River[12]	Return flow of diverted water due to seepage from Gene Wash Dam and Copper Basin Dam amounts to approximately 2,880 acre-feet annually at an average flow of 4 to 5 cubic feet per second.
Municipal Water Requirements[13]	As a water wholesaler, Metropolitan does not distinguish between municipal and industrial uses. See total M&I deliveries immediately below.

[10] Has there been any change in operating practices? If so, attach the new policy.
[11] Gallons per Capita per Day (GPCD).
[12] Amount (cfs) and average rate (ft/sec) of return flow to the river.
[13] How much water is going to municipal uses and how much water is going to industrial uses, each in acre feet?

Replies to Part 417 Consultation Questionnaire—Calendar Year 2012 Diversion Request

<table>
<tr><th>Part 417.3 Factors</th><th>2012 Diversion Request Reply</th></tr>
<tr><td>Amount of Water Sold/Delivered to Customers[14]</td><td>Wholesale sales of Colorado River water imported by Metropolitan plus supplies received through State Water Project facilities during calendar year 2010 were as follows:
<table>
<tr><th>Deliveries</th><th>CY 2010 (AF)</th></tr>
<tr><td>M&I</td><td>1,499,879</td></tr>
<tr><td>Agriculture</td><td>26,636</td></tr>
<tr><td>Groundwater Replenishment</td><td>98,785</td></tr>
<tr><td>Storage Programs</td><td>16,860</td></tr>
<tr><td>Total</td><td>1,642,160</td></tr>
</table></td></tr>
<tr><td>Provisions of Users Water Delivery Contract[15]</td><td>No changes since the 2011 diversion request reply.</td></tr>
<tr><td>Water Rates[16]</td><td>The current schedule of Metropolitan's water rates and charges is located on our website. http://www.mwdh2o.com/mwdh2o/pages/finance/finance_03.html. The changes between calendar years is shown.</td></tr>
<tr><td>Water Conservation[17]</td><td>Metropolitan's previous fiscal year expenditures and current fiscal year budget for demand management programs are as follows:
<table>
<tr><th></th><th>($ millions)
FY 2010-1</th><th>FY 2011-12</th></tr>
<tr><td>Water Conservation</td><td>19.1</td><td>19.1</td></tr>
<tr><td>Water Recycling</td><td>26.2</td><td>30.4</td></tr>
<tr><td>Contaminated Groundwater Recovery</td><td>7.7</td><td>8.2</td></tr>
<tr><td>Public Outreach/Media Advertising</td><td>1.6</td><td>1.6</td></tr>
<tr><td>Total Budget</td><td>54.6</td><td>59.3</td></tr>
</table></td></tr>
<tr><td>Other Relevant Factors[18]</td><td>Metropolitan has the capability to divert and beneficially use 1.25 million acre-feet in calendar year 2012, however, the water budgets prescribed in the October 2003 Colorado River Water Delivery Agreement may result in less than that amount of water being available to Metropolitan. Metropolitan has transmitted a plan to Reclamation to create 200,000 acre-feet of Extraordinary Conservation ICS in 2012 for the Secretary of the Interior's approval.</td></tr>
</table>

Water Conservation Plan Implementation[19]

For a description of the most recent water conservation activities, see Metropolitan's Annual Progress Report to the California State Legislature dated February 2011 and entitled *Achievements in Conservation, Recycling and Groundwater Recharge*, which can be accessed at: http://www.mwdh2o.com/mwdh2o/pages/yourwater/SB60/sb60_main.html

[14] Amount of water delivered/sold to customers in acre feet.
[15] Have there been any changes in the water service contract?
[16] Have there been any changes in water rates? If so, submit the changed rates.
[17] How much money will be spent by MWD on water conservation for 2011?
[18] Optional, please identify any other relevant factor/factors and explain why it would impact MWD's water order.
[19] Water conservation activities/measures/practices the MWD implemented in 2010.

Replies to Part 417 Consultation Questionnaire—Calendar Year 2012 Diversion Request

In this past fiscal year, Metropolitan's Board approved four Local Resources Program (LRP) projects: Van Nuys Area Recycling Project (120 acre-feet per year [afy]), Elsinore Valley Municipal Water District Recycled Water Program (300 afy), Irvine Ranch Water District Wells 21 and 22 (6,400 afy) and Chino Desalater Phase III (10,600 afy).

This past fiscal year, California's Department of Water Resources activated Metropolitan's Proposition 50 grant for a pilot turf removal program.

In May 2011, Metropolitan's Board authorized a Water Conservation Plan for fiscal year 2011/12 and other associated expenditures and activities (Attachment 5).

Metropolitan sponsored and conducted educational outreach efforts and programs throughout Southern California during 2011. Topics included water supplies and delivery, conservation and issues related to the Sacramento-San Joaquin Delta. Online and social media included using Google search advertising focused on water use and the importance of conservation.

Metropolitan's bewaterwise.com® Web site continued to play a key role in educating the public, attracting nearly 400,000 unique visitors from July 1, 2010 through June 30, 2011. Metropolitan also posted a Spanish-language version of the site.

Other[20]

None.

[20] Other relevant materials to submit (e.g. new water conservation plan, transfers, water price sheet, etc...).

Enclosure 3

Attachments to Part 417 Consultation Questionnaire—Calendar Year 2012 Diversion Request

1. Staff letter to Metropolitan's Board of Directors for the October 12, 2010 meeting, Subject: "Adopt resolution to approve notice of potential discontinuance of interim agricultural service of surplus water from October 1, 2011 through December 31, 2012."

2. Staff letter to Metropolitan's Board of Directors for the December 14, 2010 meeting, Subject: "Approve amendment to 2010/11 Water Management Program with member agencies during 2010/11 allocation."

3. Staff letter to Metropolitan's Board of Directors for the April 12, 2011 meeting, Subject: "Determine implementation status of Water Supply Allocation Plan for 2011/12; terminate 2010/11 implementation of Water Supply Allocation Plan; and reaffirm Baseline Water Use Efficiency Condition."

4. Staff letter to Metropolitan's Board of Directors for the May 10, 2011 meeting, Subject: "Approve calendar year 2011 approach for purchases of water for local storage."

5. Staff letter to Metropolitan's Board of Directors for the May 10, 2011 meeting, Subject: "Authorize changes to Water Conservation Program for implementation in fiscal year 2011-12."