

CHAPTER VI

IMPACTS OF MONITORING/COMPLIANCE MECHANISMS AND ALLOCATION/CONSERVATION OF NEW WATER SUPPLIES

A. INTRODUCTION

This chapter evaluates the impacts of current and alternative practices and policies for District administration of the Allocation Program in terms of monitoring jurisdictional water use and determining jurisdictional compliance with the Allocation Program. This chapter also evaluates the impacts of alternatives for the allocation and/or conservation of new water supplies within the context of the Allocation Program.

B. MONITORING/COMPLIANCE MECHANISMS

To administer the District's Water Allocation Program, the District has developed several policies and procedures, which have been modified over time. In addition, the District has determined that alternatives to current policies and procedures should be evaluated as part of this EIR.

1. Fixed-Year Versus Rolling-Year Monitoring and Compliance Determinations

Methodology and Analysis

Under the District's Rule 30, the District Board annually adopts water allocations for each jurisdiction within the Cal-Am service area. These allocations can theoretically vary from year to year as the total amount of water available for allocation varies and based on changes in the formula, demand, jurisdictional boundaries, and other factors. These allocations must be set each year for the following water year (i.e., July 1st to June 30th). Ordinarily, these allocations are made in May of each year. In practice, the District Board has readopted the same percentage distribution formula for the jurisdictions each year since April 1981.

To determine whether water use in each jurisdiction is within the District's adopted allocation for the jurisdiction, the District Board each year in October compares water usage as reported by Cal-Am for each jurisdiction during the previous water year with the jurisdiction's allocated amount of water for that year. This procedure is set out in Rule 41 of the District's *Rules and Regulations*, as follows:

Annual Water Demand Report

The General Manager shall annually by on or about October 1 compile a report stating the amount of water delivered to users, the number of new connections, and an estimate of water demand from new connections in the preceding water year for each water distribution system in the Cities of Carmel-by-the-Sea, Del Rey Oaks, Pacific Grove, Monterey, Sand City, and Seaside and the portion of Marina and the County of Monterey inside the District. The report will further state the municipal unit allotment for each water distribution system determined by the Board for that year.

Findings

The Board of Directors shall hold a public hearing to review the Annual Water Demand Report and other evidence as necessary, and determine if the previous water year's water delivery to any municipal unit exceeds that municipal unit's allotment for any water distribution system. Where the water deliveries in the previous water year have been exceeded, or where the Board finds that a municipal unit's usage exceeds any municipal units allotment for any water distribution system, the Board of Directors shall suspend the authority of that unit to issue permits to expand or extend that water distribution system and direct the General Manager to deny any application for permit to expand or extend that water distribution system.

Notification

The General Manager shall, within thirty (30) days, notify all municipal units of the findings of the Board regarding municipal unit compliance with that municipal unit's allotment. Notice of the action shall be deemed to have been given when the written notification has been deposited in the mail, postpaid, addressed to the municipal unit, or when personally delivered to the municipal unit.

It should be noted that this EIR assumes that the Monterey Peninsula Airport District, which previously did not have a separate allocation, will be included among the jurisdictions to receive an allocation in future District Board allocations.

One of the problems with the current procedure is that a jurisdiction may exceed its annual water allocation (for any given 12-month period) many months before this fact is officially reported, thus delaying corrective action by the District Board or the jurisdiction. For example, a jurisdiction may exceed its water allocation (for a 12-month period) in July (i.e., in the first month of a water year), but this information would not be officially reported by Cal-Am under current procedures until the end of the water year (after the next July 1) and would not be officially reviewed by the Board until October, some 14 months after the allocation was exceeded. During this period, the District would be obliged to continue issuing water meter permits for new and expanded uses within the jurisdiction.

As an alternative to the current "fixed-year" monitoring process, the District has considered instituting a monitoring and compliance determination procedure based on a "rolling year." Under this procedure, jurisdictional water usage for the previous 12-month period would be monitored by MPWMD each month based on Cal-Am monthly reports. This would allow the District to more frequently, and therefore more closely, monitor compliance with its allocations and would shorten the lag time between the point at which a jurisdiction exceeded its allocation and the point at which corrective action could be taken by the District.

Impacts and Mitigation Measures

As discussed above, the current monitoring and compliance determination procedure would theoretically allow a jurisdiction to exceed its annual water allocation for up to a year before this fact was officially reported and up to 14 months before the Board reviewed this information. In practice Cal-Am already reports jurisdictional water usage for the previous 12-month period on a monthly basis. Although, Cal-Am is already "unofficially" reporting jurisdictional water on a "rolling-year" basis, the District Board under Rule 41 is prevented from taking corrective action until October following the end of the water year.

In the meantime a jurisdiction that had exceeded its annual allocation could continue to issue building permits and the District would be obliged to issue water meter permits for that development until formal action could be taken by the Board in October. At the point the Board was legally in a position to discontinue issuing water meter permits within that jurisdiction, the water use approved in excess of the jurisdiction's allocation would be permanently committed and the District would be unable to require that total jurisdictional water use be rolled back to within its allocated amount.

In effect, a jurisdiction that exceeded its water allocation would be using another jurisdiction's water. While this currently poses no problem since every jurisdiction is still below its allocation limit, this could become a serious problem as the eight jurisdictions collectively begin to approach Cal-Am's total supply limit. When collective water use reaches Cal-Am's total supply limit, the water used by a jurisdiction in excess of its allocated amount would simply not be available to another jurisdiction that is still under its limit.

Another problem with the current procedure is that a jurisdiction that has exceeded its allocation limit but can bring its water use back within its allocation limit in a relatively short time could not return to the Board to have the District's moratorium on water meter permits lifted until the following October when the Board formally reviewed the annual Cal-Am water use report.

The alternative procedure of monitoring and determining jurisdictional water use compliance on a "rolling-year" basis avoids virtually all the problems with the current "fixed-year" procedure. Under the "rolling-year" procedure, each jurisdiction would be allocated water on a "rolling-year" basis (i.e., any 12 consecutive month period), Cal-Am would report each jurisdiction's water use on a monthly basis for the previous 12-month period, and the District would review the monthly Cal-Am reports and be able to take corrective action immediately. The lag time between a jurisdiction exceeding its allocation limit and corrective action by the Board, therefore, should not exceed one to three months. This would provide little opportunity for a jurisdiction's limit to be substantially exceeded on a permanent basis.

As a variation on the "rolling year" procedure, the District Board could delegate to District staff the authority to discontinue issuing water meter permits on an interim basis in a jurisdiction that exceeded its water allocation limit as soon as Cal-Am reported this fact to the District in its monthly reports, pending formal review by the District Board. This procedure would shorten even more the lag time between a jurisdiction exceeding its allocation limit and corrective action.

Impacts: As changes in the District's administrative procedures, none of the alternatives discussed above would have significant environmental effects for the purposes of CEQA.

Mitigation Measures: None required.

2. Fixed Formula Versus Discretionary Action

Methodology and Analysis

Under Rule 30 of MPWMD's *Rules and Regulations*, the District Board retains total discretion in setting annual jurisdictional water allocations each year. Rule 30 only specifies the factors to be considered by the Board in setting the allocations. In practice, the Board has annually readopted, without modification, the same allocation formula it originally established in 1981.

The current practice has raised a number of questions. First, should the process of establishing the jurisdictional water allocations each year remain discretionary, or should the Board adopt a fixed formula, such as one of the six water distribution alternatives discussed in this EIR, including its current formula. In the former case, the process creates uncertainty for the affected jurisdictions, is subject to the influence of current political considerations, but provides flexibility for changed circumstances. A fixed formula would increase certainty for the affected jurisdictions, minimize the role of political considerations, but would inhibit modifications occasioned by changed circumstances.

The second set of questions concerns the need for periodic review of and adjustments to a fixed formula, should this approach be adopted. The District could, for example, schedule a periodic formal review and adjustment of the allocation formula. Such review and adjustment could take place every year, every other year, every third year, or at any other interval the District Board deemed appropriate. As another alternative, the District could review and adjust the allocation formula on an as-needed-basis.

A third set of questions concerns what information should be considered in these formal reviews and what information should be used as the basis of adjustments to the formula. The following are some of the possibilities:

- Availability of new information on the total amount of water available to the Cal-Am system based on recalibration of the Carmel Valley Simulation Model (CVSIM).
- Addition of new water sources to the Cal-Am system.
- Development of constraints on the water sources available to the Cal-Am system.
- Change in jurisdictional buildout potential or water demand based on the adoption of a revised general plan.
- Changes in assumptions concerning water use factors associated with various land uses.
- Reductions in demand for potable water based upon the substitution of subpotable water supplies for potable water supplies, such as for landscape irrigation.
- Annexation of new territory by an existing jurisdiction with a water allocation.
- A request by an existing or new federal, state, or local agency (other than one of those that currently has a separate water allocation) to receive a discrete allocation for Cal-Am water.
- Changes in the Cal-Am service area resulting from Cal-Am acquiring an existing water distribution system.

Impacts and Mitigation Measures

The first set of alternatives concerns whether the District's process of establishing jurisdictional water allocations should remain discretionary or should be based on a fixed formula, such as one of the six water distribution alternatives discussed in this EIR.

The discretionary approach has several drawbacks. First, this approach would create great uncertainty for the jurisdictions, which must regularly make land use and development decisions. Jurisdictions would be in a position of reviewing and approving development projects without any assurance that water would be available in the future to support such development. This would be particularly problematic for multi-phased projects that would be developed over several years. This uncertainty might also discourage investors and developers from considering, let alone initiating, new projects within the eight effected jurisdictions.

Second, the discretionary approach would create more opportunities for political considerations to play a major role in allocation decisions. In effect, the eight affected jurisdictions would be

pitted against one another on a regular basis in trying to convince the Board to fund their development plans with water. The Board would have no systematic or consistent basis for judging which jurisdictions and, indirectly, which development projects should be allocated water.

The "fixed formula" approach on the other hand provides certainty, consistency, and some measure of equity in the allocation process. Jurisdictions would know from year to year how much development they could approve based on how much water they were allocated. They would be able to make longer-term development decisions. This in turn would create greater certainty for investors and potential developers. This approach would also provide an opportunity to include in the allocation process a more consistent basis for consideration of comparative need and equity among the jurisdictions. Political considerations and jurisdictional competition under this approach would presumably be more limited than under the discretionary approach, with attention focused on the operation of the formula instead of on the particular circumstances of any one jurisdiction at a given point. The fixed-formula approach would, however, reduce flexibility in responding to changed circumstances.

The second set of alternatives concerns how often a fixed formula should be reviewed and adjusted, should the District choose to adopt a fixed formula. Currently, the District makes allocation decisions on an annual basis. Alternatives to the current annual procedure include reviewing and making adjustments to the allocation formula on an as-needed, a biennial, a triennial, or some other periodic basis.

Review and adjustment on an as-needed basis would likely create greater uncertainty for all jurisdictions in their planning and development review processes. This procedure would also mean that the District Board would be making decisions on a case-by-case basis without a larger framework within which to judge the merits of the proposed adjustments. Finally, this procedure could create an administrative burden for the District in terms of evaluating several proposed adjustments every year.

Annual review of the allocation formula avoids most of the problems associated with review and adjustment on an as-needed basis. It would reduce administrative burdens, establish a larger framework within which to judge the merits of individual proposed adjustments, and provide an equal opportunity for all affected jurisdictions to participate in and influence the review and adjustment process.

Review and adjustment on a biennial, triennial, or some other periodic basis would have the same advantages as the annual review and adjustment process but might prevent the Board from making adjustments to respond to changed circumstances as rapidly as might be needed or desirable.

The third set of alternatives concerns what information should be used as the basis of making adjustment to the formula. The following are some of the possibilities:

- Availability of new information on the total amount of water available to the Cal-Am system based on recalibration of the Carmel Valley Simulation Model (CVSIM).
- Addition of new water sources to the Cal-Am system.
- Development of constraints on the water sources available to the Cal-Am system.
- Change in jurisdictional buildout potential or water demand based on the adoption of a revised general plan.
- Changes in assumptions concerning water use factors associated with various land uses.

- Reductions in demand for potable water based upon the substitution of subpotable water supplies for potable water supplies, such as for landscape irrigation.
- Annexation of new territory by an existing jurisdiction with a water allocation.
- A request by an existing or new federal, state, or local agency (other than one of those that currently has a separate water allocation) to receive a discrete allocation for Cal-Am water.
- Changes in the Cal-Am service area resulting from Cal-Am acquiring an existing water distribution system.

All of these possibilities represent logical and reasonable bases for making adjustments to the allocation formula. Some would affect the total amount of water to be allocated; some would affect all jurisdictions' allocations based on the use of new assumptions; and, others would affect allocations based on jurisdictional changes.

Impacts: As changes in the District's administrative procedures, none of the alternatives outlined above would have significant environmental effects for CEQA purposes.

Mitigation Measures: None required.

3. Grace Amount

Methodology and Analysis

Water use varies within jurisdictions from year to year based on the amount of new development that has occurred, the effects of water conservation measures, and variations in climatic conditions. New development or increased water use by existing development may cause a jurisdiction to exceed its water allocation in any one year. This, however, may be offset by water conservation measures that would bring water consumption back into compliance with the jurisdiction's water allocation limit.

To date, no jurisdiction has exceeded its adopted water allocation. Carmel-by-the-Sea did, however, approach its limit in 1986. When this happened, the City of Carmel-by-the-Sea responded by adopting an aggressive water conservation program and by requesting that its allocation be increased. Carmel-by-the-Sea was granted an additional 100 acre-feet of water per year as part of an "interim allocation"; the District also adopted an interim "grace amount" provision allowing any jurisdiction exceeding its allocation to temporarily borrow up to 100 acre-feet.

This interim grace amount provision was adopted by the District Board as part of a settlement agreement in *Carmel-by-the-Sea v. Monterey Peninsula Water Management District*. The relevant provisions read in part as follows:

6. *In the event total Cal-Am consumptive water sales remain at or below 18,400 acre-feet per year, the Water Management District shall apply its Rule 41 to allow any municipal jurisdiction which has utilized its maximum interim allocation to temporarily use a portion of the total remaining Cal-Am water available for community consumptive water sales. Any one municipal jurisdiction may exceed its interim allocation only by a maximum of 100 acre-feet per year of consumptive water sales. All jurisdictions may, in the aggregate, exceed their interim allocations only by a maximum of 300 acre-feet per year of consumptive water sales. Consumption exceeding 100 acre-feet per year of a jurisdiction's interim allocation shall subject that jurisdiction to a water moratorium in accord with Water Management District Rule 41.*

7. *Where available data regarding existing water use and approved projects shows that any municipal jurisdiction will exceed the Water Management District interim allocation, and concurrent with the utilization of any portion of the 100 acre-feet per year which is available in excess of that jurisdiction's allocation, that jurisdiction shall agree to use its best efforts, with all due diligence, including all means reasonably available, to reduce water consumption or demand to a level below that jurisdiction's interim allocation within a reasonable period of time. A written plan to reduce water demand to a level below the jurisdictional interim allocation shall be submitted for approval to the Water Management District by the jurisdiction within sixty (60) days of the date it first was known that the jurisdiction exceeded its allocation. The provisions of Paragraphs 6 and 7 of this order shall apply only to the interim allocation, and shall have no force or effect with reference to the final water allocation plan adopted by the Water Management District.*

This policy has raised concerns about what would happen if a jurisdiction borrowed against this grace amount, but was unable to bring its water use back within its allocation limit before the water was needed by another jurisdiction that had not exceeded its allocation.

The question for analysis in this EIR is the effect of the District continuing the interim policy and procedures outlined above as part of the District's Allocation Program. The District may choose to continue this interim approach, or may choose to modify or eliminate it.

Impacts and Mitigation Measures

As discussed above, the District's current 100 acre-foot "grace" provision creates the possibility that a jurisdiction may borrow up to 100 acre-feet and not be able to bring its water use back within its allocation limit before the water is needed by another jurisdiction that has not exceeded its limit. The 300 acre-foot total limit on all jurisdictional use of the "grace" water would presumably, at least in the short run, provide a safeguard against this eventuality. However, in future years as jurisdictions collectively approach Cal-Am's total supply limit, the District's current policy may result in the District being unable to issue water meter permits in one or more jurisdictions entitled to water under their allocations since the total Cal-Am water supply limit would have been reached.

Eliminating the current District "grace" provision would avoid the problems outlined above, since the District would simply stop issuing water meter permits at the point water use in a jurisdiction reached the jurisdiction's allocation limit. This would assure the availability of water for the other jurisdictions that had not yet reached their allocation limits.

Circumstances, however, may arise in which factors combine (e.g., a warmer than usual year and newly approved development) to push a jurisdiction's water use temporarily over its allocation limit. The jurisdiction may be able in a relatively short time (e.g., six to twelve months) to bring its use back within its allocation limit. In such a case, the inability of the District to issue water meter permits in that jurisdiction may create economic hardships for developers and property owners with projects approved by the jurisdiction.

One variation on the interim "grace" provision would enable each jurisdiction to use the "grace" amount once, and only once. This would eliminate the problem of a jurisdiction continually "bumping" over its water allocation limit, but would enable a jurisdiction to overcome an anomaly caused by unanticipated use factors such as unusually warm weather in a single month.

Another variation would be to allow jurisdictions to use "grace" water derived from a separate District "grace reserve." This reserve could be created over time from conserved water supplies resulting from reclamation projects or conservation efforts.

Yet another variation would be to limit any jurisdiction so that it could dedicate only a portion of its allocation (i.e., 99 percent) to development, reserving the balance as an internal jurisdictional "grace reserve."

Impacts: As changes in the District's administration procedures, none of these alternatives would have significant environmental effects for CEQA purposes.

Mitigation Measures: None required.

C. ALLOCATION/CONSERVATION OF NEW WATER SUPPLIES

A major policy question for the District is how water saved through conservation, water freed-up for new use by reclamation projects, or potable water made available through development of new supplies should be treated in the context of the District's Allocation Program. The question of rededication of freed-up water to new permanent uses highlights the issue of the relationship among the District's three primary responsibilities (i.e., municipal supply, drought protection, and environmental protection). In responding to situations in which new water becomes available, the District Board must weigh the competing values underlying these three responsibilities and decide if and how much of this water should be conserved or allocated to new uses.

In July 1988, the District Board adopted a new policy for the reallocation of saved water, but, at the request of Monterey County, the Board decided to rescind the policy and include it as a proposal for consideration in this EIR. The following paragraphs present the concept proposed by the District Board for analysis in this EIR:

Purpose

The MPWMD desires to conserve potable water, reclaim subpotable and wastewater sources, and develop a new potable water supply so as to meet the needs of planned growth, protect the community against drought, and to enhance the environment of the Monterey Peninsula. The District has adopted a long-term goal of reducing demand by 15 percent by the year 2020 and a short-term goal of reducing demand by 9 percent by the year 1990. The District requires the cooperation of the six peninsula cities, the county, the water purveyors, and the community to reach these goals.

Conservation

Conservation refers to mechanical or behavioral reductions in potable water demand resulting from a structured program. Programs such as distribution of kits and regulations requiring retrofit of fixtures are examples of mechanical conservation efforts. Advertising and public service announcements are examples of behavioral conservation programs.

Cal-Am water saved through conservation shall not be subject to reallocation. Such savings will automatically remain in the land-use planning agencies allotment in the form of reduced total metered sales. The city/county retains discretion as to the rededication of this water. The District encourages the city/county to set up to 50 percent of this saved water aside as a reserve to balance fluctuations in demand between years, and in recognition of the fact that conservation measures reduce capacity to conserve further in times of drought.

Reclamation

Reclamation refers to the recovery of subpotable or wastewater sources so as to substitute this supply for irrigation applications currently using potable supply. As such, projects such as the CSD-PBCSD wastewater reclamation project reduce metered sales in one or more jurisdictions.

Water saved through reclamation, where the project reclaims less than 50 acre-feet, shall not be subject to reallocation. Reclaimed water savings in excess of 50 acre-feet shall be reallocated by the District Board following CEQA review.

The portion of the reclaimed water necessary to secure a project sponsor shall be dedicated to that fiscal sponsor. The balance of the saved water will be apportioned between environmental/drought reserve and growth at the discretion of the MPWMD Board. The water determined available for reinvestment for growth will then be allocated to each jurisdiction at the discretion of the MPWMD Board....

Development of New Potable Water Supply

Projects that add new potable water supply may increase Cal-Am's system capacity limit and afford additional water for allocation. Such projects include the District's water supply efforts or efforts of private parties such as Cal-Am. Additionally, land-use development or non Cal-Am water distribution systems may propose dedication of production facilities to Cal-Am or the District such that firm yield would increase. Finally, current non Cal-Am water rights may be permanently extinguished such that firm Cal-Am yield would increase. Water afforded through these opportunities shall be processed by the District Board following CEQA review. The Board will determine the magnitude of the system capacity limit. The Board will then dedicate the portion of the developed water to the project sponsor. The balance of the saved water will be apportioned between environmental/drought reserve and growth at the discretion of the Board. The water determined available for reinvestment for growth will then be allocated to each jurisdiction at the discretion of the Board.

The following sections describe the means by which water might become available, alternative approaches being considered by the District for reallocating or conserving this "new" water, and the impacts of these alternatives.

1. Conservation

Methodology and Analysis

According to the policy proposed by the District, Cal-Am water saved through conservation would not be subject to reallocation. Such savings would instead automatically remain in the conserving jurisdiction's allotment in the form of reduced total metered sales. The jurisdiction would retain discretion as to the rededication of this water. The District's proposed policy would encourage each jurisdiction to set aside up to 50 percent of its saved water as a reserve to balance fluctuations in demand between years, and in recognition of the fact that conservation measures reduce capacity to conserve further in times of drought.

Alternatives to the District's proposed policy could include variations on the same essential components. For instance, rather than having the conserved water remain in the conserving jurisdiction's allocation, it could either be reallocated by the District according to the District's chosen distribution formula (e.g., one of the six distribution alternatives discussed in this EIR), or it could be preserved by the District in the form of reduced Cal-Am production from MPWRS as drought or grace reserve for all jurisdictions within the Cal-Am service area.

Impacts and Mitigation Measures

Under the District's proposed policy, Cal-Am water saved through conservation would not be subject to reallocation, but would remain in the conserving jurisdiction's allocation. This means the jurisdiction could rededicate some or all of the conserved water to new development or intensification of existing uses.

One advantage to this approach is that it rewards a jurisdiction that conserves water by allowing that jurisdiction to approve more development. Additional water for new development or intensification within the jurisdiction and throughout the Cal-Am service area would allow for expansion of the jurisdiction's and the area's housing stock and employment base and provide for the maintenance of the area's irrigated landscape.

On the other hand, the additional development that could occur if all saved water is reinvested in new development or intensification of existing uses could be substantial. For example, if jurisdictions collectively were able to meet the District's goal of reducing demand in existing development by nine percent by the year 1990, this would free-up 1,540 acre-feet of water (i.e., 1987 metered sales plus water required for projects approved/completed in 1987 multiplied by 9 percent).

Chapters IV and V in this EIR assess the impacts of the various combinations of water supply options and distribution alternatives based on two assumptions about baseline production/consumption. As explained in Section B of Chapter II, Baseline A assumes that there will be no water conservation, and Baseline B assumes that the District's nine percent conservation goal will be achieved and that all 1,540 acre-feet of the additional "conserved" water would be reinvested in new development through one of the six water distribution alternatives. To illustrate (assuming Water Supply Option III and Distribution Alternative IV), 1,540 acre-feet of additional water would support development of 653 single-family homes, 3,531 multi-family units, 6,053 new jobs, and 793 hotel rooms. This additional development could have significant impacts on the roadway system as well as on other public facilities.

Another significant problem with this approach is that it would make water management during drought times more difficult. If a household or business does not exert much effort to save water during periods of normal supply, during periods of drought it can relatively easily change a few water-wasting habits and cut its water use. For a household or business that routinely saves water, however, there is little more that can be saved during a drought, and its water use remains roughly the same. Likewise, as a community becomes more efficient in its use of water, its ability to conserve further decreases. This problem is compounded by the fact that technology (e.g., retrofitting with low-flow plumbing fixtures, installation of drip irrigation systems) and not behavior is being used as the principal means to save water. If the water saved through conservation is reinvested in new development, there would be two significant consequences. First, as growth occurs, more people and businesses would be exposed to drought risk, including rationing. Second, rationing for all would become more difficult, and possibly painful. Landscape and other losses, curtailment of business hours, layoffs, and other hardships could result.

In recognition of this potential problem, the District's proposed policy would encourage each jurisdiction to set aside up to 50 percent of its saved water as a reserve to balance fluctuations in demand between years and to provide a cushion during drought years. The 50 percent reserve could be preserved by each jurisdiction by lowering its internal allocation limit or by limiting the amount of water-using development it approves.

The jurisdictional drought reserve would minimize potential hardships during drought years and would reduce the possibility that a jurisdiction would exceed its water allocation limit and thus be subject to a District moratorium.

On the other hand, it would be difficult to identify how much water has been saved through conservation, since water use is also influenced by non-conservation factors such as weather. Required water rationing in recent years has also made it difficult to quantify conservation savings. This approach also raises questions about how the District could enforce a 50 percent jurisdictional reserve.

An alternative to jurisdictions maintaining their own reserves is to have the District preserve conservation savings through lower jurisdictional allocations. This water would in effect be held in reserve by the District for times of drought and in the meantime would be reflected in lower Cal-Am production to the benefit of environmental values. If jurisdictions collectively were able to meet the District's goal of reducing water demand in existing development by nine percent by the year 1990, Cal-Am annual production could be reduced by 1,540 acre-feet (plus an estimated seven percent for system loss). This would also significantly reduce development-related impacts, such as traffic, as described in Chapter IV, compared to the alternative of allowing the water to be reinvested in new development or intensification of existing uses.

One of the major problems with this approach is that it removes one incentive from individual jurisdictions to conserve water, since the water conservation savings from each jurisdiction would be held for times of drought when the water would be available to offset shortfalls throughout the Cal-Am service area. Benefits, however, would still accrue to the larger community as drought vulnerability would be reduced and environmental protection would increase.

Impacts: The impacts on public facilities and services of allowing conserved water to be reinvested in new development or intensification of existing uses are potentially significant. Ultimately, the issue in these alternatives is the relative benefits between increased development in the Monterey Peninsula area versus lowering annual Cal-Am production and providing for increased drought protection and environmental protection.

Mitigation Measures: None required if all saved water is conserved. Mitigation measures for increased development if conserved water is reinvested in new development are discussed in Chapters IV and V.

2. Reclamation

Methodology and Analysis

Another major policy question for the District is how potable water supplies freed-up by reclamation projects should be reallocated and/or conserved within the context of the District's Allocation Program. The Carmel Sanitary District-Pebble Beach Community Services District (CSD-PBCSD) is currently proposing such a wastewater reclamation project.

The District's proposed policy is that water saved through reclamation projects reclaiming less than 50 acre-feet would not be subject to reallocation. For projects larger than 50 acre-feet, reclaimed water savings in excess of 50 acre-feet would be reallocated and/or conserved by the District following CEQA review. The portion of the reclaimed water necessary to secure a project sponsor would be dedicated to that fiscal sponsor. The balance of the saved water would then be apportioned between environmental/drought reserve and growth at the discretion of the

be apportioned between environmental/drought reserve and growth at the discretion of the District Board. The water determined to be available for rededication to new development would then be allocated to each jurisdiction at the discretion of the District Board.

Variations on this proposed policy could include different methods of funding reclamation (e.g., no fiscal sponsor), different approaches to reallocating water to project sponsors, different standards for the size of projects over which water would be reallocated (instead of 50 acre-feet), and changed apportionment of water between environmental/drought reserve and new development.

Impacts and Mitigation Measures

Generally, the advantages, disadvantages, and impacts of rededication and/or conservation of water freed-up by reclamation projects would be similar to those for conservation savings discussed in the previous section.

Under the District's proposed policy, water saved by reclamation projects of 50 acre-feet and under would not be subject to reallocation, but could be rededicated to new development or intensification of existing uses within the jurisdiction or jurisdictions undertaking the reclamation project. For projects over 50 acre-feet, water savings in excess of 50 acre-feet would be reallocated by the District Board following CEQA review.

Increased potable water supplies within a jurisdiction or within the Cal-Am service area would allow for expansion of the jurisdiction's and the area's housing stock and employment base and provide for the maintenance of the area's irrigated landscape. Using reclaimed water also has the advantage to the users of the reclaimed water of assuring a continued supply of water even during a drought period.

If any freed-up water is rededicated to new development or intensification of existing uses, however, development-related impacts, such as traffic, would increase. These impacts would vary depending on the amount of new potable water available, on where the new water was used, and which types of projects were developed with the new water. At the same time, vulnerability to drought conditions would increase. If potable water freed-up by reclamation is used to support new development, more people and businesses would be exposed to drought risk, including rationing. In addition, if reclaimed water is substituted for potable water for landscape irrigation, the potable water formerly used for landscape irrigation would no longer be available as a source of conservation savings during drought periods. Reductions in water use during such periods would have to be achieved in other uses, such as housing, that rely on potable water supplies. If these uses are already conserving water, then further cutbacks would be extremely difficult to achieve and possibly painful.

If the District itself retained some or all of the water for drought reserve above what was required to secure a project fiscal sponsor, this would reduce drought vulnerability, leave more water for the protection of environmental values, and minimize development-related impacts. Obviously, the more water the District retained, the larger would be the positive environmental impacts.

The impacts of changing the size of the projects for which water would be subject to District reallocation would depend on whether the additional water (beyond what was required to secure a project fiscal sponsor) was rededicated to new development or intensification or held by the District for environmental/drought reserve.

Impacts: The impacts of rededication to new development and/or conservation of water freed-up by a specific reclamation project would be subject to separate CEQA review.

Mitigation Measures: Mitigation measures for increased development are discussed in Chapters IV and V.

3. Development of New Potable Water Supplies

Methodology and Impacts

Projects that add new potable water supplies may increase Cal-Am's system capacity limit and afford additional water for allocation. Such projects include the District's water supply efforts or efforts of private parties such as Cal-Am. Additionally, land-use development or non-Cal-Am water distribution systems may propose dedication of production facilities to Cal-Am or the District, thus increasing firm yield. Finally, current non-Cal-Am water rights may be permanently extinguished, thus increasing the firm yield available to Cal-Am.

An example will illustrate this latter situation. An existing agricultural area supplied with water by one or more private wells drawing from the MPWRS might be proposed for urban development. The creation of any new water distribution system or the extension of an existing system to serve such urban development would be subject to regulation by the MPWMD. Rule 22 (Section C) of the District's *Rules and Regulations* discourages the creation of a new water system in an area that could be served by an existing system. Accordingly, the District could require that the new development obtain water service from Cal-Am. In some of these cases, the existing water rights for the agricultural use could exceed the amount of water that would be required to serve the new development. The net difference between the existing water rights and the new water for urban development would in effect constitute a new potable supply that could either be preserved as environmental/drought reserve or dedicated to new development.

According to the proposed District policy, water made available through the development of new sources would be "processed" by the District Board following CEQA review. The Board would first determine the magnitude of the new system capacity limit. The Board would then dedicate a portion of the new water to the project sponsor. The balance of the saved water would then be apportioned between environmental/drought reserve and new development at the discretion of the Board. The water available for new development would then be allocated to each jurisdiction at the discretion of the District Board.

Alternatives to the District's proposed policy would be similar to those discussed under reclamation.

Impacts and Mitigation Measures

Generally, the advantages, disadvantages, and impacts of dedication to development and/or conservation of water made available through development of new supplies would be similar to those for reclamation and conservation savings discussed in the previous sections. In this case, however, the total supply of potable water would be increased.

Increased potable water supplies within a jurisdiction or within the Cal-Am service area would allow for expansion of the jurisdiction's and the area's housing stock and employment base and provide for the maintenance of the area's irrigated landscape.

If any of the new water is dedicated to new development or intensification of existing uses, however, development-related impacts, such as traffic, would increase. These impacts would vary depending on the amount of new water available, where the water was used, and what types of development were developed with the new water.

If the new water is derived from sources dependent on rainfall/streamflow and is dedicated entirely to new development or intensification of existing uses, then more people and businesses would be exposed to drought risk, including rationing.

If the District retained some or all of the water for environmental/drought reserve above what was required to secure a project fiscal sponsor, this would reduce drought vulnerability, leave more water for the protection of environmental values, and minimize development-related impacts.

The impacts of varying the size of the projects for which water would be subject to District reallocation would depend on whether the additional water (beyond what was required to secure a project fiscal sponsor) was dedicated to new development or intensification or held by the District for environmental/drought reserve.

Impacts: The impacts of dedication to new development and/or conservation of additional water supplies made available through a specific water supply project would be subject to separate CEQA review.

Mitigation Measures: Mitigation measures for increased development are discussed in Chapters IV and V.