



**MWD**  
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

AUG 22 1995

*Karen E. Deff*  
EXECUTIVE SECRETARY

August 8, 1995

**To:** Board of Directors (Water Planning and Resources Committee--Action)  
**From:** General Manager  
**Subject:** Seasonal Storage Service Program Administrative Procedures

**RECOMMENDATION:**

It is recommended that your Board:

1. Adopt the Recommended Administrative Procedure changes in the Seasonal Storage Service Program as described in this Letter for application during future availability periods.
2. Affirm the General Manager's determination to allow for an exception to Administrative Code Section 4507(b) and finalize the Seasonal Storage Service certified credits as currently stated without any adjustments for the period July 1, 1990 through June 30, 1994.
3. Affirm the General Manager's determination to accept SSS certifications for the period covering October 1, 1994 through March 31, 1995, which are consistent with past practices for individual member agencies.
4. Waive the provisions in Section 4507(g) of the Administrative Code for FY 1994-95 SSS certifications if submitted by September 30, 1995.

John R. Wodraska  
General Manager

Submitted by:

*Mike Young*  
Edward G. Means III  
Chief of Operations

Concur:

*John R. Wodraska*  
John R. Wodraska  
General Manager

**EXECUTIVE SUMMARY:**

As part of the development of the rate structure, staff was directed, in December 1993, to evaluate the Seasonal Storage Service (SSS) Program's performance and pricing. In order to gather base information, Metropolitan conducted the initial steps of an assessment of the SSS Program. While meeting with the member agencies to review past certifications and results, Metropolitan and member agency staff found reconciliation differences, as well as areas in which there were differences in understanding as to how the program was supposed to have worked.

In a March 1995 letter to your Board (Attachment 1), the General Manager established a Joint Program Advisory Committee (JPAC) comprised of member agency and Metropolitan staff to address the administrative issues surrounding the SSS Program. The JPAC has reached consensus on most of the administrative issues and procedural questions as summarized in this letter. These consensus recommendations are being brought to you for your approval. Both member agency and Metropolitan staff believe that the adoption of the jointly developed recommendations will provide a better understanding of the administrative procedures and provide more consistent accounting of the SSS Program and avoid the differences in interpretation found in the assessment. Table 1 outlines the general recommendations made by the JPAC for administration of the SSS Program for the interim while the IRP Workgroup completes its review of the water management programs including the SSS Program. Table 2 outlines requests forwarded to the IRP Workgroup for further analysis.

**DETAILED REPORT:**

The Seasonal Storage Service (SSS) Program was first implemented in fiscal year (FY) 1989-90. This was in response to the request by your Board to develop a permanent version of Metropolitan's temporary in-lieu program, first implemented in 1978 as a drought-related pilot storage program.

**Current Seasonal Storage Service Program Overview**

The three principal goals of SSS are to:

- 1) Achieve greater conjunctive use of imported and local supplies.
- 2) Encourage construction of additional local production facilities.
- 3) Reduce member agencies' dependence on Metropolitan's deliveries during the summer months.

Regional benefits include enhancing Metropolitan's ability to capture excess surface flows from both the State Water Project and the Colorado River, and improving the region's capability to produce more groundwater and to draft local surface reservoirs during sustained droughts and emergencies.

Member agencies are encouraged to take seasonal water through a discounted rate offered by Metropolitan. This economic incentive allows local agencies to invest in new water production, storage, and treatment facilities. These facilities are needed to augment local agencies' capability to produce local water, as well as store imported water purchased from Metropolitan during periods of abundance. The FY 1995-96 SSS rate is \$229 per acre-foot (AF) for untreated water and \$286 per AF for treated water. (See Table 3 for historic data).

To receive the lower rates, agencies must certify to Metropolitan the amounts of imported water that they have stored in local reservoirs and groundwater basins by direct and in-lieu means. Certification forms (Figures 1 and 2) are provided to agencies to assist in their calculations and standardize the certifications completed by all agencies.

Since implementation of the SSS Program in 1989, about 2.1 million acre-feet (MAF) of water has been sold as SSS, representing about 18 percent of total District water sales. This makes the SSS Program the most utilized storage program that Metropolitan has. Table 4 lists the agencies which have participated in the SSS Program, the total amount of SSS water taken, and percentage of SSS taken in relation to total seasonal sales per agency. Since inception, 24 member agencies have participated in the SSS Program.

#### Delivery and Certification Methodology

SSS can be delivered by direct or in-lieu means to groundwater basins or reservoirs. This storage can be for long-term or short-term periods. The following section describes the measurement of the various types of SSS.

#### **Direct Groundwater Deliveries**

Direct deliveries to groundwater basins can be accomplished by spreading or injection. Spreading deliveries through meters that are used exclusively at a groundwater replenishment delivery point are simply the measurement of water through the spreading connection. Injection deliveries are simply the amount of water injected into the aquifer less the amount of water pumped. These deliveries are considered to be SSS if delivered during the period of availability and charged at the SSS rate. Water delivered through these connections at other times is charged at the noninterruptible rate. Metropolitan water sold for the purpose of injection at seawater intrusion barriers is not a part of the SSS Program.

#### **In-Lieu Groundwater Deliveries**

An agency can qualify for in-lieu SSS by producing a higher percentage of its demand from local sources in the summer than it did in the winter. The water purchased from Metropolitan in the winter, because of this operation, may be purchased at the SSS rate. When measuring storage by in-lieu means, a baseline pattern is established which defines how an agency would normally have used its local water supply without Metropolitan's SSS Program. Under baseline conditions, agencies are presumed to serve a consistent proportion of monthly demands from local sources throughout the year. In-lieu deliveries to storage are measured as the presumed local production minus actual local production during the period in which SSS deliveries are available. If an agency imports more Metropolitan deliveries in the winter than it needs to offset the extra summer pumping, local water is left in storage for long-term use. The additional Metropolitan deliveries receive an SSS incentive.

#### **Direct Reservoir Deliveries**

An agency can qualify for SSS by shifting reservoir operations to deliver Metropolitan water directly into its reservoir during the SSS period. Reservoir outflow is reduced in the winter in order to gain storage for summer use. Direct SSS deliveries into reservoirs are generally calculated as the net gain in storage limited by the delivery of Metropolitan water directly into the reservoir for the month being certified.

**In-Lieu Reservoir Deliveries**

An agency can qualify for SSS by receiving Metropolitan water directly into its distribution system in excess of its minimum amount of imported water required during the period of availability. Excess MWD water is used to reduce local supply outflow and conserve storage acquired from local sources, i.e., runoff for summer use. In-lieu deliveries to reservoirs are measured by using a baseline of 50% of the local water withdrawn in the summer limited by excess outflow capacity and excess MWD water used to reduce outflow and conserve storage.

Seasonal Storage Service Preliminary Assessment

During the development of the rate structure, staff was directed by your Board in the December 14, 1993 letter "Financial Structure Study Recommendations of Rate Structure and Additional Revenue Sources" to evaluate SSS pricing. In order to gather base information, beginning in July, 1994, Metropolitan conducted the initial steps of an assessment of the Seasonal Storage Service (SSS) Program for FY 1991-92, 1992-93, and 1993-94 with the participating member agencies.

During the preliminary SSS assessment, a questionnaire was sent to Metropolitan's member agencies requesting information on how seasonal storage service has affected their operations and their future operational plans. In summary, 54 wells have been rehabilitated, 58 new wells have been drilled, and 15 contaminated wells are being treated. These operational changes have maintained or added about 650 cubic-feet per second (cfs) of capacity at a cost of approximately \$100 million. By way of comparison, a constant flow at this rate would equal about 470,000 AF per year. A new MWD treatment plant to provide 650 cfs of flow would cost about \$280 million. Additionally, since the inception of SSS, member public agencies have spent about \$8 million on the development of additional new facilities other than wells.

SSS is meeting its stated goals while benefiting the region. Metropolitan has been able to achieve greater conjunctive use of imported and local supplies by delivering SSS when supplies are available. Thus, Metropolitan has been able to influence demands on imported water and local supplies. This conjunctive use has benefited the region by allowing Metropolitan to divert additional Colorado River and State Water Project supplies when supplies became available. In addition, the ability of the program to shift demands from summer to winter has forestalled the need for additional treatment and delivery facilities. During the three years reviewed, approximately \$145 million in SSS credits were given and 1.3 MAF of water was certified. Total sales for that time period were 5.7 MAF.

However, while meeting with the member agencies to review past certifications and results, Metropolitan and member agency staff found reconciliation differences, as well as areas in which there were differences in understanding as to how the program was supposed to have worked. It should be noted, however, that the great majority of credits given are not affected by these differences.

The differences in understanding involve a few basic questions which led to the creation of a Joint Program Advisory Committee (JPAC), involving member agency and Metropolitan staff, to focus on the SSS questions and recommend answers. All of the staffs believe that the Program will be significantly improved by resolution of these matters.

Areas of Clarification

The differences in understanding can be broken into three areas of clarification: reconciliation differences, Summer SSS, and carryover differences. Reconciliation differences

include when an agency did not update production or MWD delivery data for previous months certifications, arithmetic errors, and accounting for another agency's storage. With Summer SSS differences, certifications were not completed according to the March 30, 1993 Board Letter entitled "Continuance of Seasonal Storage Service". With carryover differences, an example would be when an agency which stored water one year and received SSS credits, counted it again as additional water stored the following year, and other years thereafter. This resulted in an increase in credits given to this agency. The total volume of water involved in the areas of clarification is approximately 150,000 AF. This accounts for about 12% of SSS sales or about 3% of total sales. The related revenue amount is about \$18 million in incentives given. Listed below are the areas requiring clarification, volume of water related with each, and associated revenue amount in incentives given related to each.

<u>Area of Clarification</u>	<u>Acre-Feet</u>	<u>Dollars (in millions)</u>
Reconciliation Differences	69,000	\$8.3
Summer SSS	68,000	\$8.2
Carryover Storage	13,000	\$1.6

Based on honest differences in understanding, passage of time, and local investments undertaken in the interim, it is not in Metropolitan's long-term interests to pursue retroactive changes in billings and certifications.

Section 4507 (b) of Metropolitan's Administrative Code states:

In the event a mistake is discovered in a District water sales record, the General Manager shall initiate appropriate corrective action, except that no mistake made more than five years prior to its discovery shall be corrected.

Because of the actual misunderstandings in policy, complexity of the SSS Program, and the need to protect local investments, I recommend that the Board affirm the determination to finalize the SSS certified credits as currently stated without allowing for any retroactive adjustments to SSS certifications by both Metropolitan and the member agencies for certifications covering the period July 1, 1990 through June 30, 1994. To ensure fairness among members, this determination should apply to all areas of differences. Additionally, for issues that are consistent with past practices for individual member agencies, I recommend that the Board affirm the determination that SSS certifications for the period covering October 1, 1994 through March, 31, 1995 be accepted consistent with the individual agency's past practice.

Also, due to confusion caused by the SSS assessment, for FY 1994-95, some member agencies have submitted their SSS certifications late or not submitted their SSS certifications for the entire period. Section 4507 (g) of Metropolitan's Administrative Code states:

Any certification received later than four months following the beginning of any month in which a credit for water used in interim agricultural water service or seasonal storage service is claimed will be subject to a \$2,500 late charge if the credit claimed exceeds \$2,500, and will not be accepted if the credit claimed is \$2,500 or less. No certification received after seven months following the beginning of any month in which such a credit is claimed will be accepted.

I recommend that Section 4507 (g) be waived for those SSS certifications covering FY 1994-95 if received by September 30, 1995.

## Resolution of Issues

The initial meeting of the JPAC was held on March 24, 1995 and a schedule was approved for completing work. A third party facilitator has been employed to help the JPAC reach consensus on recommendations in a timely manner. For purposes of JPAC discussions, consensus is defined as "Agreement in general opinion, but not necessarily unanimity". The next section describes the JPAC's recommended changes.

## Recommended Changes

### **Goals**

In order to facilitate reaching consensus on the administrative matters, it was agreed by the JPAC that the goals of the SSS Program should be reaffirmed. As a result, the JPAC slightly modified and then reaffirmed the goals to the following for consideration by your Board:

1. Achieve greater conjunctive use of imported and local supplies.
2. Encourage construction of additional local production facilities.
3. Reduce member agencies' dependence on deliveries from Metropolitan during the summer months and periods of shortage.

The only recommended change made is to add to Goal #3 "and periods of shortage" to acknowledge the long-term storage component of the program.

### **Definitions**

A new seasonal shift definition and long-term storage definition were derived to be recommended to your Board for use in the SSS Program. Listed below are the current definitions per the 1988-89 User Handbook for Seasonal Storage Service and recommended definitions.

#### **Seasonal Shift Storage**

Current Definition - Commonly referred to as short-term SSS but not formally defined. The JPAC agreed that a better name for this water is "Seasonal Shift Storage".

Recommended Definition - Additional summer local production offset by equivalent MWD winter delivery within a 12-month period.

Practical Effect - Acknowledges that there are two categories of water delivered for storage purposes. This definition recognizes that agencies which operate under the SSS Program by shifting imported demand use the same amount of MWD water over a 12 month period absent the SSS Program.

#### **Long-Term Storage**

Current Definition - That water which an agency leaves in storage for a duration extending past the end of the fiscal year (June 30) through avoided production during a period of availability (normally October 1 - April 30).

Recommended Definition - Water delivered by MWD to a member agency, for storage, by direct or in-lieu methods, beyond the 12-month SSS Program period.

Practical Effect - This water is characterized as that water which remains in storage and is not being used to offset additional local production.

### **Operating and Accounting Improvements**

Listed below are the current practices and the JPAC's recommended improvements to the operating and accounting procedures.

**Shutdowns**

Current Procedure - Adjustments to SSS certifications are made on a case-by-case basis.

Recommended Procedure - SSS certifications will be adjusted for the reduction of credits that are accrued due to shutdowns that are greater than seven days. No adjustment will be made for shutdowns seven days or less. MWD will continue to notice long term (over seven days) shutdowns at least one year in advance and produce a shutdown schedule in September for shutdowns less than seven days. SSS certifications will be adjusted for a member agency which provides a service to MWD by serving another member agency in-lieu of MWD deliveries during a shutdown even if the shutdown is seven days or less.

Practical Effect - Eliminates cumbersome bookkeeping adjustments to account for short-term shutdowns. Acknowledges that an agency should have a seven day supply of water in case of an interruption in Metropolitan deliveries. May reduce the amount of SSS credit to some agencies.

**Uncontrolled Runoff** - Local surface water that is diverted, treated, and served by an agency as it occurs without any intervening storage.

Current Procedure - Uncontrolled runoff receives direct, one-for-one credits as a separate line item in the SSS Program. Additionally, it is included as demand but not as local production.

Recommended Procedure - Uncontrolled runoff will not receive direct, one-for-one credits as a separate line item in the SSS Program. Uncontrolled runoff will be included as local production and demand on the in-lieu certification form. The JPAC found that uncontrolled runoff does not fit into the goals of the SSS Program. However, in making this recommendation, the JPAC agreed that uncontrolled runoff is a local resource that should not be wasted. Therefore, the JPAC recommends that the IRP Workgroup consider a LPP style program for uncontrolled runoff.

Practical Effect - By including uncontrolled runoff in local production and demand, actual agency operations with respect to shifting and local water use are reflected. Agencies that have been receiving this credit will no longer realize this benefit. May make some supplies less economical to utilize, however, the JPAC acknowledges the value of this resource.

**Reclaimed Water**

Current Procedure - Reclaimed water is not addressed in the current SSS Handbook. Agencies account for this water differently.

Recommended Procedure - Reclaimed water, whether or not receiving a LPP credit, will be excluded from the SSS certification form since it is inconsistent with the storage goals of the SSS Program. The exception is a reclaimed water system that stores imported water directly into a reclaimed water reservoir during the SSS period. Reclaimed water in this case will be included as local production and total demand on the SSS certification form.

Practical Effect - Confirms that reclaimed water is a separate system from potable water. Acknowledges that reclaimed water, although reducing a demand from Metropolitan, should not receive a credit for storage of Metropolitan water unless it actually contributes to storage.

**Mandated Groundwater Recovery Without Metropolitan Incentives**

Current Procedure - Mandated groundwater recovery projects not receiving Metropolitan incentives are not addressed in the current SSS Handbook. Agencies

account for this water differently.

Recommended Procedure - Water produced through mandated groundwater recovery projects will be included as local production and demand in the SSS certification form.

Practical Effect - Actual agency operations with respect to groundwater production and demand are reflected. In most cases, SSS incentives will decrease for these agencies since most groundwater recovery projects are baseloaded.

#### **Groundwater Receiving GRP Incentive**

Current Procedure - Stipulated by the GRP contract. Existing GRP contracts exclude GRP production as part of local water produced for purposes of SSS certification.

Recommended Procedure - Water produced through the Groundwater Recovery Program which is already under contract, will follow the provisions of the contract. Future GRP contracts will state that water produced through the GRP program is to be included as local production in the SSS Program. Additionally, the JPAC group recommends that the IRP Workgroup look at the total GRP incentive and make any adjustments necessary for the future.

Practical Effect - Actual agency operations with respect to groundwater production and demand are reflected. In most cases, SSS incentives will decrease for these agencies since most groundwater recovery projects are baseloaded.

#### **Carryover Storage**

Current Procedure - Disagreement over past interpretation.

Recommended Procedure - Water that is placed in storage and given SSS credit one year, and carried over in storage a second year, will not be counted as part of local supply. If carryover storage is counted as local supply, the baseline ratio increases, increasing incentives given during the second year, or again, any year thereafter. This procedural recommendation is mathematically reflected in Line 2 (A2) of the in-lieu groundwater replenishment form. Water, defined as carryover storage, will not be included on line A2 of the in-lieu certification form for the second year or any year thereafter. Line A2 is defined as: "Only water that increases storage for the current SSS year." A detailed example of this issue is reflected in Attachment 2. It is also recommended that the IRP Workgroup analyze and recommend an appropriate discount for long-term storage including carryover storage to be used beginning with FY 1996-97.

Practical Effect - Confirms that an agency should receive credit only once for storing water. However, the JPAC recognizes that the long-term storage incentive should be analyzed. Agencies which had been qualifying for increased SSS credits by certifying with carryover storage in their baseline production ratio will no longer receive those credits.

#### **Storage Owned by Another Agency**

Current Procedure - Storage owned by another agency is not addressed in the current SSS Handbook.

Recommended Procedure - Storage owned by an agency in a reservoir which another agency owns/operates will be excluded from the reservoir owning/operating agency's SSS calculations.

Practical Effect - This recommendation will prohibit any overlap or double counting when calculating SSS credits. Agencies which may have qualified for SSS credits in this manner will no longer be able to receive those credits.

**Extension of Summertime Production Through October For Reservoir Storage**

Current Procedure - SSS service is available from October 1 through April 30 whenever and so long as the General Manager determines that sufficient supplies and system capacity are available. Agencies that certify for reservoir storage have been given the option of continuing to draw down their reservoirs through the month of October and begin their SSS period November 1.

Recommended Procedure - The period of availability will continue to be at the General Manager's discretion and normally begin on October 1 and end on April 30. Additionally, the period of availability will be the same for all agencies. However, the IRP Workgroup should review supplies and demands and change the normal period of availability if needed.

Practical Effect - During periods when abundant supplies of State Water Project are available, it is beneficial for those supplies to be brought into Southern California for use the following year. Agencies which were able to extend summertime production will receive less SSS credits unless they change their mode of operation. If an agency changes its mode of operations, additional water could be stored and qualify for SSS credits.

**Interim Agricultural Water Program**

Current Procedure - The Interim Agricultural Water Program (IAWP) is not addressed in the current SSS handbook. Agencies may account for this water differently.

Recommended Procedure - Agricultural water which receives an incentive through the IAWP will not receive an additional incentive through the SSS Program.

Practical Effect - Acknowledges that although agriculture has benefits which are rewarded through the IAWP, it should not receive a benefit for shift or long-term storage of water.

**Direct Reservoir Storage for Multiple Reservoir Systems**

Current Procedure - SSS credits for direct reservoir storage for multiple reservoir systems are calculated by considering the reservoir system as a whole. Thus, when a net gain is made in one reservoir, the losses due to evaporation from another reservoir reduce the amount of SSS credits the agency is eligible for.

Recommended Procedure - Multiple direct storage reservoirs operated by a single agency will be considered one system for calculation purposes, unless operated independently. For direct reservoir storage, evaporation from reservoirs not directly receiving SSS deliveries shall not reduce calculated SSS credits. Total system yield shall be considered in the credit calculation.

Practical Effect - By treating multiple reservoirs as a single system for calculation purposes, the reservoir gain for the system will be credited, as opposed to singling out individual reservoirs. By limiting evaporation to only those reservoirs that can physically store imported water, only those losses that are directly associated with the direct storage of imported water are included. Agencies with multiple reservoir systems may receive more credits using this calculation methodology.

**Calculation For Local Storage Withdrawn Previous Summer**

Current Procedure - This issue is not addressed in the current SSS Handbook. In practice, reservoir agencies have been separating water into two accounts in the reservoir: local water and imported water. The amount of local water withdrawn during the summer, is determined by the member agency and is used as a limiter for in-lieu reservoir SSS.

Recommended Procedure - Local storage withdrawn shall be calculated based on the total amount of water withdrawn from May 1 to September 30 multiplied by the ratio of local water stored to total storage.

Practical Effect - The use of a ratio of local supplies to total storage is intended to prevent stored imported water from being included as a local supply withdrawal, and to account for the availability of local supplies stored in other reservoirs during the summer withdrawal period. If more local runoff is available, agencies have the opportunity to receive greater SSS credits the following year. If less local runoff is available, agencies have a decreased opportunity to receive SSS credits the following year.

#### **Inter-Agency Transfers**

Current Procedure - The current SSS Handbook states that water sold to or bought from a source other than Metropolitan should be subtracted or added to the annual supply.

Recommended Procedure - An agency which transfers water to another agency shall exclude the groundwater rights which have been transferred, leased or sold to the other agency from its SSS certification form. An agency which receives transferred water from another agency shall include those groundwater rights which have been transferred, leased or bought from the other agency.

Practical Effect - The true shifting and long-term storage for the agencies involved in the transfers is determined. Some agencies will receive less incentives with this procedure.

#### **Well or System Capacity Limitations**

Current Procedure - This issue is not addressed in the SSS Handbook. However, the summer baseline production ratio places limitations on SSS credits based on capacity.

Recommended Procedure - Agencies credits shall be limited to the capacity of the agency to produce water from storage which is of acceptable quality. An agency must be able to demonstrate these qualifying criteria. The instructions on the back of the certification form will state that Metropolitan may require agencies to demonstrate capacity to produce water from storage and demonstrate that the water is of acceptable quality.

Practical Effect - During a supply shortage, if SSS deliveries are ceased, the agency should be able to rely on local sources of supply instead of Metropolitan to meet demands.

#### **Treated Credits versus Untreated Credits**

Current Procedure - Under the SSS program, a discount exists for the treatment surcharge. For FY 1995-96 the discount is \$25 per acre-foot. When an agency certifies for SSS it must designate the credits to treated or untreated noninterruptible water deliveries for billing purposes. Agencies that can take both treated and untreated deliveries apply SSS credits differently to the water they receive. Some agencies apply SSS credits to the treated water first thus optimizing the discounts received. Other agencies apply SSS credits proportionately to their treated versus untreated water deliveries. This issue is not addressed in the current SSS Handbook.

Recommended Procedure - Agencies that can take both treated and untreated deliveries will apply SSS credits proportionately to their total treated versus untreated water deliveries. The exception is an agency with a subagency where the subagency has a specified treated or untreated connection.

Practical Effect - Treated and untreated credits will be applied more appropriately.

**Administrative Improvements**

The following administrative improvements are being recommended by the JPAC to be added to the current SSS Program administrative procedures. There is no current procedure at this time.

**Information Dissemination**

Recommended Procedure - When MWD interprets an aspect of the program for one agency, a written summary of the interpretation shall be distributed to all member agencies as soon as possible. This will ensure consistent and clear communication.

Practical Effect - There will be consistent administrative procedural application to all agencies.

**Annual Assessment**

Recommended Procedure - An annual assessment of an agency's SSS certification will be completed by MWD within 6 months following receipt of finalized information from the agency. In any case, the agency will submit finalized information within eight months after the end of the SSS period being reviewed. Additionally, the revised SSS Handbook shall include a summary of the documentation that needs to be maintained by the member agency to support annual certification assessments.

Practical Effect - Both Metropolitan and member agencies will be able to finalize records and move forward.

**Preliminary Monthly Review**

Recommended Procedure - The MWD staff member assigned to the agency will preliminarily review and check the SSS certification forms for mathematical errors within 30 days after the end of the month the form is received. This review does not preclude Metropolitan from including mathematical errors discovered as a result of an SSS assessment.

Practical Effect - Less differences will be found during the annual assessment.

**Certification Form**

Recommended Procedure - The SSS certification form will be modified to show each of the appropriate months of information. This will allow historic record data to be re-reviewed with each submittal.

Practical Effect - Both Metropolitan and the member agency will have a clearer picture of the operations of the agency and may plan on how the agency should operate.

**Administrative Support**

Recommended Procedure - Additional MWD staffing shall be provided for a more timely review of the forms. MWD staff will be assigned to each agency/operating entity to become familiar with each agency's basin(s) or reservoir(s) and its operational needs. A pre-Seasonal and post-Seasonal review of the agency's operations under the program will be conducted. From these reviews, MWD can better work with the agency to clarify any misinterpretations prior to the program beginning, and can ascertain and assist the agency in optimizing the use of SSS and other Metropolitan Water Management Programs.

Practical Effect - The additional support will help avoid differences in interpretation of administrative procedures found through the assessment. The member agencies' perspective can be better understood for planning purposes.

**Resolution of Differences in Program Interpretation**

Recommendation - If an impasse exists on the interpretation of the program between the agency and the assigned MWD staff, MWD's Chief of Operations has the responsibility to consult with the agency and make a final ruling subject to the General Manager's oversight. If the ruling on the issue is unsatisfactory to the agency, it can be appealed to a Committee of MWD's Board of Directors.

Practical Effect - Gives the member agency a clear course of action to take to resolve a difference in the SSS Program's interpretation.

**Base Points of Program**

The JPAC reached consensus on the following points:

**Baseline Production Ratio** - The proportion of local production to total demands is derived as a production ratio. The annual ratio is called the baseline production ratio while the summer ratio is the maximum baseline production ratio. An in-lieu groundwater agency currently receives shift credits for increasing its summer ratio above its annual ratio.

Position - Continuing the use of both the maximum (summer) baseline production ratio and the baseline (annual) production ratio provides an appropriate limiter for obtaining SSS credits. Using only the maximum baseline production ratio to qualify for SSS credits is inappropriate and does not conform to the goals of the program.

**Availability of SSS Water**

Position - MWD should provide storage water, if abundant supplies are available, throughout the year. However, there is still a need to make sure the water has a regional benefit and these benefits are accounted for. This should be accomplished by incorporating provisions to ensure that the water is not produced from storage during a year when there is abundant supply.

**Requests Forwarded to IRP Workgroup**

Additionally, the JPAC members are forwarding the following items to the IRP Workgroup for further review and analysis.

**Uncontrolled Runoff** - Uncontrolled runoff is a local resource that should not be wasted.

Recommendation - the IRP Workgroup consider a LPP style program for uncontrolled runoff.

**Groundwater Receiving GRP Incentive** - Since GRP projects are baseloaded, including them in the SSS certifications forms will decrease SSS incentives to agencies making the projects not worthwhile.

Recommendation -The IRP Workgroup should analyze the total GRP incentive and make any adjustments necessary for the future.

**Long-Term Storage** - There is a greater benefit to storing water for a drought or emergency use.

Recommendation - The IRP Workgroup analyze and recommend an appropriate discount for long-term storage to be used beginning with FY 1996-97.

**Normal Period of Availability** - SSS is available during October 1 through April 30

whenever and so long as the General Manager determines that sufficient supplies and system capacity are available.

Recommendation - The IRP Workgroup analyze the normal availability period according to supply and demand.

**12-Month Retrospective Proposal** - This proposal was presented to the JPAC by a representative from Anaheim. The agency's baseline ratio for each month would be based on the most recent 12-month moving average, meaning that the ratio would change each month. This ratio is the result of actual local production over the consumptive demands for the previous eleven months (excluding long-term storage, including shift storage from MWD). This ratio is multiplied by the total amount of water into the system for only that month to ascertain the normal baseline production for that month. The actual month's local production is then subtracted from the normal baseline production to derive the total credit for the month.

Recommendation - The IRP Workgroup should analyze the proposal for future application to the SSS Program or alternative water management programs.

**Summer/Winter Rate With Storage Program Differential Proposal** - This proposal was presented to the JPAC by a representative from Central/West Basins. Listed below are the principles of this proposal.

- The mechanism for withdrawing water is terminating storage deliveries, offering only "Basic" service and not including storage deliveries in the base for drought allocations.
- A seasonal differential should be placed on both the "basic" and storage rates. A seasonal component should be added to the "basic" class to meet this primary need for agencies that can only shift operations.
- Agencies should not be able to qualify for storage rates by withdrawing water from storage during a period of availability and refilling during the same period of availability.
- All storage water should be interruptible.

Recommendation - This proposal be forwarded to the IRP Workgroup for further review and analysis to determine if it meets the appropriate IRP goals and is equitable. Attachment 3 contains a brief write-up summarizing the proposal.

**Safe Yield versus Operating Yield** - Some groundwater basins are operated based on their natural replenishment, which is called the safe yield. Other groundwater basins are operated based on a safe yield plus artificial recharge, thus creating an "operating yield". This recharge may include Metropolitan replenishment deliveries. This replenishment water is delivered at the SSS rate during the period of availability. Some agencies feel that there may be a difference in resulting SSS credits between agencies that operate at the safe yield compared to agencies that operate above the safe yield. Depending on supplies, demands, and operations, these differences may be more or less than an agency that operates based on a safe yield.

Recommendation - Due to the complexity of this issue and the many variables used in calculating in-lieu groundwater replenishment SSS credits, it is recommended that this issue be held over for further analysis. The JPAC recommends that the IRP Workgroup review the value of the different types of water stored in groundwater basins and reservoirs and the resulting benefits during a drought. The JPAC will send a memo to the IRP Workgroup recommending

specific tasks to resolve this issue. Because of the wet year and lack of replenishment needs by the basins, the impact of this issue is at a minimum for this SSS Year. Thus, in the interim, it is recommended that the use of the current method of calculation for SSS credits be used. However, this issue must be resolved before the FY 1996-97 SSS year.

Principles and Observations -The following principles and observations were agreed upon by the JPAC and are presented for your approval:

1. Two primary types of SSS water were defined previously in this letter, Seasonal Shift and Long-Term Storage. When defining water types by the benefits derived from delivery of water during normal years and drought years, the Long-Term Storage is further defined into three sub-classes. Listed below are the types of SSS deliveries and the effects of this water during drought years.

**Seasonal Shift**

Firm supply used to shift demand load on Metropolitan facilities from summer to winter. During a drought, this supply would be needed to meet the base needs of an agency.

**Long-Term Storage**

- a. Long Term (Put and Take) - interruptible water taken most years when available from Metropolitan and used to increase the operating yield of a groundwater basin or reservoir system above the safe yield operation, also likely used to refill basins following a suspension of these types of deliveries after restoration of supplies.
  - b. Storage for Local Benefit - water taken very seldom, only when Metropolitan has excess water and nowhere to store it, basically used for local agency benefits. Metropolitan's main benefit is the gain of a sale of water.
  - c. Metropolitan Call Water - contract water callable by Metropolitan for regional benefit to meet a firm demand on the Metropolitan system. It could be water delivered prior to the call or refill water following overdrafting of local supplies.
2. Metropolitan long-term put and take deliveries can be used by groundwater basins to increase the operating yield of the basin above the safe yield.
  3. Groundwater basin agencies should be encouraged to operate above the safe yield if the additional yield can be sustained for several years without replenishment deliveries to provide MWD with interruption ability (one of three goals of SSS program).
  4. There may be a difference in resulting SSS credits between agencies that operate at the safe yield compared to agencies that operate above the safe yield. Using long-term put and take deliveries to increase the operating yield above the safe yield may impact the credits received for SSS depending upon supplies, demands, and operations.
  5. Seasonal Shift and long-term put and take are two distinct and separate programs that have different benefits, the most significant being that the former is a firm demand while the latter is an interruptible demand that can be met from the groundwater basin during a drought.
  6. Direct groundwater replenishment is usually untreated water and in-lieu groundwater replenishment is usually treated water. Thus, a difference in cost may result to agencies depending on the mix of replenishment methods that the agency chooses to take.
  7. Flexibility is needed to utilize both direct and in-lieu storage methods for SSS.

**Next Steps**

The JPAC will continue to work through the end of the summer on finalizing documentation for use within the next SSS period. This documentation, including appropriate Administrative Code changes, will be brought to your Board for your approval before the start of the next SSS availability period.

41548

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

March 13, 1995

To: All Directors  
From: General Manager  
Subject: Seasonal Storage Service Program Review

**Purpose**

I am writing this letter to clear the air on issues which have arisen around the seasonal storage program assessment. Reports that I have received from individual directors and from staff confirm that the process which has been used has created hard feelings, uncertainty about the District's intentions, and interference with other District business.

I have directed that the assessment process be suspended, and intend through this letter to make our intentions clear, so that we can restore our normal working relationships with the member agencies.

**The Program Has Been A Success**

One important fact has been obscured by the assessment: the seasonal storage service program has been a success. It was initiated in 1989 to achieve greater conjunctive use of imported and local water, encourage construction of local production and spreading facilities, and reduce member agencies' dependence on Metropolitan during the peak summer demand months.

The program has resulted in a substantial benefit to the entire Metropolitan service area by developing the physical means to store excess Colorado River and State project water when available, and to withdraw stored water during sustained shortages. The member agencies have invested in new and rehabilitated wells and in new or redeveloped spreading areas.

In addition, by significantly reducing summer peak demands on Metropolitan, the program has reduced or deferred the need for Metropolitan to invest in certain capital

All Directors

-2-

March 13, 1995

improvements. These successes are directly attributable to the participating member agencies' willingness to invest in local facilities, and their overall performance under the program.

Currently, 25 member agencies avail themselves of the Program. Approximately 2 million acre-feet have been delivered under the Program in the past 5 years, and there has been increasing innovation and investment as reliance on the program has grown.

#### **Program Assessment**

Since the inception of the Program, there has not been a complete assessment. Over the last eight months, Metropolitan conducted the initial steps of an assessment of the Program with the participating members, as directed by your Board in a December 14, 1993 letter entitled "Financial Structure Study Recommendations of Rate Structure and Additional Revenue Sources." The purpose of the assessment was to provide base information for evaluating the Program's pricing policies.

However, in meeting with the member agencies to review past certifications and results, Metropolitan and member agency staff have found the usual arithmetic errors, as well as issues on which there were differences in understanding as to how the program was supposed to have worked. This was true despite the fact that there has been substantial communication over time between the staffs, and matters which were believed to have been agreed on, were found not to be agreed on in retrospect.

These differences in understanding involve a few basic issues which our staffs agree require work between the members and Metropolitan in order to reach joint recommendations to bring before your Board in the next month or two. All of the staffs believe that a consensus can be reached and the Program significantly improved by resolution of these issues. However, the fear of retroactive financial consequences is acting to prevent this important work from proceeding.

#### **Course of Action**

The fundamental facts are that the Program has been heavily used by member agencies, these member agencies have relied upon understandings which they believed existed with

All Directors

-3-

March 13, 1995

Metropolitan staff, and in some cases have based facility investments on those understandings. While differences in understanding still exist and must be resolved, this is not unusual in such a complex program.

I do not believe, based on the assessment performed to date, that it is in Metropolitan's long-term interests to pursue retroactive changes in the billings and certifications. Accordingly, I do not intend to recommend adjustments in past billings based on the assessment.

I do intend to make constructive use of the assessment, in partnership with the member agencies. The assessment has been constructive in identifying differences in understanding about certain policies and practices of the Program. These differences can be resolved, and recommendations made for the future administration of the Program. However, in order to prevent future misunderstandings and disagreements, these recommendations must be jointly made by the members and Metropolitan.

Accordingly, I have requested that a Joint Program Advisory Committee be established (JPAC), involving key Metropolitan staff and the member agency managers or their designees. The JPAC will act as a task force to focus on the issues and recommend solutions. This concept has been favorably received to date by the members. Metropolitan's team will involve Deputy General Manager Wiley Horne, along with Division Chiefs Ed Means and Debra Man. Initial meetings of the JPAC will commence at once, and a timetable for its work will be presented to your Board in April. By the end of the fiscal year, I expect to make recommendations to your Board which will incorporate the work of the JPAC with regard to the future administration of the Program, in order that a comprehensive resolution of all issues takes place.

I am looking forward to a timely and lasting resolution of these matters, based on the joint efforts of Metropolitan and its member agencies.

  
John R. Wodraska

FWH

cc: Member Agency Managers

TABLE 1 JPAC RECOMMENDATIONS FOR SEASONAL STORAGE SERVICE	
ITEM	PROPOSED RESOLUTION
<b>GOALS</b>	
1. Goal #3	Keep current goals but add to Goal #3 "and periods of shortage".
<b>DEFINITIONS</b>	
1. Seasonal Shift Storage	Additional summer local production offset by equivalent MWD winter delivery within a 12-month period.
2. Long-Term Storage	Water delivered by MWD to a member agency for storage, by direct or in-lieu means, beyond the 12-month SSS program period.
<b>OPERATING AND ACCOUNTING IMPROVEMENTS</b>	
1. Shutdowns	Provides adjustments for over 7 days.
2. Uncontrolled Runoff	Eliminates one-for-one credit from program; proposed to evaluate under separate program.
3. Reclaimed Water	Eliminate from program unless reclaimed system also directly stores MWD water.
4. Groundwater Recovery	Count water as local production and demand unless otherwise specified by GRP contract.
5. Carryover Storage	Should only receive credit in the year the water is stored.
6. Storage Owned by Another Agency	Exclude from reservoir owning/operating agency's SSS calculations.
7. Extension of Summertime Production Through October	Leave normal availability period as defined. Be consistent for all agencies.
8. Interim Agricultural Water Program	Should not receive a double incentive.
9. Multiple Reservoir Direct Storage	Evaporation from reservoirs not directly receiving MWD deliveries shall not reduce SSS credits.
10. Local Storage Withdrawn	Summer local storage withdrawn should be the ratio of local water stored to total storage.
11. Inter-Agency Transfers	An agency which transfers water should exclude that water from the SSS certification form. An agency which receives transferred water should include that water in the SSS certification form.
12. Well or System Capacity Limitations	Agencies credits should be limited to the demonstrable capacity of the agency to produce acceptable quality of water from storage.

**TABLE 1 (continued)**  
**JPAC RECOMMENDATIONS FOR SEASONAL STORAGE SERVICE**

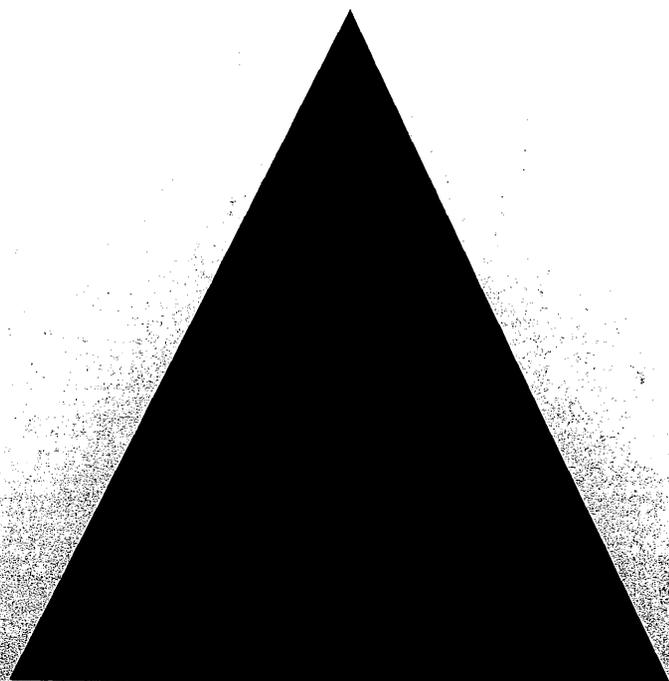
<b>ADMINISTRATIVE IMPROVEMENTS</b>	
1. Information Dissemination	Improve Communication.
2. Annual Assessment	Finalize records at year-end.
3. Preliminary Monthly Review	Initial math check.
4. Certification Form	Revise to show extended period for visual check.
5. Administrative Support	Improve Customer Service.
6. Resolution of Differences	Establish procedure.
<b>Basic Points</b>	
1. Baseline Production Ratio	Continuation of current policy is appropriate.
2. Availability of SSS Water	SSS should be available when supplies are abundant for regional benefit.

**TABLE 2**  
**REQUESTS FORWARDED TO IRP WORKGROUP**

ITEM	REQUEST
1. Uncontrolled Runoff	Evaluate an LPP style program.
2. Groundwater Recovery Program	Evaluate incentive based on groundwater recovery being included in SSS certification.
3. Long-Term Storage	Evaluate appropriate discount for long-term storage.
4. Period of Availability	Analyze appropriate availability period for SSS based on supply and demand.
5. 12-Month Retrospective Proposal	Analyze calculation methodology for use in future
6. Summer/Winter Rate with Storage Differential Proposal	Analyze if Proposal meets IRP goals and is equitable.
7. Safe Yield v. Operating Yield	Review the value of different types of storage and benefits during a drought.

This section uses the following tracking code : 2Fa

This section uses the following index code : 41548



## Page Place Holder Sheet / Page Tracking Sheet

Page Place Holder Sheet

This sheet stands in for a section consisting of 3 total number of pages in this document, including those starting at page number Fig 1 and ending with page number Table 3 as numbered in the document.

Page Tracking Sheet

This section of \_\_\_\_\_ total number of pages has been pulled from the document titled:  
\_\_\_\_\_

This section was pulled for seperate processing due to:

Duplex Pages

Simple Binding

Special Binding

Mounted Components

Page Material

Page Size

Damaged Page

Text on Screen

Image Only Pages

Page Rotation

## CARRYOVER STORAGE EXAMPLE

The Year 1 Chart shows how an agency would qualify for 1,500 AF of SSS credits by shifting operations. This agency does not place any water into long-term storage and has no carryover storage. This agency shifts 1,500 AF of its local production to the summer and takes an additional 1,500 AF of MWD deliveries in the winter.

Page 2 of the Year 1 example show the calculation methodology for this agency. During the SSS year, this agency has produced 6,000 AF of local water. The demands on this agency were 10,000 AF. The baseline production ratio is .6000 (6,000 AF/10,000 AF). In other words, this agency would normally deliver 60% of its monthly demands from local supplies absent the SSS program if it were practicing prudent water management.

Additionally, the agency has produced from local resources 4,692 AF from the period of May through September. Its total water demands during this period were 5,320 AF. Thus its maximum baseline production ratio is .8820. In other words, this agency produced 88.2% of its summer demands clearly showing that it has shifted from its normal production operations of 60% to what it actually produced (88.2%). This agency has now met part of the criteria for receiving shift SSS credits. It has produced 1,500 AF  $((.8820 - .6000) * 5,320 \text{ AF})$  more than it normally would.

During the SSS availability period (normally October 1 through April 30), the total water into the agency's system was 4,680 AF. The agency, absent the SSS program, is expected to normally produce absent the SSS program 2,808 AF or 60% of this demand  $(60\% * 4,680 = 2,808 \text{ AF})$ . However, the agency actually produced 1,308 AF to meet its demands taking MWD deliveries in place of the production. Thus, the agency has met the other half of the criteria for receiving SSS incentives. It qualifies for 1,500 AF of SSS incentives  $(2,808 \text{ AF} - 1,308 \text{ AF} = 1,500 \text{ AF})$ . 1,500 AF of these incentive credits are for the production that occurred above the agency's normal production during the summer.

The Year 2 Chart shows how an agency would qualify for 2,500 AF of SSS credits by shifting and placing water into long-term storage but not including any carryover. This agency shifts 1,500 AF of its local production to the summer and takes an additional 1,500 AF of MWD deliveries in the winter. It also takes 1,000 AF of MWD deliveries leaving local water in the basin as long-term storage. This agency has no carryover.

Page 2 of the Year 2 example show the calculation methodology for this agency. During the SSS year, this agency has produced 5,000 AF of local water and stored for the long-term 1,000 AF of local water for a total water supply of 6,000 AF. The demands on this agency were 10,000 AF. The baseline production ratio is

.6000 (6,000 AF/10,000 AF). In other words, this agency would normally deliver 60% of its monthly demands from local supplies absent the SSS program if it were practicing sound water management.

Additionally, the agency has produced from local resources 4,692 AF from the period of May through September. Its total water demands during this period were 5,320 AF. Thus its maximum baseline production ratio is .8820. In other words, this agency produced 88.2% of its summer demands clearly showing that it has shifted from its normal production operations of 60% to what it actually produced (88.2%). This agency has now met part of the criteria for receiving shift SSS credits. It has produced 1,500 AF  $((.8820 - .6000) * 5,320 \text{ AF})$  more than it normally would.

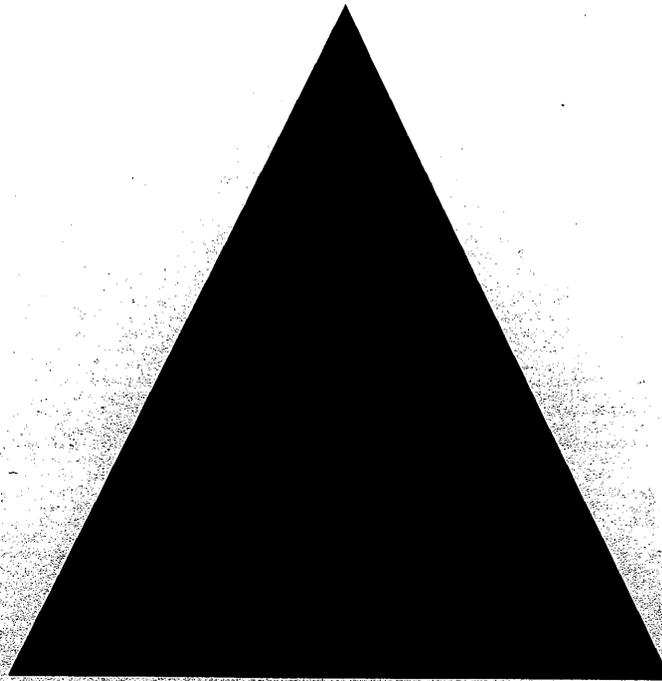
During the SSS availability period (normally October 1 through April 30), the total water into the agency's system was 4,680 AF. The agency, absent the SSS program, is expected to normally produce absent the SSS program 2,808 AF or 60% of this demand  $(60\% * 4,680 = 2,808 \text{ AF})$ . However, the agency actually produced 308 AF to meet its demands taking MWD deliveries in place of the production. Thus, the agency has met the other half of the criteria for receiving SSS incentives. It qualifies for 2,500 AF of SSS incentives  $(2,808 \text{ AF} - 308 \text{ AF} = 2,500 \text{ AF})$ . 1,500 AF of these incentive credits are for the production that occurred above the agency's normal production during the summer, while the other 1,000 AF is for the water that was delivered into long-term storage for that SSS year.

The Year 3 Chart shows an agency which has shifted, stored water into long-term storage during the SSS year and included carryover in its certification form. By including this carryover, the agency's baseline production ratio increases to .7000 (7,000 AF/10,000 AF). As a result, this agency qualifies for 2,968 AF of SSS credits. This agency shifts 1,500 AF of its local production to the summer and takes an additional 1,500 AF of MWD deliveries in the winter. It also takes an additional 1,000 AF of MWD deliveries leaving local water in the basin as long-term storage. This agency includes 1,000 AF as carryover from Year 2. Essentially, this agency is operating identical to Year 2 but qualifying for 486 AF more credits than Year 2 because of the increase in the baseline production ratio. 1,500 AF of credits is for shifting, 1,000 AF of credits is for current year long-term storage and 486 AF of credit is for long-term storage from Year 1.

The Year 4 chart shows the agency qualifying for 3,436 AF of SSS credits by shifting, delivering water into long-term storage and including carryover from Years 2 and 3 as local water to be delivered into long-term storage. By including this carryover, the agency's baseline production ratio increases to .8000 (8,000 AF/10,000 AF). As a result, this agency is operating identical to Year 2 but qualifying for 936 AF of more credits as a result of the increase in the baseline production ratio. 1,500 AF of credits are for shifting, 1,000 AF of credits are for current year long-term storage, and 936 AF of credits are for long-term carryover storage from Years 2 and 3.

This section uses the following tracking code : 2Fb

This section uses the following index code : 41548



## Page Place Holder Sheet / Page Tracking Sheet

Page Place Holder Sheet

This sheet stands in for a section consisting of 8 total number of pages in this document, including those starting at page number \_\_\_\_\_ and ending with page number \_\_\_\_\_ as numbered in the document.

Page Tracking Sheet

This section of \_\_\_\_\_ total number of pages has been pulled from the document titled:  
\_\_\_\_\_

This section was pulled for separate processing due to:

Duplex Pages

Simple Binding

Special Binding

Mounted Components

Page Material

Page Size

Damaged Page

Text on Screen

Image Only Pages

Page Rotation

3. If MWD declares water is available for storage during the summer, the lower "Storage" category rate would also encourage summer storage. In addition, since shift operations are being encouraged by simple seasonal pricing rather than the current summer production qualification and certification process, there would be no incentive for an agency to over-produce water from storage during the summer while MWD was trying to encourage summer storage.
4. Before and during shortages, MWD's mechanism for ensuring the retrieval of water purchased and stored under the "Storage" category would be to terminate further deliveries of water in the "Storage" category, offer only the "Basic" category of service, and tie the retrieval of water from storage to MWD's drought management plan.

The consensus of the JPAC is that the proposal outlined above could provide a more straightforward approach to effectively meet both shift and long-term storage and retrieval goals, and could provide greater coordination of long-term storage and drought management objectives.

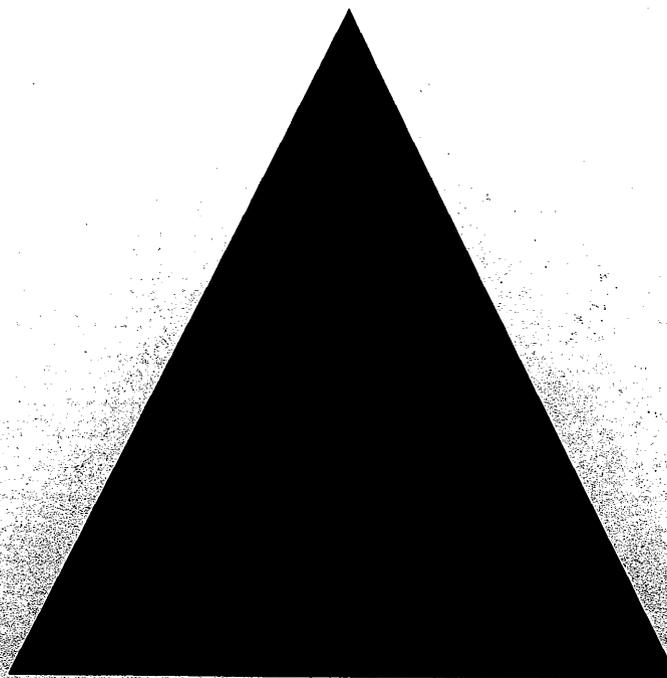
#### *Recommended Next Steps*

The JPAC recommends that the IRP Workgroup consider the proposal in more detail and address the following issues:

- The pricing differential between the "Basic" and "Storage" categories and the seasonal (i.e. summer/winter) differential for each category needed to meet both shift operation and long-term storage objectives.
- How the Readiness-to-Serve and New Demand charges would be applied, and their effect on determining appropriate pricing differentials.
- The amount of storage reserves and production capacity necessary for agencies to have during imported water shortage periods, and how the proposed program outlined herein would need to be specifically structured to meet those needs.
- To evaluate the effectiveness of the proposal, specific case studies and operational examples should be developed and reviewed among the IRP Workgroup.

This section uses the following tracking code : 2Fc

This section uses the following index code : 41548



## Page Place Holder Sheet / Page Tracking Sheet

Page Place Holder Sheet

This sheet stands in for a section consisting of \_\_\_\_\_ total number of pages in this document, including those starting at page number \_\_\_\_\_ and ending with page number \_\_\_\_\_ as numbered in the document.

Page Tracking Sheet

This section of \_\_\_\_\_ total number of pages has been pulled from the document titled:

---

This section was pulled for separate processing due to:

Duplex Pages

Simple Binding

Special Binding

Mounted Components

Page Material

Page Size

Damaged Page

Text on Screen

Image Only Pages

Page Rotation