

**Submittal by Chino Basin Watermaster (Application 31369) to Santa
Ana River Hearing Closing Workshop May 8, 2007**

07 MAY 7 2007
DIV. OF WATER RIGHTS
SACRAMENTO

Attached to this submittal as Exhibit "A" is a draft proposed permit from Chino Basin Watermaster regarding Application 31369. Watermaster believes it is most expeditious to respond to the questions put to the parties by Mr. Baggett on May 4, 2007, and the written questions from staff dated May 3, 2007, in the context of specific proposed permit terms. Each section below thus refers to the proposed permit in Exhibit "A."

The only question not addressed below is the one question from the May 3, 2007 written list of questions from staff concerning the surface areas and capacities of the underground reservoirs. The Chino Basin is a single underground reservoir. Its surface area is approximately 235 square miles and the capacity is estimated to be approximately seven million acre-feet.

Commentary to Proposed Permit Regarding Application 31369 and Response to Questions

Proposed Permit preamble:

Watermaster's offices are no longer located at the address listed in the Application.

Proposed Permit Term 1 (Source):

The sources listed here are unchanged from those listed in the Application. They are now grouped according to the four primary stream systems because this was the manner of presentation made by Watermaster at the May 2007 Hearing.

Proposed Permit Term 2 (Points of Diversion):

A series of charts that include a chart of points of diversion are included in the proposed permit as an Addendum¹. These charts are the charts requested by staff in its May 3, 2007 letter to the hearing parties. While not all of these charts will be relevant for the actual final permit, we thought it was more convenient to include them all in one place and so put all of them in the Addendum to the proposed permit.

These points of diversion are unchanged from Application 31369 and, in fact, the charts included here are the same charts as those in Application 31369. The reason for this is that the timing of the filing of Application 31369 occurred fortuitously at the same

¹ These charts are provided here in pdf format because legal counsel was presented with technical difficulties converting the year 2000 spreadsheets into current software. Electronic copies are currently being prepared and will be presented to staff when completed.

time as the development of Watermaster's Recharge Master Plan Phase II Report. Watermaster's Application was filed on September 21, 2000. The Phase II Report was completed and implementation of the project began in 2001. Watermaster's Application was thus based on the same engineering work that went in to the Phase II Report, and this report was the blueprint for the project as built.

Proposed Permit Term 3 (Purpose of Use):

At the time of filing Application 31369, the 2004 Amendments to the Regional Water Quality Control Board's Basin Plan for the Santa Ana Region were not yet contemplated. Since the Basin Plan Amendments (as well as the recycled water recharge permits for the Chino Basin) include the stormwater recharge project as a mitigation measure, Watermaster believes that it would be appropriate to include this use of the water as a listed purpose of use.

Proposed Permit Term 4 (Place of Use):

Unchanged from Watermaster's Application.

Proposed Permit Term 5 (Quantity and Rate of Diversion):

The quantity and rate of diversion expressed here are unchanged from the Application. The proposed permit also includes a specification that any water not recharged will be returned to the channel. This conforms the permit to the actual method of operation of the facilities and, in effect, specifies that to the extent that water is not recharged pursuant to Watermaster's project, that it is treated as it would be under the prior flood control operations regime which acts as the baseline for this project.

Watermaster believes that the amount of 68,500 acre-feet per year, when combined with the 15,000 acre-feet per year of Permit 19895 and the 27,000 acre-feet per year of Permit 20753, for a total of 110,500 acre-feet per year, will be sufficient to allow Watermaster to continue its project as planned. Please note that Watermaster's evidence presented at the May 2007 Hearing, indicated that under current conditions as much as 160,000 acre-feet per year could be available to Watermaster's facilities in a given year and that this amount is projected to increase. Watermaster has limited itself to the cumulative quantity of 110,500 acre-feet per year because this is viewed as a reasonable amount that can be handled by the existing facilities and is an amount that has been demonstrated to be available in 5 out of 50 years (10% of the time). Watermaster believes that with a permit of this amount, implementation of the stormwater recharge project will not be unduly inhibited. However, if at a later time Watermaster determines that this amount is too low and that the storm water recharge project is being burdened by the permit limitation, then it reserves the right to file a supplemental application.

While Watermaster believes that the quantities, rates and distribution of the water throughout the facilities of the Basin as described in each of the permits are realistic, the full project has only been in operation for a short time and the actual operational features

of the project are still being discovered. If at a later time it is necessary to revise any of the rates of diversion or distribution of the water between points of diversion, Watermaster will file a change petition with the SWRCB.

The season of appropriation is described as year round as requested in the Application. There is no benefit to a limited season of use, and a year round period allows Watermaster to capture out of season storms and urban runoff that makes no contribution to public trust resources. It also allows flexibility should the storm season begin to alter as predicted due to global climate change.

Proposed Permit Term 6:

Standard permit term from Watermaster's existing permits.

Proposed Permit Term 7 (Licensing):

One of the questions put to the parties by Mr. Baggett concerns the permitting of a flashy and erratic stream system. A full response to this question is included below under the comment to Proposed Permit Term 12. For the reasons stated below, Watermaster does not believe that the erratic nature of the flows in the Chino Basin is a permitting problem for Application 31369 in respect to either public trust issues nor beneficial use issues. Where it does create an issue is with respect to the licensing of the permit. Given the statistical occurrence of the maximum flows Watermaster seeks to appropriate, it could take a decade past the completion of construction in order to appropriate the maximum amount. Rather than put the Chino Basin Watermaster unnecessarily in this difficult position, we recommend that Watermaster be allowed to seek licensing of its permit once it can make a technical demonstration that it has the ability to divert the full amount. In the alternative, Watermaster should be given a lengthy period of development. The proposed permit recommends 50 years as this was the statistical period used by Watermaster in its water availability analysis.

Proposed Permit Term 8:

Standard permit term from Watermaster's existing permits.

Proposed Permit Term 9:

Standard permit term from Watermaster's existing permits.

Proposed Permit Term 10:

Standard permit term from Watermaster's existing permits with modification to account for particular nature and function of Watermaster.

Proposed Permit Term 11:

This term is intended to be responsive to Question #2 provided to the parties by Mr. Baggett at the May 4, 2007 Hearing. Additional information about the remediation responsibilities relating the Chino Basin groundwater anomalies is presented in Exhibit "B" to this submittal.

Proposed Permit Term 12:

Question #1: How should the SWRCB take account of the erratic and "flashy" nature of the Santa Ana Watershed in writing permit terms?

A. Response with Respect to Applicants in General

Prior to the beginning of the formal hearing on this matter, the parties presented the Board with a Stipulation whose purpose was to resolve Key Issues 4 and 5. Because of this Stipulation, there was very little discussion at the hearing concerning the 1969 Judgment and all of the institutional processes that surround it. While the Stipulation was a tremendous benefit to the progress of the hearing, the lack of attention to the 1969 Judgment during the course of the hearing has left the Board with Question #1. At least with respect to the portion of the watershed below Riverside Narrows, incorporation of the Stipulation in to the permits is the answer to Question #1.

The 1969 Judgment and all of the subsequent judgments and agreements that interpret, supplement and implement the 1969 Judgment, were crafted by the local stakeholders in response to the unique conditions in the SAR watershed. They anticipated and accounted for the urbanization of the watershed and the erratic nature of the flows of the River.

The 1969 Judgment includes bypass flows measured at both Riverside Narrows and at Prado Dam. While the flows mandated in the 1969 Judgment are often referenced as absolute numbers, there is actually a complicated process that attends the calculation and accounting of these flows. This process takes account of the erratic nature of the flows of the River. Responsibility for these bypass flows are apportioned among the parties and adjustment provisions are included to account for water quality factors. The calculations involving these factors are carefully administered by the Santa Ana River Watermaster and has been effectively done so for nearly 40 years.

While the SWRCB is not bound by judgments to which it is not a party, it also is not required to simply ignore them. In fact, in the past it has recognized the 1969 Judgment and incorporated it in to permit terms. The Chino Basin Watermaster currently holds two permits to divert stormwater in the Chino Basin. These permits were issued in connection with a specific set of projects involving specific facilities and so only covers a portion of the total amount of water needed by Watermaster, but both of these permits include terms that incorporate the 1969 Judgment in to the permits:

Permit 19895 (Application 28473) Term 14:

14. Rights under this permit are, and shall be, specifically subject to existing rights determined by the judgement in Chino Basin Municipal Water District v. City of Chino, Superior Court, San Bernardino County No. 164327², and the stipulated judgement in Orange County Water District v. City of Chino Case No. 117628, insofar as such adjudicated rights are maintained.

Permit 20753 (Application 28996) Term 13:

13. Rights under this permit are, and shall be, specifically subject to existing rights determined by the judgement in Chino Basin Municipal Water District v. City of Chino, Superior Court, San Bernardino County No. 164327³, and the stipulated judgement in Orange County Water District v. City of Chino Case No. 117628, insofar as such adjudicated rights are maintained.

By incorporation of the Stipulation of the parties in to the permits as requested by the parties, the SWRCB will be able to resolve the issues as stated in Question #1 in a manner that is consistent with its own past practices and in a way that respects the well developed and effective institutional structures in the Santa Ana Watershed as recommended by Mr. Dendy in his testimony.

B. Response Specific to Chino Basin

The incorporation of the Stipulation of the parties into Watermaster's permit is important in order to maintain consistency between the permits. If some portion of Watermaster's rights are subject to the 1969 Judgment by way of permit terms, and another portion is not, it is not clear whether compliance issues with the three permits and the various judgments and agreements will be created. It is likely that by deviating from its past practice, the SWRCB will unnecessarily create uncertainty with respect to Watermaster's rights.

In addition, the question as articulated by Mr. Baggett at the hearing suggested that the question of conditions in Question #1 is motivated by an attempt to properly condition the permits regarding public trust and beneficial use limitations.

However, with respect to Watermaster's project, the unqualified and uncontroverted testimony by all of Watermaster's project-related witnesses is that Watermaster must have the flexibility to divert as much of the water as has requested as possible, in order to beneficially use it. Watermaster has ample storage ability in the

² Case No. 164327 has subsequently been renumbered by the San Bernardino Superior Court as Case No. RCV 51010.

³ Case No. 164327 has subsequently been renumbered by the San Bernardino Superior Court as Case No. RCV 51010.

Chino Basin which allows Watermaster to store water in wet years for use in dry years. Any condition or limitation on Watermaster's diversions limits Watermaster's flexibility and inhibits Watermaster's ability to put the water to beneficial use.

Furthermore, with respect to Watermaster's project, the unqualified and uncontroverted testimony by all of Watermaster's public trust witnesses was that Watermaster's current operations, which involve the unfettered right to utilize stormflows in the Chino Basin pursuant to the 1969 Judgment, have no negative impact whatsoever on public trust resources. During oral testimony these witnesses went further and confirmed the direct implication of this fact that there are no limitations that might be placed on Watermaster that will have any benefit to public trust resources.

There *was* unqualified and uncontroverted testimony however, that limitations placed on Watermaster's ability to divert stormwater will inhibit Watermaster's ability to utilize recycled water and will result in greater dependence on water imported from the Delta.

Any limitations on the Chino Basin Watermaster other than those described in the Stipulation will cause harm to the public interest and will have absolutely no public trust benefits whatsoever.

C. Legal Citations

While the Santa Ana River watershed's flashy hydrology may be unique in relation to the perennial streamflows prevalent in northern California, the issue of high variability of available water is not. The Board has dealt with the issue in its permitting capacity in many past decisions. In addressing the issue, however the Board has not constrained itself from permitting applications in such circumstances.⁴

In its decision 1642, the Board addressed the Monterey County Water Resources Agency's application to increase its storage rights to the entire volume of its Nacimiento Reservoir (it was found that the reservoir's volume was 27,900 af greater than MCWRA's licensed storage amount). (*In the Matter of Application 30532 (2001) SWRCB D-1642.*) The first issue for resolution at hearing was "Is unappropriated water available for appropriation to supply the project described in Application 30532?" The Board found that water was available for the project in eight of the 43 years that the project had been in operation, and that in those eight years there were 611 days when water in storage exceeded the licensed amount. (*Id.*, slip copy at p. 10.) On this basis, the Board found sufficient water available to supply the project. (*Id.*, slip copy at p. 13;

⁴ "The available information relating to the applications and protests points to the conclusion that the flow of the sources from which the applicants seek to appropriate is erratic and uncertain, that unappropriated water nevertheless exists therein frequently and that such water, when it exists, may be taken and used beneficially in the manner proposed by the applicants, without injury to downstream users...the applications should therefore be approved and permits issued, subject to the usual terms and conditions." (*In the matter of Application 16326 by Crossley and Application 16327 by Crossley to appropriate water from two Unnamed Streams tributary to Secret Ravine in Placer County (1958) SWRCB 902, slip copy at p. 10.*)

see also *In the Matter of Application 22980 of Western Lake Properties, Inc., to Appropriate from Big Creek in Tuolumne County* (1968) SWRCB D-1320, slip copy at p. 6 [surplus water would be available in 6 out of 42 years].) In that case, the infrequent availability of water available for appropriation did not preclude the Board from issuing MCWRA a permit.

As the evidence at hearing demonstrated, in order to achieve its average stormwater recharge to groundwater storage, Watermaster must recharge stormwater whenever it is available. The recharge of stormwater functions as just one element in Watermaster's portfolio of water resources. The taking of available water when available, though its reliability may be unpredictable, should be allowed despite the ability to rely on that supply for a firm amount of water in each year. "In a proper case, the Board can approve an application to divert from a source with no firm yield remaining above diversions authorized in existing permits, when there is a reasonable expectation that variations in either the supply or the needs of prior rights will leave unappropriated water in the source in some months or some years, which water the applicant will be able to use, whenever it occurs." (*In the Matter of Application 22980 of Western Lake Properties, Inc., to Appropriate from Big Creek in Tuolumne County* (1968) SWRCB D-1320, slip copy at p. 4)

Proposed Permit Term 13:

This permit term is more rigorous than the standard permit term regarding monitoring because Watermaster's monitoring program is much more extensive than anything normally required. Below is a description of Watermaster's monitoring program as it relates to the Application and in response to the SWRCB's May 3, 2007 written requested re-statement of information. It is a summary from the testimony of Andrew Malone, CBWM Ex. 5-1:

Measurement of Water Diverted to Underground Storage

Many of the recharge basins that can store and recharge water in Chino Basin have been equipped with integrated pressure transducers/data loggers at the basin bottoms. These instruments collect quasi-continuous water-level monitoring data in these basins. This water level data and other information make it possible to estimate: basin inflows by source type; storm water discharge; dry-weather discharge; imported water discharge; outflows by source type; evaporation; discharge by source type, storage of water by source type; and, groundwater recharge.

Measurement of Water Withdrawn from Underground Storage

Since the 1978 Judgment was entered, Watermaster has collected information to develop production estimates. Production estimates in the appropriative pool and overlying non-agricultural pool are based on totalizing in-line flow meter data provided to Watermaster on a quarterly basis by these producers. Watermaster aggregates these quarterly values to obtain annual production for producers in these pools.

Production estimates for the agricultural pool are based in part on totalizing in-line flow meter data, water duty methods, and hour-meter data combined with well efficiency tests. As with the other pools, reporting had been done by the producers. The Watermaster Rules and Regulations require that producers of groundwater in excess of ten (10) acre-feet per year shall install and maintain in good operating condition meters on their well(s). Historically, many agricultural pool wells did not have properly functioning in-line flow meters installed on their discharge pipes, nor did many agricultural pool producers report production estimates to Watermaster on a consistent basis. Watermaster initiated a meter installation program for agricultural pool wells without properly functioning in-line flow meters, and a flow meter reading program.

In the OBMP, it was estimated that up to 600 private wells would need to be equipped with in-line meters. Watermaster staff completed meter installation on the majority of these wells and began reading the meters on a quarterly basis in 2003. Due to the anticipated conversion of land from agricultural to urban uses, some wells were not metered by 2003. As of June 1, 2005, Watermaster counted about 530 active agricultural wells. About 390 of these wells are now equipped with operating inline flow meters. Watermaster installed meters on 30 additional wells during the fiscal year 2005-06. Of the approximately 110 un-metered wells remaining, approximately 65 are wells producing less than 10 acre-feet per year. The other 45 wells have or are anticipated to become inactive within 12 months because of urban development in the southern portion of Chino Basin.

The proposed permit also specifies that any reporting that is required by the State Water Resources Control Board should be directed toward the Santa Ana River Watermaster. All parties currently report to the Santa Ana River Watermaster and it compiles this data into an annual report. It would be most efficient for all parties and for the Board if reporting to the Board was coordinated through the Watermaster.

Proposed Permit Term 14:

Standard permit term taken from Watermaster's existing permits.

Exhibit "A"

[PROPOSED MAY 8, 2007]

State of California

State Water Resources Control Board
DIVISION OF WATER RIGHTS

PERMIT FOR DIVERSION AND USE OF WATER

PERMIT _____

Application 31369 of the Chino Basin Watermaster (9641 San Bernardino Road, Cucamonga, CA) filed on September 21, 2000, has been approved by the State Water Resources Control Board SUBJECT TO VESTED RIGHTS and to the limitations and conditions of this Permit.

Chino Basin Watermaster is hereby authorized to divert and use water as follows:

1. Source:

San Antonio Creek System (including San Antonio Creek and Chino Creek), Cucamonga Creek System (including Cucamonga Creek and Deer Creek), Day Creek System, San Sevaine Creek System (including San Sevaine Creek, and Etiwanda Creek).

All creeks are tributary to the Santa Ana River.

2. Location of Points of Diversion:

SEE ADDENDUM

Counties of San Bernardino and Riverside.

3. Purpose of use:

Recharge to storage in the Chino Groundwater Basin for the purpose of supply augmentation and for blending with recycled water.

End uses of recharged water include:

Irrigation, Stockwatering, Municipal, and Industrial

4. Place of use:

The jurisdictional area of the Chino Basin Watermaster as defined in Exhibit A (by map) and Exhibit K (by legal description) of the stipulated judgment in the case Chino Basin Municipal Water District v. City of Chino, San Bernardino Superior Court Case No. RCV 51010.

5. The water appropriated shall be limited to a quantity of 68,500 acre-feet per year at a maximum rate of 115,570 cubic feet per second distributed throughout the points of diversion as described in the ADDENDUM, year round. Watermaster will make best efforts to recharge all water appropriated into the Chino Groundwater Basin. Any water not recharged into the Chino Groundwater Basin shall be returned to the channel from which it was diverted.
6. The amount authorized for appropriation may be reduced in the license if investigation warrants.
7. Chino Basin Watermaster may request a license to be issued when Watermaster is able to demonstrate that operationally and physically the facilities have the capability to appropriate the full amount of the permit. Such a demonstration shall not depend on an actual appropriation of that amount of water so long as the reason such an appropriation has not occurred is solely because of precipitation conditions. Chino Basin Watermaster shall complete this demonstration within 50 years of the issuance of this permit.
8. Progress reports shall be submitted promptly by Chino Basin Watermaster when requested by the State Water Resources Control Board until a license is issued.
9. Chino Basin Watermaster shall allow representatives of the State Water Resources Control Board and other parties as may be authorized from time to time by said Board, reasonable access to project works to determine compliance with the terms of this permit.
10. Pursuant to California Water Code Sections 100 and 275, and the common law public trust doctrine, all rights and privileges under this permit and under any license issued pursuant thereto, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Resources Control Board in accordance with law and in the public interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.

The continuing authority of the State Water Resources Control Board may be exercised by imposing specific requirements over and above those contained in this permit with a view to eliminating waste of water and to meeting the reasonable water requirements of Chino Basin Watermaster without unreasonable draft on the source. The Chino Basin Watermaster may be required to implement or facilitate the implementation of a water conservation plan, and operating efficient water measuring devices to assure compliance with the quantity limitations of this permit and to determine accurately water use as against reasonable water requirements for the authorized project. It is recognized by this permit that such measures are already underway by the Chino Basin Watermaster, the parties to the stipulated judgment in the case *Chino Basin Municipal Water District v. City of Chino*, San Bernardino Superior Court Case No. RCV 51010, and pursuant to the Chino Basin Watermaster's Optimum Basin Management Program. No action will be

taken pursuant to this paragraph unless the State Water Resources Control Board determines, after notice to the affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the State Water Resources Control Board may be exercised by imposing further limitations on the diversion and use of water by the Chino Basin Watermaster in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the Board determines, after notice to the affected parties and opportunity for hearing, that such action is consistent with California Constitution Article X, section 2; is consistent with the public interest and is necessary to preserve or restore the uses protected by the public trust.

11. The Chino Basin Watermaster shall continue to implement its water quality programs under Program Elements Six (Develop and Implement Cooperative Programs with the Regional Board and Other Agencies to Improve Basin Management) and Seven (Salt Management Program). Chino Basin Watermaster will notify the State Water Resources Control Board of any amendments to these Program Elements. This permit shall be construed to allow the Chino Basin Watermaster to comply with the terms of the 2004 Santa Ana Regional Water Quality Control Board's resolution R802004-0001 that amended the Water Quality Control Plan for the Santa Ana Region with respect to the requirement to recharge stormwater into the groundwater basin and as reflected in permit R8-2005-0033 Water Recycling Requirements for Inland Empire Utilities Agency and Chino Basin Watermaster, Phase I Chino Basin Recycled Water Groundwater Recharge Project, and similar permits that may be issued regarding the recharge of recycled water and as these permits may from time to time be amended.

12. Rights under this permit are, and shall be, specifically subject to the terms of that "Stipulation of the Applicants" on file with the State Water Resources Control Board and made a part of the official record relating to this permit through submission to the State Water Resources Control Board by Watermaster, et al. on April 5, 2007.

13. The Chino Basin Watermaster shall continue to implement its comprehensive monitoring program under Program Element One of the Optimum Basin Management Program and pursuant to the Chino Basin Watermaster's Rules and Regulations. Chino Basin Watermaster will notify the State Water Resources Control Board of any amendment to this Program Element or to the Rules and Regulations. Watermaster shall provide its recharge and production monitoring data to the Santa Ana Watermaster on an annual basis. Watermaster will ensure that if the State Water Resources Control Board requires the reporting of any such data either under this permit or under any license granted based on this permit, that such reporting is provided to the Board by the Santa Ana River Watermaster.

14. This permit is issued and permittee takes it subject to the following provisions of the Water Code:

Section 1390. A permit shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code), but no longer.

Section 1391. Every permit shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a permit is issued takes it subject to the conditions therein expressed.

Section 1392. Every permittee if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefore shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code). In respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of the sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

**ADDENDUM
TO
PROPOSED
PERMIT**

Part 3b of Application - Points of Diversion and Rediversion

Spreading Facility	Basin Type	Diversion Name	Easting ²	Northing ²	Point & Willits	Section	Township	Range	Date and Meridian
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San Antonio Creek System									
Collegia Heights	FB	San Antonio Creek Inlet	6653870	1861326.7	NW 1/4 of	NW 1/4 of	11	01S	08W S.B.B.M.
Upland Basin	FT	Misc Existing Urban Storm Drains	Varies	Varies					
Monicak 1	Bath	San Antonio Creek Inlet Misc Existing Urban Storm Drains	6652040.1 Varies	1855655.9 Varies	NE 1/4 of	NE 1/4 of	15	01S	08W S.B.B.M.
Monicak 2	FT	Outlet from Monicak 1 Misc Existing Urban Storm Drains	6651927.8 Varies	1854446.5 Varies	NE 1/4 of	NE 1/4 of	15	01S	08W S.B.B.M.
Monicak 3	Bath	San Antonio Creek Inlet Outlet from Monicak 2 Misc Existing Urban Storm Drains	6651423.5 6651675.5 Varies	1853334.9 1833370.8 Varies	NW 1/4 of SW 1/4 of	SE 1/4 of NE 1/4 of	15 13	01S	08W S.B.B.M. S.B.B.M.
Monicak 4	FT	Outlet from Monicak 3 Misc Existing Urban Storm Drains	6651331 Varies	1852355.3 Varies	NW 1/4 of	SE 1/4 of	15	01S	08W S.B.B.M.
Brooks	FT	San Antonio Creek Inlet Misc Existing Urban Storm Drains	6647789.6 Varies	1845997.3 Varies	NW 1/4 of	NW 1/4 of	27	01S	08W S.B.B.M.
West Cucamonga Creek System									
8th Street	FT	Misc Existing Urban Storm Drains	6672019.3	1856071.8	NE 1/4 of	NE 1/4 of	17	01S	07W S.B.B.M.
7th Street	FT	Outlet from 8th Street Basin	6672020.7	1854979	NE 1/4 of	NE 1/4 of	17	01S	07W S.B.B.M.
By Basin	FT	West Cucamonga Creek Inlet Misc Existing Urban Storm Drains	6676982.7 Varies	1835570.1 Varies	SW 1/4 of	SE 1/4 of	33	01S	07W S.B.B.M.
Grave Street	FT	Misc Existing Urban Storm Drains	Varies	Varies	SW 1/4 of	SE 1/4 of	33	01S	07W S.B.B.M.
Cucamonga Creek System									
Turner No. 1	FB	Cucamonga Creek Inlet	6682542.5	1850672.8	NW 1/4 of	NE 1/4 of	22	01S	07W S.B.B.M.
Deer Creek System									
Turner No. 2,3,4	Bath	Deer Creek Inlet Outlet from Turner 5BP	6684634.1 Varies	1850133.6 Varies	NE 1/4 of	NE 1/4 of	22	01S	07W S.B.B.M.
Turner No. 5,6,9	Bath	Deer Creek Inlet Misc Existing Urban Storm Drains	6685169 Varies	1850180.3 Varies	NE 1/4 of	NW 1/4 of	23	01S	07W S.B.B.M.
Day Creek System									
Lower Day	Bath	Day Creek Inlet Misc Existing Urban Storm Drains	6700373.3 Varies	1871150 Varies	NE 1/4 of	NE 1/4 of	31	01N	06W S.B.B.M.
Edwards Percolation Ponds (aka Edwards Basin)	FT	Misc Existing Urban Storm Drains	Varies	Varies					
Wineville	FT	Day Creek Inlet Misc Existing Urban Storm Drains	6700368.6 Varies	1858840.8 Varies	SE 1/4 of	NE 1/4 of	31	01S	06W S.B.B.M.
Riverview	FT	Wineville Outlet Misc Existing Urban Storm Drains	6699249.7 Varies	1837568 Varies	SE 1/4 of	NE 1/4 of	31	01S	06W S.B.B.M.
Edwards Creek System									
Edwards Deturb Basin	FT	Outlet from Edwards Spreading Area	6709728	1877535.3	SW 1/4 of	SE 1/4 of	21	01N	06W S.B.B.M.
San Sevaine Creek System									
San Sevaine No. 1	FT	San Sevaine Creek Inlet	6713445.4	1877470.9	NE 1/4 of	NE 1/4 of	27	01N	06W S.B.B.M.
San Sevaine No. 2	FT	Outlet from San Sevaine 1	6715806.1	1876823.8	NE 1/4 of	NE 1/4 of	27	01N	06W S.B.B.M.
Rich Basin	FT	Misc Existing Urban Storm Drains	Varies	Varies					
San Sevaine No. 3	FT	Outlet from Rich Basin Outlet from San Sevaine 2 Misc Existing Urban Storm Drains	6719551.8 6715774.2 Varies	1880432 1876134.1 Varies	SW 1/4 of SE 1/4 of	NE 1/4 of NE 1/4 of	23 27	01N	06W S.B.B.M. S.B.B.M.
San Sevaine No. 4	FT	Outlet from San Sevaine 3	6715757.2	1875988.7	SE 1/4 of	NE 1/4 of	27	01N	06W S.B.B.M.
San Sevaine No. 5	FT	Outlet from San Sevaine 4	6715623.9	1874677.5	SE 1/4 of	NE 1/4 of	27	01N	06W S.B.B.M.
Vicentia Basin	Bath	Inlet from Edwards Creek Misc Existing Urban Storm Drains	6711701.1 Varies	1870738.9 Varies	SW 1/4 of	NW 1/4 of	34	01N	06W S.B.B.M.
Danara Basin	FT	Misc Existing Urban Storm Drains	Varies	Varies					
History Basin	FT	Outlet from Danara Basin	6713257.7	1857972.2	SE 1/4 of	SW 1/4 of	50	01S	06W S.B.B.M.
Mirrup Basin	Bath	Inlet from San Sevaine Channel Misc Existing Urban Storm Drains	6708521.7 Varies	1841430.5 Varies	SW 1/4 of	SE 1/4 of	28	01S	06W S.B.B.M.
Decker Channel System									
Former RP1 Site	FT	Inlet from Decker Channel	6721790.9	1838204.8	SE 1/4 of	NE 1/4 of	35	01S	06W S.B.B.M.
Dedder Basin	FT	Inlet from Dedder Channel	6713190.2	1854901.3	NE 1/4 of	NW 1/4 of	5	02S	06W S.B.B.M.
Totals									

Note 1) - FT is a flow-through basin where all flows are intercepted and conveyed directly into the basin. FB is a flow-by basin where flows are conveyed by other means. Misc. Existing Urban Storm Drains are by flow-through basins by a combination flow-through and flow-by basins.
 Note 2) - Easting/Northing are California State Plane coordinates (1146: Feet, Zone 6, Datum: NAD83)

Attachment 7c to Application and Attachment 2 to Underground Storage Supplement							
Spreading Facility	Part 7c of Application and Part 2 of Underground Storage Supplement -- Diversion Works						
	Diversion Name ¹	Conduit	Material	Cross Sectional Dimensions	Length (ft)	Total Lift or Fall (ft)	Capacity (cfs)
San Antonio Creek System							
College Heights	San Antonio Creek Inlet	3 - 5' x 5' reinforced concrete culvert		150' long, 2% slope			290
Upland Basin	Misc Existing Urban Storm Drains			varies			690
Montclair 1	San Antonio Creek Inlet	48" reinforced concrete pipe		80' long, 2% slope			290
	Misc Existing Urban Storm Drains			varies			1,110
Montclair 2	Outlet from Montclair 1	Concrete spillway					1,520
	Misc Existing Urban Storm Drains			varies			300
Montclair 3	San Antonio Creek Inlet	3 - 5' x 5' reinforced concrete culvert		150' long, 2% slope			290
	Outlet from Montclair 2	Concrete spillway					1,800
	Misc Existing Urban Storm Drains			varies			300
Montclair 4	Outlet from Montclair 3	Concrete spillway					2,670
	Misc Existing Urban Storm Drains			varies			330
Brooks	San Antonio Creek Inlet	Trapezoidal channel, $b = 4'$, $z = 1$, $d = 6'$, 5% slope, diverted completely					0
	Misc Existing Urban Storm Drains			varies			1,850
West Cucamonga Creek System							
8th Street	Misc Existing Urban Storm Drains			varies			2,910
7th Street	Outlet from 8th Street Basin	50' wide spillway to 3 - 10' x 5' reinforced concrete culvert		110' long			0
Ely Basin	West Cucamonga Creek Inlet	Trapezoidal channel, $b = 15'$, $z = 1$, $d = 1.5'$, 5% slope, diverted completely					2,380
	Misc Existing Urban Storm Drains			varies			1,150
Grove Street	Misc Existing Urban Storm Drains			varies			1,140
Cucamonga Creek System							
Turner No. 1	Cucamonga Creek Inlet	8' x 4' reinforced concrete culvert		40' long, 5% slope			310
Deer Creek System							
Turner No. 2, 3, 4	Deer Creek Inlet	3 - 5' x 5' reinforced concrete culvert		150' long, 2% slope			330
	Outlet from Turner 5&9						320
Turner No. 5, 8, 9	Deer Creek Inlet	3 - 5' x 5' reinforced concrete culvert		150' long, 2% slope			300
	Misc Existing Urban Storm Drains			varies			
Day Creek System							
Lower Day	Day Creek Inlet	96" reinforced concrete pipe		360' long, 4% slope			90
	Misc Existing Urban Storm Drains			varies			
Edwards Percolation Ponds (aka Edwards Basin)							
Wineville	Day Creek Inlet	60' wide concrete channel diverted completely into basin					10,980
	Misc Existing Urban Storm Drains			varies			1,020
Riverside	Wineville Outlet	104' wide spillway to 72" RCP diverted completely into basin					3,490
	Misc Existing Urban Storm Drains			varies			750
Edwards Creek System							
Edwards Debris Basin	Outlet from Edwards Spreading Area	Natural channel diverted completely through basin					4,620
San Sevaine Creek System							
San Sevaine No. 1	San Sevaine Creek Inlet	Natural channel diverted completely through basin					6,750
San Sevaine No. 2	Outlet from San Sevaine 1	130' wide spillway					6,630
Rick Basin	Misc Existing Urban Storm Drains			varies			3,420
San Sevaine No. 3	Outlet from Rick Basin	Concrete channel diverted completely into basin					3,390
	Outlet from San Sevaine 2	130' wide spillway					5,600
	Misc Existing Urban Storm Drains			varies			1,020
San Sevaine No. 4	Outlet from San Sevaine 3	150' wide spillway					10,830
San Sevaine No. 5	Outlet from San Sevaine 4	150' wide spillway					10,800
Viccola Basin	Inlet from Edwards Creek	2 - 5' x 5' reinforced concrete culvert		120' long, 2% slope			80
	Misc Existing Urban Storm Drains			varies			660
Danaoa Basin	Misc Existing Urban Storm Drains			varies			1,250
Hickory Basin	Outlet from Danaoa Basin			varies			1,200
Jurupo Basin	Inlet from San Sevaine Channel	3 - 5' x 5' reinforced concrete culvert		150' long, 2% slope			360
	Misc Existing Urban Storm Drains			varies			2,640
Decker Channel System							
Farmer RPS Site	Inlet from Decker Channel	25' wide concrete channel diverted completely into basin					3,300
Decker Basin	Inlet from Decker Channel	25' wide concrete channel diverted completely into basin					3,240
Totals							

Note 1.1) - Miscellaneous areas that are covered with riprap concrete base, reinforced concrete pipe, and reinforced metal sheet pile various dimensions and capacities and directed storm drainage to Day Basin.

		Attachment 1 Underground Storage Supplement		
Spreading Facility	Part 1 of Underground Storage Supplement			
	Stormwater Recharge		Recycled Water Recharge	
	Maximum Rate of Diversion (cfs)	Maximum Annual Amount (acre-ft/yr)	Maximum Rate of Diversion (cfs)	Maximum Annual Amount (acre-ft/yr)
San Antonio Creek System				
College Heights	290	420		
Upland Basin	690	2,500	2	900
Monclair 1	1,450	1,670	5	1,700
Monclair 2	2,220	1,300	7	2,350
Monclair 3	2,390	680	3	350
Monclair 4	2,400	1,070		
Brooks	1,650	1,660	4	1,100
West Cucamonga Creek System				
8th Street	2,910	2,680	19	5,000
7th Street	2,800	170		
Ely Basin	6,030	5,770	7	2,500
Grave Street	1,140	1,530	3	1,000
Cucamonga Creek System				
Turner No. 1	310	1,210		
Deer Creek System				
Turner No. 2,3,4	650	2,490	4	1,500
Turner No. 5,8,9	630	3,780	4	1,500
Day Creek System				
Lower Day	140	920		
Eliwanda Pertolukan Ponds (aka Eliwanda Basins)				
Wineville	12,000	4,100	12	4,300
Riverside	4,440	4,800		
Eliwanda Creek System				
Eliwanda Debris Basin	4,600	2,300		
San Sevaine Creek System				
San Sevaine No. 1	6,750	1,800		
San Sevaine No. 2	6,630	250		
Rich Basin	1,420	1,340		
San Sevaine No. 3	11,010	1,760		
San Sevaine No. 4	10,830	300		
San Sevaine No. 5	10,800	500		
Victoria Basin	740	2,050		
Barrens Basin	1,230	1,580		
Hickory Basin	1,200	1,980	3	1,200
Jeropa Basin	3,930	7,600		
Decker Channel System				
Former RPS Site	3,300	3,373		
Decker Basin	2,240	1,787		
Total	115,570	68,500	79	28,500

Attachment 3 to Underground Storage Supplement				
Spreading Facility	Parts 3, 4 and 5 of Underground Storage Supplement			
	Spreading Area (acres)	Depth to Groundwater ¹		
		Current Estimate 1997 (ft)	Historic Maximum 1977 (ft)	Historic Minimum 1933 (ft)
San Antonio Creek System				
College Heights	10	650	675	500
Upland Basin	32	620	635	470
Monticlar 1	6	600	620	440
Monticlar 2	13	550	550	370
Monticlar 3	5	525	525	350
Monticlar 4	8	480	480	305
Brooks	14	340	380	182
West Cucamonga Creek System				
8th Street	19	490	515	420
7th Street	8	475	450	380
Ely Basin	43	250	260	140
Grove Street	17	155	175	65
Cucamonga Creek System				
Turner No. 1	20	370	370	255
Deer Creek System				
Turner No. 2, 3, 4	30	360	360	245
Turner No. 5, 6, 8	24	330	355	235
Day Creek System				
Lower Day		500	> 500	375
	38			
Edwanda Percolation Ponds Jaka Edwanda Basin²				
Wineville	20	320	330	245
Riverside	70	220	235	150
	99	185	200	130
Edwanda Creek System				
Edwanda Detention Basin	40	390	400	290
San Sevaine Creek System				
San Sevaine No. 1	20	400	> 400	290
San Sevaine No. 2	12	420	> 420	310
Rich Basin	8	260	> 260	150
San Sevaine No. 3	12	440	> 440	330
San Sevaine No. 4	6	460	> 460	350
San Sevaine No. 5	127	475	> 475	350
Victoria Basin	15	525	> 525	430
Banana Basin	3	420	425	350
Hickory Basin	11	405	410	335
Nutina Basin	50	320	330	195
Orchard Channel System				
Farmer AP3 Site	30	200	220	135
Dorcas Basin	9	155	155	75
Total				
(Note 1) - Estimated at completion of each spreading basin				

Exhibit "B"

Plume: Chino Airport

Character: VOCs

Remediation Status: Subject of RWQCB Cleanup and Abatement Order 90-134. Plume is currently being characterized and a draft remediation plan is expected by the end of 2007.

Oversight Agency: RWQCB

Plume: California Institute for Men

Character: VOCs

Remediation Status: Subject of RWQCB Cleanup and Abatement Order¹. Plume has been characterized and is currently being remediated.

Oversight Agency: RWQCB

Plume: General Electric Flatiron Facility

Character: VOCs

Remediation Status: General Electric, who is voluntarily performing the cleanup, has been working with the RWQCB to remediate the groundwater contamination. No Cleanup and Abatement Order has as of yet been issued. Plume is characterized and remediation is in place to contain it.

Oversight Agency: RWQCB

Plume: General Electric Test Cell Facility

Character: VOCs

Remediation Status: Subject to Hazardous Materials Division of San Bernardino County Environmental Health Services and the DTSC Docket Numbers 88/89-009C0 and 97/98-014, respectively, for soil remediation. Closure was requested on May 11, 2004 with regard to the soil remediation. General Electric, who is voluntarily performing the cleanup, has been working with the RWQCB for the past 8 years, to characterize and remediate the groundwater contamination. No Cleanup and Abatement Order has been issued. The plume is characterized and a draft remediation plan has been submitted to the RWQCB.

Oversight Agencies: San Bernardino County; DTSC; RWQCB

Plume: Kaiser Steel Fontana Site

Character: TDS/TOC

Remediation Status: Subject of RWQCB Cleanup and Abatement Order 87-121, as amended by Order 91-40. Thereafter, Kaiser and the RWQCB entered into a 1993 settlement agreement whereby Kaiser is required to mitigate any adverse impacts caused by its plume on existing and otherwise useable municipal wells. Pursuant to the settlement, the RWQCB rescinded its earlier order 91-40 and Kaiser was granted capacity in the Chino II Desalter to intercept and remove the Kaiser plume from the Chino Basin.

Oversight Agency: RWQCB

¹ The precise identification of this Cleanup and Abatement Order could not be determined prior to filing this information, but will be provided when determined.

Plume: Milliken Sanitary Landfill

Character: VOCs

Remediation Status: Subject of RWQCB Order No. 81-003. Plume has been characterized and no active remediation plan has been developed.

Oversight Agency: RWQCB

Plume: Upland Sanitary Landfill

Character: VOCs

Remediation Status: The closed Upland Landfill is regulated under RWQCB Order No 98-99-07 dated Dec. 7, 1998. In a compliance with the Order, a Post-Closure Monitoring and Maintenance Plan (PCMMP) has been prepared and submitted. The PCMMP was revised in 2001, after completion of the final cover improvements, and is currently in place.

Oversight Agency: RWQCB

Plume: Ontario International Airport (VOC Anomaly – South of Ontario Airport)

Character: VOC

Remediation Status: The plume is currently being voluntarily investigated by a group of potentially responsible parties including Boeing, Aerojet, Northrop Grumman, General Electric and the Department of Defense. Investigative or Cleanup and Abatement Orders will likely be issued in the future. Watermaster is assisting the RWQCB in its preparation of these orders. The remediation of the plume will then likely be accomplished through existing Chino Basin Desalter I facilities, owned by the Chino Desalter Authority.

Oversight Agency: RWQCB.

Plume: Stringfellow NPL Site

Character: VOCs, perchlorate, NDMA, heavy metals

Remediation Status: The Stringfellow Site is the subject of USEPA Records of Decision EPA/ROD/R09-84/007, EPA/ROD/R09-83/005, EPA/ROD/R09-87/016, and EPA/ROD/R09-90/048. Pursuant to these decisions, the original disposal area is sealed; remediation is in progress focusing on source control, installation of pretreatment facilities and groundwater cleanup. There are approximately 70 extraction wells throughout the length of the plume that have been effective in stopping plume migration and removing contamination. DTSC assumed responsibility for the cleanup of the site in 2001. DTSC is currently conducting a supplemental feasibility study to address, in particular, soil remediation in the source area. This study will form the basis for decisions about long term remedies for the site. A risk investigation/feasibility study that is currently being conducted for perchlorate will result in a fifth USEPA Record of Decision. The RWQCB originally initiated orders and studies in the 1970s and 1980s, and gives input as a stakeholder, but the Records of Decision direct clean-up.

Oversight Agencies: USEPA; DTSC; RWQCB