

Excerpts From Metropolitan's
Comments to DWR on Draft Bulletin 160-93

1. State Should Act Quickly

Immediately Begin Implementation of Level I Options

The water balance included in *Draft Bulletin 160-93, California Water Plan Update* (Draft Bulletin) shows that significant shortages are projected, even after the development of all Level I options (defined as those options that have undergone extensive investigation and environmental analysis). While Metropolitan believes the shortages shown are understated, as will be discussed in a later comment, the 1990-level drought shortage and projected chronic shortages in year 2020 highlight the need for the State to immediately begin carrying out plans to develop Level I options. The State needs to expedite the implementation of those Level I programs over which it has authority, and needs to support and facilitate the implementation by local agencies of local water management programs. The State's assistance to local agencies should include help in the development of water management programs, cooperation and support for completion of water supply facilities and water transfers, and the streamlining of regulatory processes related to these efforts. It is important in the near-term, particularly if Delta operations become more constrained, for the State to facilitate short-term measures, including water transfers, while other options are being developed.

Develop Plan to Eliminate Remaining Shortages

Unlike past California Water Plan updates, the Draft Bulletin does not present a plan for eliminating projected shortages. It is stated in the document that, due to the uncertainty of additional environmental water needs, "a specific plan for implementing Level II options for meeting the remaining water supply requirements cannot be put forth in this update of the California Water Plan." (Level II options are defined as those which require more extensive investigation and alternative analyses.) The reasoning cited is that this uncertainty will affect the identification and selection of Level II options needed. While it is indeed true that additional environmental needs, and therefore remaining shortages, are uncertain, separate plans can be developed to make up shortage levels throughout the range of shortages identified in the Draft Bulletin. It is likely that at least a few Level II options would be common to each plan throughout the shortage range. More extensive analysis of these common options should begin immediately, since delaying

such planning will make it increasingly difficult to avoid the shortages projected.

2. Rationing Should Not Be Considered As Level I Option

The Draft Bulletin includes in its water balance statewide urban water supply rationing of ten percent, or 1 MAF, in addition to water conservation best management practices (BMPs). Rationing is certainly one option water managers may utilize to deal with water shortages in their service areas, and rationing should be considered, along with all other viable options. Some level of rationing may be determined to be economically justifiable for a particular region; however, such a determination must be made in the context of comparing the economic results of rationing to the costs of other available options that are present at the time of shortage. Urban rationing should not, however, be relied upon as a Level I option for the reasons discussed below.

From a SWP perspective, the only acceptable shortages provided in the Contract are the initial shortages for agricultural uses. In this context, shortages beyond that level should be considered only on an interim basis while efforts to increase SWP supplies to the minimum project yield of 4.23 MAF are being implemented.

Need for Level II Options Understated

In the Draft Bulletin, the water balance first shows projected demands, existing supplies, and the resulting shortages. It then shows supplies from Level I options and the shortages remaining after Level I. Supplies from Level II options are not quantified in the water balance; the total need for Level II supplies is determined to be the shortage remaining after Level I. Because urban rationing is included as a Level I option, it reduces the shortage shown to be remaining after Level I, and therefore, understates the need for Level II supplies.

While the discussion in the Draft Bulletin includes recognition that decisions about levels of acceptable rationing will be made locally, its inclusion in the water balance at a level assuming ten percent statewide urban rationing is misleading. A determination by local water managers that, in addition to BMPs, this level of rationing is economically harmful and would result in implementation of lower levels of urban rationing, increased shortages remaining after Level I programs, and an increased need for Level II supplies. Inclusion of urban rationing as a Level II option instead of a Level I option would correct this problem.

Lack of Analytical Justification Inconsistent With
Level I Definition

Use of urban rationing without the support of extensive economic and environmental analyses is not consistent with the definition for Level I options. Level I options are defined as those "that have undergone extensive investigation and environmental analyses." There is little evidence in the Draft Bulletin, or elsewhere, that the economic and environmental impacts of urban rationing have been thoroughly investigated.

No Basis for Conclusion That Level I Rationing Is
"Manageable"

The degree of urban rationing assumed in the Draft Bulletin to be manageable and cause no significant economic impact is not supported. The water balance relies on an increase in total urban demand reduction from 15 percent in 1990 (representative of the actual 1990-1991 experience) to 20 percent by the year 2020, with 10 percent of the total reduction in year 2020 resulting from implementation of BMPs. Metropolitan's analyses show that the economic recession in 1990-1991 resulted in significantly reduced commercial and industrial water use. This recession-induced demand reduction is an important factor that reduced the economic costs of the 1990-1991 drought. It cannot be assumed that droughts and economic recessions will occur simultaneously in the future.

Water Managers Need to Maintain Flexibility

Sound water management includes maintaining at least some degree of supply flexibility in order to cope with shortages without sustaining significant economic harm. Relying on significant levels of rationing as a first level drought response option as is done in the Draft Bulletin, particularly without having performed risk and economic trade-off analyses, would severely restrict this flexibility. This would limit the options for local water managers to cope with greater than anticipated shortages resulting from unforeseen conditions or drought more severe than that considered in the Draft Bulletin.

**3. Water Transfers Should Be Included As Supply Option
For SWP**

Although water transfers have been used successfully a number of times to augment SWP yield, water transfers are not specifically included in the Draft Bulletin as a Level I or Level II option to increase SWP yield. It is stated in Chapter 3 that "To augment firm yield, additions to the SWP are proposed and include: ... long-term water purchases." However, water transfers are not included in Chapter 11 in either the discussion

on SWP water supply augmentation or the tables and figures showing SWP supply capability.

The analysis of transfer capability included in the Draft Bulletin indicates that there is capability to transfer water from north to south of the Delta. Further, transfers originating south of the Delta could provide additional transfer opportunities. While the Draft Bulletin includes water transfers as both a Level I and Level II option, the quantities shown are essentially conveyance capacity which could potentially be available to the SWP or, separately, to water agencies. Given the SWP shortages shown in the Draft Bulletin, at least some level of water transfers specifically for the SWP should be included in the options for increasing SWP supplies.

4. **Statewide Water Balance Masks Regional Water Supply Imbalances**

As presented in Volume 1 of the Draft Bulletin, the severity of regional water supply problems is masked. While a given level of shortage may not appear particularly significant on a statewide basis, it becomes extremely significant if that shortage is concentrated in just a few regions. For example, demands in the South Coast Region are 11 percent of the statewide drought-year demand in year 2020, while the corresponding shortage with existing facilities is approximately 48 percent of the statewide shortage. This is particularly significant since, with only 11 percent of the statewide demand, the South Coast Region will be supporting approximately 50 percent of the State's population and producing 50 percent of the State's valuation of goods and services.

Regional Shortages Understated

The water supply balance in Volume 1 of the Draft Bulletin includes an aggregation of regional supplies and demands to statewide quantities. This water balance also includes statewide estimates of additional environmental need and urban rationing. The breakdown of supplies and demands by region in Volume 2, however, does not include a regional breakdown of either an additional environmental need or urban rationing. Additional water for the environment directly increases demand and its inclusion would result in larger regional shortages than shown in the Draft Bulletin. While it is understood that it would be difficult to determine how this environmental need might be allocated to each region, the regional shortages are understated without it. Readers of the Draft Bulletin that focus only on their regional water balances could be easily misled. The final Bulletin needs to discuss in Volume 2 the potential effect of additional environmental needs on regional shortages. While it is stated in the summary section of Volume 2 that additional environmental needs could further reduce

reliability in the South Coast Region, this statement is not also included in the section on the South Coast Region. It should be clearly stated in the summary section and the appropriate regional sections that additional environmental needs are not included and will result in greater regional shortages. Footnotes containing this statement should also be included in the appropriate regional water balance tables.

5. Accomplishments of Supply Augmentation Options May Be Overstated

The supply accomplishments shown in the Draft Bulletin for Level I and Level II supply augmentation options were taken from previous studies and were determined based on operational and regulatory constraints in effect at the time those studies were completed. Constraints which were not anticipated in those studies but have been imposed, along with constraints which may yet be imposed, are likely to reduce the supply benefits shown for some options. In addition, more stringent drinking water quality standards may eliminate certain options from consideration if increased treatment costs which might then be necessary render such options economically infeasible. These increasing operational and regulatory constraints and more stringent drinking water quality standards may not only reduce existing supplies, but may also reduce the yield of future supply options, potentially making some options infeasible. As a result, the shortages shown after completion of Level I options may be understated, necessitating a greater need for Level II programs. While a footnote addressing this point has been included in the water balance tables, the final Bulletin also needs to include this footnote in the tables of Level I and Level II options. The final Bulletin also needs to include a discussion of this in Chapter 11.

6. Replenishment Demand Is Needed To Offset Increased Groundwater Pumping During Droughts

Table 1-1 shows an increase in groundwater use in year 2020 of 4.6 MAF between average and drought years, but no corresponding increase in groundwater overdraft. It is implied that this magnitude of drought-year groundwater pumping would be available on an on-going basis in addition to the overdraft shown to be occurring in average years. In order for this large drought-year pumping to continue without an increased overdraft, a demand for groundwater replenishment needs to be included in the determination of demands in non-drought years. Without groundwater replenishment, the assumption that this magnitude of drought-year pumping, in addition to continuing average-year overdrafts, can continue indefinitely may be erroneous. It should be noted that any natural increase in replenishment occurring because of increased overdraft reduces the availability of surface water which would otherwise have been available for use.

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