



● **Board of Directors**
Water Planning and Stewardship Committee

8/17/2010 Board Meeting

8-8

Subject

Approve adjustments to Metropolitan's Water Supply Allocation Plan and implement the allocation of seawater barrier supplies for the 2010/11 Allocation Year

Description

Background

Between July 2007 and February 2008, Metropolitan staff worked with the member agency managers and the Board to develop a Water Supply Allocation Plan (WSAP). The WSAP includes the specific formulas for calculating member agency supply allocations and the key implementation elements needed for administering an allocation. The WSAP formula allocates Metropolitan supplies over ten regional shortage levels. The WSAP was adopted at the February 12, 2008, board meeting. Staff was also directed to review the WSAP 12 months following implementation to ensure opportunity for Metropolitan staff and the member agencies to re-evaluate the plan and recommend appropriate changes to the Board.

In April 2009, the Board voted to implement the WSAP for the first time. The WSAP was implemented at a Level 2 allocation level, and was in effect for the period of July 1, 2009, through June 30, 2010. Since implementation of the 2009/10 WSAP began in July 2009, a number of practical issues relating to the plan were identified by staff and the member agencies for further consideration. In the interest of ensuring a comprehensive review process that could produce appropriate changes in time for the next WSAP year, the 12-month review process for the 2009/10 WSAP commenced in January 2010, six months into the WSAP year. Over the course of the six months, staff consulted with the member agency managers to discuss the WSAP and collected feedback on potential modifications.

This letter provides the Board with staff recommendations for modifications to the WSAP that would address the issues identified and discussed during the review process. This letter also provides the Board with the staff recommendation for allocation of seawater barrier demands. Any actions to modify the WSAP are intended to take effect for the 2010/11 allocation year.

Process

Metropolitan staff engaged with the member agencies in a formal review of the WSAP beginning in January 2010. The purpose of the review was to collaborate with the member agencies to identify potential modifications to the WSAP and to recommend changes, if any, for board consideration. Since the review process began in 2010, the member agency managers participated in a series of six workshops. The focus of these workshops was to facilitate in-depth discussion on WSAP-related issues and lessons learned since the WSAP was implemented in July 2009.

The main topics of discussion in the review process generally fell into the following categories:

- Groundwater basin management
- Local supply production
- Demand hardening
- Growth adjustments

To prepare for the review process, Metropolitan staff collected WSAP-related issues from several sources, including an online feedback form, WSAP appeal submittals, internal staff meetings, and interactions with member agency managers and staff. Since June 2009, Metropolitan staff has maintained an online WSAP feedback form on the member agency website. The WSAP also includes a comprehensive “Appeals Process” for managing requested changes in member agency data and subsequent supply allocations. To date, Metropolitan has received 14 appeal submittals for the 2009/10 allocation year, which revealed additional issues and topics for clarification and discussion. [Attachment 1](#) shows a listing of the meetings that were held as part of the formal WSAP review process.

Metropolitan staff compiled WSAP-related issues from these various sources for presentation and discussion at the WSAP review workshops. Recommendations on how to deal with these issues were subsequently developed in conjunction with the member agency managers for Board direction.

Recommended Modifications to the Water Supply Allocation Plan

Metropolitan staff consulted with the member agency managers and staff to develop these recommendations. They are intended to be effective in the 2010/11 allocation year.

1. Remove references to Gains and Losses of Local Supply – Retail demands in the WSAP are calculated using 2004/06 Base Period Local Supplies. However, WSAP allocations are determined by each member agency’s current Allocation Year Local Supplies. Under the WSAP, changes in Allocation Year Local Supplies are documented through communication with member agencies and verified through a formal local supply certification process at the end of each allocation year. Corrections to historical Base Period Local Supply data are made through the formal WSAP appeals process.

Staff recommends removing references in the WSAP to “gains and losses of local supplies” in order to better facilitate the accounting of historical base year and allocation year local supplies. This recommended change would not affect the WSAP formula or allocations.

2. Remove references to Regional Shortage Percentage – Each WSAP Regional Shortage Level currently has a defined “Regional Shortage Percentage.” This percentage is a factor within the WSAP formula and does not represent a shortage amount. However, the percentage figure has led to difficulty with public outreach and communication because it can be easily misinterpreted as an indicator of the depth of shortage or as a percentage of required cutbacks or reductions.

Staff recommends removing references to the “Regional Shortage Percentage” in the WSAP to reduce unintended confusion between calculation factors and shortage amounts. This recommended change would not affect the WSAP formula or allocations.

3. Include the Retail Impact Adjustment in Regional Shortage Level 1 and Level 2 – The purpose of the Retail Impact Adjustment in the WSAP is to help ensure that member agencies that are highly reliant upon Metropolitan do not experience disparate shortages at the retail level compared to other agencies that are less reliant on Metropolitan. It is prorated on a linear scale based on each member agency’s dependence on Metropolitan at the retail level. However, it is currently only applied when the WSAP Regional Shortage Level is 3 or greater. Extending the adjustment to Level 1 and Level 2 would provide additional allocation to agencies based on their retail-level needs as well as consistency in methodology across all shortage levels.

Staff recommends inclusion of the Retail Impact Adjustment for Regional Shortage Level 1 and Level 2. This recommended change would result in additional allocations to Metropolitan-dependent agencies under Level 1 and Level 2 regional shortages. Implementing this change would result in approximately

56,000 acre-feet of additional allocation for the upcoming 2010/11 WSAP Allocation Year. Based on the water supply and demand balance as of June 2010, staff does not anticipate that the proposed modification would affect the WSAP Regional Shortage Level. A detailed accounting showing the estimated impact to each member agency from including the Retail Impact Adjustment can be found in [Attachment 2](#).

4. Revise the Accounting for Extraordinary Supplies – In June 2010, the Board adopted principles to be considered in determining Extraordinary Supplies under the WSAP. Local supply production classified as Extraordinary Supply is accounted differently than “planned” or “ordinary” Allocation Year Local Supply. Under the current formula, Extraordinary Supplies are subject to a Base Period Local Supply threshold; this means that an agency must produce as much local supply as they did in the Base Period in order for an Extraordinary Supply to be counted as Extraordinary. Also, according to the current formula Extraordinary Supplies are only partially included in the WSAP allocation formula depending on the WSAP Level. This has the effect of overstating the agency’s demand for Metropolitan supplies and providing significantly more benefit to the member agency in terms of total water supply. However, Extraordinary Supplies are increasingly shared with the rest of the region on a sliding-scale as WSAP Levels increase.

During the 12-month review process, it was recognized that the Base Period Local Supply threshold provision and the sliding-scale sharing mechanism in the formula could have punitive outcomes. These impacts are particularly severe in deeper regional shortages and unintentionally create disincentives for member agencies to develop Extraordinary Supplies.

Staff recommends modifying the methodology for accounting of Extraordinary Supply in the WSAP formula. This would be accomplished by:

- Removing the Base Period Local Supply threshold provision,
- Removing the sliding-scale sharing mechanism from the formula, and
- Including the full amount of the Extraordinary Supply in the calculation of the Retail Impact Adjustment.

[Attachment 3](#) provides an example of how these changes would offer more of a benefit to agencies that procure Extraordinary Supplies. There would be no change in the sliding-scale sharing because the current formula does not apply a sliding scale until Level 3. The only impacts to the 2010/11 WSAP Allocation Year supply allocations under a Level 2 would come from the changes to the Base Period Local Supply threshold and the recalculation of the Retail Impact Adjustment. Quantifying the impact is not practicable because any quantification is dependent on knowing actual amounts of Extraordinary Supply that agencies would procure and the dependence on Metropolitan of the agency procuring the Extraordinary Supply.

5. Include a Minimum Per Capita Water Use Threshold – There is significant variation in per capita water use among the member agencies. Member agencies with lower per capita water use and higher levels of demand hardening are disproportionately affected by demand reductions under WSAP allocations. As absolute per capita water use decreases beyond certain thresholds, further reductions are more likely to come from indoor residential use as opposed to outdoor landscape use.

Staff recommends comparing member agency water use, on a gallon per capita per day (GPCD) basis, to the following minimum thresholds:

- 100 GPCD total use or
- 55 GPCD residential indoor use

Staff’s proposed minimum thresholds are based upon compliance guidelines established under Senate Bill X7-7 (Water Conservation Act of 2009).

Member agencies would receive additional Metropolitan allocation for an acre-foot equivalent of GPCD below the minimum threshold. Implementing this change would result in about 900 acre-feet of additional allocation for the upcoming 2010/11 WSAP Allocation Year. The estimated impact to each member agency from including a Minimum Per Capita Water Use Threshold can be found in [Attachment 4](#). [Attachment 4](#) also shows the total acre-feet of additional allocation that would result from this change at each of the WSAP Shortage Levels.

6. Exclude Seawater Barrier Supplies from the WSAP Formula – The WSAP formula currently includes sea water barrier deliveries as local supplies. However, unlike other local demands, seawater barrier deliveries cannot be cut during an allocation year because of obligations to protect groundwater basins, including blending requirements when recycled water is used. This creates a demand hardening effect where the other customers from member agencies that supply seawater barrier deliveries must curtail their demands even more to compensate during an allocation. For this reason, seawater barrier deliveries provide an important regional benefit but also have disparate impacts to individual member agencies and their customers.

During the 2004/06 WSAP Base Period, Metropolitan seawater barrier deliveries averaged approximately 25,000 acre-feet per year. Using the current WSAP formula an estimated 22,000 acre-feet would be allocated to seawater barrier demands in the 2010/11 WSAP Allocation Year. Removing seawater barrier demands from the allocation formula would reduce the 2010/11 WSAP allocation by a like amount. An additional and separate allocation of supplies to meet seawater barrier demands would be determined by the Board of Directors. For the purposes of setting the allocation of supplies for seawater barrier, staff will use estimates of seawater barrier demands provided by the member agencies. At the conclusion of a WSAP Allocation Year, staff would require those agencies that have seawater barrier obligations to certify the actual demands for seawater barrier that occurred in that year. [Attachment 5](#) shows the estimated impacts to each member agency from this proposal, as well as the total change in allocation at each WSAP Shortage Level.

Staff recommends excluding seawater barrier supplies from the 2004/06 Base Period and WSAP Allocation Year local supply calculations. This would allow the Board to determine allocations for seawater barrier demands separately from the WSAP. The current WSAP formula does not account for actual barrier requirements, or the changes in the use of recycled water to meet those requirements that have occurred since the Base Period. With the proposed revision, the Board would be able to consider actual barrier requirements in the Allocation Year, as well as the availability of recycled supplies for blending given current operational and regulatory constraints. Staff proposes that allocations to seawater barrier demands would be no deeper than the WSAP Wholesale Minimum Percentage implemented at that time.

Other Identified Items from the 12-Month Review

In addition to the WSAP modifications recommended in the preceding section, several other items of concern had been identified and discussed by staff and the member agencies during the WSAP 12-Month Review process. For some of these items, it was determined that they would be appropriately addressed on a case-by-case basis through the formal WSAP appeals process. For the remaining items, it was determined through discussions with the member agencies that they did not necessitate changes in the WSAP during this review. The items are listed below:

Items to be addressed by appeal

- Losses of supply in basins used as distribution systems
- Exclude physically isolated areas from the WSAP formula
- Treatment of water quality and physical solution obligations in the WSAP formula

Other Identified Items

- Conversion of replenishment demands to firm demands
- Increase the Conserving Rate Structure Credit
- Modify how the Base Period Local Supplies are calculated
- Capacity charges should not be affected by the WSAP
- Fire suppression/maintenance water should be excluded from the WSAP
- Adjudications that require replenishment supplies
- Remove the Growth Adjustment from the WSAP formula
- WSAP Base Period selection

Of particular note is the issue of the Growth Adjustment in the WSAP formula. No change in the existing Growth Adjustment is recommended for the 2010/11 WSAP through this review process. However, staff and the member agencies are in agreement that the methodology for accounting for growth in the WSAP formula warrants continued review and discussion in the future.

Recommended Allocation of Seawater Barrier Supplies

The adjustment proposed in this letter to exclude seawater barrier supplies from the WSAP formula states that an “additional and separate allocation of supplies to meet seawater barrier demands will be determined by the Board of Directors”. Separating the seawater barrier allocation from the WSAP allocation allows the Board to consider actual barrier requirements in the Allocation Year. The current WSAP formula does not account for actual barrier requirements, or the changes in the use of recycled water to meet those requirements that have occurred since the Base Period.

During the 2004/06 Base Period, Seawater Barrier purchases from Metropolitan averaged just over 25,000 acre-feet per year. Under the existing WSAP formula about 22,000 acre-feet of supplies would be allocated to meet seawater barrier demands at the current Level 2 implementation. Based on initial estimates provided by the member agencies, the total amount of Metropolitan supplies needed to meet barrier demands in the current Allocation Year is 16,000 acre-feet. The following table shows the total amount of seawater barrier demands in the Allocation Year by member agency, as well as the anticipated local recycled supplies that will be available to meet barrier demands and the resulting demands on Metropolitan.

Member Agency	Total Barrier Demand	Local Barrier Supply	Barrier Demand on Metropolitan
Long Beach	6,000	2,700	3,300
MWDOC	38,000	37,700	300
West Basin	24,800	12,400	12,400
Total	68,800	52,800	16,000

The proposal in this letter to exclude seawater barrier supplies from the WSAP formula states that the allocations to seawater barrier demands should be no deeper than the WSAP Wholesale Minimum Percentage implemented at that time. Under the current Level 2 WSAP implementation the Wholesale Minimum Percentage is 85 percent. The following table shows the amount of seawater barrier supplies that would be provided under various levels of allocation, with the minimum allocation equal to 85 percent of seawater barrier demands on Metropolitan.

Member Agency	100%	95%	90%	85%
Long Beach	3,300	3,135	2,970	2,805
MWDOC	300	285	270	255
West Basin	12,400	11,780	11,160	10,540
Total	16,000	15,200	14,400	13,600

Some key considerations in determining the allocation of seawater barrier demands are:

- the importance of the seawater barriers in protecting groundwater supplies for the region
- the demand hardening impacts associated with cutting seawater barrier supplies

In excluding seawater barrier deliveries from the WSAP allocation, Metropolitan would effectively isolate the actual demands for seawater barrier in the allocation year. Any reductions in seawater barrier deliveries would translate into real cuts to seawater barrier deliveries, or would shift supplies allocated under the WSAP away from potable customers to provide for the seawater barrier.

Given the key considerations outlined above, staff recommends that Metropolitan provide sufficient supplies to meet 100 percent of seawater barrier demands for the Allocation Year. Approving this action would reduce the WSAP allocation by just over 22,000 acre-feet, and add an additional 16,000 acre-feet of seawater barrier allocation; the net change would be a 6,000-acre-foot reduction in supplies allocated by Metropolitan. The allocation figures shown above are based on preliminary estimates provided by the member agencies; final allocations will be based on actual certified barrier demands and local supplies.

Next Steps

Changes to the WSAP as a result of board action this month are intended to be in effect for the 2010/11 WSAP Allocation Year. Metropolitan staff has communicated the process timeline to the member agencies through the 12-month review workshops and through meetings with the member agency managers.

For reference, [Attachment 6](#) provides a comparison of the estimated 2010/11 WSAP allocations under the current allocation formula and with all of the adjustments proposed in this letter. This comparison quantifies the cumulative impact of all of the proposed changes for each member agency.

Policy

By Minute Item 47393, dated February 12, 2008, the Board adopted the Water Supply Allocation Plan.

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA because it involves continuing administrative activities, such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, where it can be seen with certainty that there is no possibility that the proposed action in question may have a significant effect on the environment, the proposed action is not subject to CEQA (Section 15061(b)(3) of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed action is not subject to CEQA pursuant to Sections 15378(b)(2) and 15061(b)(3) of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. approve the proposed adjustments to Metropolitan's Water Supply Allocation Plan; and
- b. approve the proposed allocation of seawater barrier supplies.

Fiscal Impact: None

Business Analysis: Approving the proposed adjustments would address the major issues identified for refinement in the 12-month review process. Specifically the proposed adjustments would help clarify data requirements and accounting, alleviate potential confusion in public messaging regarding the size of required reductions, provide consistency in methodology across all shortage levels, lessen disincentives for member agencies to develop Extraordinary Supplies, protect agencies with lower per capita water use from

disproportionately high levels of demand hardening, and allow the Board to determine appropriate allocations for seawater barrier demands separately from the WSAP.

Option #2

Do not approve the proposed adjustments to Metropolitan's Water Supply Allocation Plan, and do not approve the proposed allocation of seawater barrier supplies.

Fiscal Impact: None

Business Analysis: Not approving the proposed adjustments maintains the existing Water Supply Allocation Plan formula

Staff Recommendation

Option #1


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8/2/2010
Date


Jeffrey Kightlinger
General Manager

8/3/2010
Date

Attachment 1 – WSAP 12-Month Review Process Meeting Summary

Attachment 2 – Proposal to Include the Retail Impact Adjustment in Regional Shortage Level 1 and Level 2

Attachment 3 – Proposal to Revise the Extraordinary Supply Methodology

Attachment 4 – Proposal to Include a Minimum Per Capita Water Use Threshold

Attachment 5 – Proposal to Exclude Seawater Barrier Supplies from the WSAP Formula

Attachment 6 – Comparison of 2010/11 WSAP Allocations with Proposed Adjustments

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