INDEX OF EXHIBITS IN SUPPORT OF
CHEVRON'S PETITION FOR REVIEW OF
REVISED CLEANUP AND ABATEMENT ORDER NO. R9-2009-0124
FOR CHEVRON SERVICE STATION NO. 9-3417
32001 CAMINO CAPISTRANO, CALIFORNIA

TAB	DESCRIPTION
1.	Declaration of Natasha Molla
2.	Relevant excerpts from February 5, 2008 City Council meeting minutes and status report
3.	Relevant excerpts from September 2007 Groundwater Assessment Study
4.	November 17, 2008 press release
5.	Relevant excerpts from March 25, 2008 Water Advisory Commission Agenda Report
6.	Relevant excerpts from May 27, 2008 Water Advisory Commission Agenda Report
7.	Relevant excerpts from October 27, 2009 Utilities Commission Staff Report
8.	February 4, 2008 letter from County of Orange Health Care Agency re: Interim Remedial Action Plan
9.	Relevant excerpts from January 22, 2008 Water Advisory Commission meeting minutes
10.	January 24, 2008 press release
11.	Relevant excerpts from April 1, 2008 City Council meeting minutes and transcript
12.	February 26, 2008 Water Advisory Commission transcript
13.	February 26, 2008 Water Advisory Commission meeting minutes
14.	Relevant excerpts from March 18, 2008 City Council meeting transcript
15.	Analytical reports for well samples
16.	January 6, 2009 letter from Natasha Molla re: Response to the City of San Juan Capistrano's November 24, 2008 Letter

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TAB	DESCRIPTION
17.	April 23, 2009 letter from Natasha Molla re: Response to the City of San Juan Capistrano's Letter Protesting the Corrective Action Plan Submitted by Chevron on February 17, 2009; April 6, 2009 letter from Craig Carlisle re Response to Protest Letter Dated March 17, 2009, Chevron Corrective Action Plan
18.	May 11, 2009 letter from Holguin, Fahan & Associates re: Response to Orange County Local Oversight Program's Review of the Correction Action Plan for Chevron Products Company Service Station #9-3417
19.	Relevant excerpts from May 6, 2008 City Council meeting minutes and transcript
20.	Article from October 23 - November 12, 2009 edition of The Capistrano Dispatch titled, "What Chevron Won't Tell You"
21.	Relevant excerpts from September 23, 2008 Water Advisory Commission meeting minutes and transcript
22.	May 14, 2008 letter from the County of Orange Health Care Agency re: March 26, 2008 Interim Remedial Action Plan
23.	August 27, 2008 e-mail from Natasha Molla re: Preliminary PDR document
24.	October 30, 2008 letter from Natasha Molla re: 60% Drawing and Specifications and Comment Table Addressing PDR as part of IRAP Implementation
25.	Relevant excerpts from October 7, 2008 City Council meeting minutes and transcript
26.	October 31, 2008 e-mail from John O'Donnell re: Draft Notice of Exemption
27.	Relevant excerpts from July 22, 2008 Water Advisory Commission meeting minutes and transcript
28.	Relevant excerpts from August 5, 2008 City Council meeting minutes and transcript

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ATTORNEYS FOR PETITIONER
CHEVRON U.S.A. INC.

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

In Re:	No.
SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD REVISED CLEANUP AND ABATEMENT ORDER REGARDING CHEVRON SERVICE STATION NO. 9-3417, 32009 CAMINO CAPISTRANO, SAN JUAN CAPISTRANO, CALIFORNIA	DECLARATION OF NATASHA MOLLA IN SUPPORT OF CHEVRON'S PETITION FOR REVIEW OF REVISED CLEANUP AND ABATEMENT ORDER NO. R9-2009-0124; REQUEST FOR ABEYANCE; AND REQUEST FOR STAY [TO605902379:bpulver]

I, Natasha Molla, declare:

1. I am the Team Lead, Retail and C&I-Southwest for Chevron Environmental Management Company ("CEMC"), which provides certain environmental liability management and consulting services for Chevron U.S.A. Inc. ("Chevron").

2. I have personal knowledge of the facts set forth in this Declaration and could and would competently testify to them if called upon to do so.

3. Since October 2006, I have been closely involved with the investigation and remediation of contamination related to discharges from Chevron Service Station No. 9-3417, 32001 Camino Capistrano, San Juan Capistrano, California (the "Site"). CEMC is the

EXHIBIT 1

organization within Chevron that manages its environmental liabilities with respect to the Site and ensures that Chevron manages the cleanup of soil and groundwater appropriately.

4. As part of my job responsibilities, I have participated in meetings regarding the investigation and remediation of contamination related to the Site.

5. In 2006, after several years of remediation and investigation at the Site, Chevron learned of the City's installation of six groundwater recovery wells in the area, including the Dance Hall Well approximately 2,000 feet downgradient of the Site. In 2007, Chevron contacted both the OCLOP and the City about this finding. Up until this time, the MTBE plume had appeared stable based on monitoring data, but the operation of these groundwater recovery wells caused the plume to begin to migrate towards the well field.

6. Since February 2007, representatives of Chevron, including myself, have met with representatives of the City of San Juan Capistrano (the "City") and its consultants, on a frequent and regular basis. In addition, since May 2007, Chevron has provided the Water Advisory Commission and the City Council with status updates at many of their regularly scheduled meetings.

7. In January 2008, the City detected concentrations of MTBE at the Dance Hall Well ranging from 1.0 to 1.2 micrograms per liter ("µg/L"), which is far below 13 µg/L, the government standard set for human health and safety. Chevron has advised the City several times to continue pumping the Dance Hall Well to prevent the MTBE plume from migrating beyond the well.

8. On February 4, 2008, the Orange County Local Oversight Program ("OCLOP") directed Chevron to submit an Interim Remedial Action Plan ("IRAP") to remediate the MTBE plume originating from the Site.

9. On March 12, 2008, Chevron met with the City of San Juan Capistrano ("City") to discuss using its Dance Hall Well to capture and remediate the downgradient extent of the plume. In this meeting, Chevron proposed a conceptual design for a treatment system that would use granulated activated carbon ("GAC") filters to remove MTBE from groundwater produced at the Dance Hall Well, with a greensand filter to remove iron from the groundwater to

reduce fouling of the GAC filter. Following treatment, the produced water would be returned to the Groundwater Recovery Plant operated by the City. The City agreed with the wellhead treatment conceptual design.

10. On March 18, 2008, Chevron received approval from the City to access the Dance Hall Well to conduct an aquifer test to evaluate the effectiveness of the Dance Hall Well in capturing the MTBE plume. The results of the aquifer test indicated that in order to capture the MTBE plume, the Dance Hall Well would need to be pumped as continuously as possible (outside of limited periods of necessary downtime for maintenance and repairs), at a certain minimum capacity.

11. On March 26, 2008, Chevron submitted its IRAP to the OCLOP, which proposed remediation of the downgradient edge of the MTBE plume by pumping and treating groundwater at the City's Dance Hall Well, using a wellhead treatment system as discussed with the City.

12. On May 14, 2008, the OCLOP accepted the IRAP.

13. Chevron's contractor would install the wellhead treatment system proposed in the IRAP and assist the City in training its operators, and Chevron would pay associated monitoring costs, but the City itself would operate and maintain the wellhead treatment system as part of its operation of the Groundwater Recovery Plant.

14. Chevron continued to communicate frequently with the City, its agents, and consultants after the OCLOP accepted the IRAP in order to obtain the City's input for the development of the preliminary design for the proposed wellhead treatment system. These communications included meetings on June 13, 2008, July 14, 2008, July 21, 2008, and August 1, 2008, as well as numerous telephone calls. These meetings and communications were in addition to the status updates provided to the Water Advisory Commission and the City Council at their regularly scheduled meetings.

15. On August 27, 2008, Chevron sent the City a draft Preliminary Design Report and solicited its comments.

16. In September 2008 and October 2008, Chevron continued to meet with the City to obtain its input into the development of the wellhead treatment system design, and the City and Chevron planned to implement the system the following February.

17. On October 6, 2008, Chevron received and incorporated the City's comments on the Preliminary Design Report. On October 14, 2008, Chevron presented the Preliminary Modeling Report to the City and the OCLOP.

18. To be effective at capturing and remediating the MTBE plume, the wellhead treatment system needs to meet minimum operating standards. Groundwater pumped from the Dance Hall Well should be treated through the wellhead treatment system. The Dance Hall Well should be operated, at a minimum, at the rate of at least 850 gpm or at the rate the aquifer and treatment system can sustain. The Dance Hall Well should also be operated as continuously as possible, downtime for maintenance should not exceed 25 days at anytime, and the treatment system should operate for a minimum of 25 days between periods of downtime.

19. On October 30, 2008, Chevron submitted the preliminary design for the wellhead treatment system (the "60% design") to the OCLOP. Chevron also provided a copy of the 60% design to the City and solicited further input. The City's Community Development Department provided comments on the 60% design, which Chevron addressed.

20. On October 31, 2008, the City provided Chevron with a Draft Notice of Exemption from the California Environmental Quality Act.

21. Based on these meetings and the City's input, in December 2008, Chevron proceeded to develop the final design (the "100% design") for the wellhead treatment system, began procuring materials, and contracted with contractors for the construction of the wellhead treatment system to start in February 2009, subject to confirmatory geotechnical work to be completed before constructing pilings and foundations. Chevron has requested, but not received, written comments on the final design from the City's engineering staff.

22. Chevron was ready to begin construction of the wellhead treatment system in February 2009, but the City denied Chevron access. Because of this delay imposed by the

City, Chevron put subcontractors on hold and put the greensand filter in storage. Also, necessary geotechnical testing has not been completed due to the City's unwillingness to allow site access.

23. The City did not raise any objections to the design for the wellhead treatment system until August 2009, approximately six months after the proposed time for installation of the system, at which time the City's attorney verbally provided engineering comments on the 60% design and suggested that the entire design needs to be re-done at Chevron's expense.

24. Accommodating the proposed revisions would require changes to the system design, additional review, and delayed procurement schedules, and thus would extend the time for installation of the wellhead treatment system beyond the time it would take for the 100% design.

25. On September 16, 2009, Chevron met with the California Regional Water Quality Control Board, San Diego Region ("Regional Board") to discuss Chevron's concerns regarding Cleanup and Abatement Order R9-2009-0124 ("CAO") issued by the Regional Board on September 3, 2009. In that meeting, Chevron explained that it would be impossible to meet the deadlines contained in Directive B of the CAO, and that Chevron's estimates of the most realistic dates for the start of construction and to achieve full-scale operations were December 15, 2009, and April 14, 2010, respectively. These estimates were based on the assumptions that Chevron: (1) would have the City's cooperation to access the Dance Hall Well by September 21, 2009, and (2) could begin implementation of the existing 100% design immediately on that date, with no design changes. As neither assumption has come to pass, these estimated dates are no longer feasible. Chevron also informed the Regional Board that once installed, the treatment system and associated greensand filter would be an integral part of the GWRP, and while Chevron's contractor will assist the City in training its operators, and Chevron will pay associated monitoring costs, the City itself would be responsible for the operation and maintenance of the treatment system. Accordingly, Chevron requested that the Regional Board direct the City to comply with minimal operational criteria for the Dance Hall Well and

treatment system, and that the City be responsible for preparing the operations and maintenance plan.

26. On September 29, 2009, Chevron again met with the Regional Board. In this meeting, Chevron informed the Regional Board that the City still had not granted access to the Dance Hall Well, and that Chevron could not meet the Directive B deadlines given the City's failure to allow access by September 21, 2009. Chevron confirmed that it was prepared to move forward with implementing the IRAP, but that it would take approximately seven months from the City's grant of access to the Dance Hall Well to do so using the existing 100% design. Chevron requested that the Regional Board include the following force majeure provision to protect against future obstruction by the City:

> The Regional Board acknowledges and agrees that implementation of the interim remedial action and other matters relating to the cleanup and abatement of the discharge depends upon the willingness of the City to cooperate with the requirements set forth in the CAO. As such, Chevron's ability to meet the deadlines set forth herein is conditioned upon the City's compliance with the CAO. To the extent that Chevron has used its best efforts to meet the deadlines and is unable to do so due to matters beyond its reasonable control, including the City's unwillingness to permit Chevron access to the Dance Hall Well, the GWRP, and related City property, the time for completion shall be extended for a period commensurate with the delay.

Chevron also requested the Regional Board allow Chevron to implement an alternate remedy, such as that proposed in Chevron's June 29, 2009 Work Plan for Pumping Test, which involves a line of low-volume, downgradient extraction wells to remediate the dissolved downgradient portion of the MTBE plume, in lieu of the IRAP, if the City fails to grant Chevron access to the Dance Hall Well.

27. Chevron has been talking with the City about putting a wellhead treatment system on the Dance Hall Well for over two years, yet to date, the City has not provided access to allow Chevron to install the system.

MINUTES
FEBRUARY 5, 2008
SAN JUAN CAPISTRANO CITY COUNCIL REGULAR MEETING

CLOSED SESSION

Mayor Soto called the Closed Session of the City Council of the City of San Juan Capistrano to order at 5:30 p.m. in the City Council Chamber.

ROLL CALL

COUNCIL MEMBERS PRESENT: Sam Allevato, Tom Hribar, Dr. Londres Uso, Mayor pro tem Mark Nielsen and Mayor Joe Soto

COUNCIL MEMBERS ABSENT: None

STAFF PRESENT: Dave Adams, City Manager; Cynthia L. Russell, Assistant City Manager; Omar Sandoval, City Attorney; Meg Monahan, City Clerk

CLOSED SESSION (610.85)

A Closed Session was held for the following purpose, as authorized by statute:

1. Pursuant to Government Code Section 54956.8, the City Council conferred with its real property negotiator (City Manager) regarding a review of price and terms of potential acquisition of Assessor's Parcels 121-070-66; 121-050-16; 649-491-29; 649-491-30; 649-451-52; 649-451-53; 649-451-54; 649-451-55; 649-421-02; 649-421-03; 649-421-04 located generally in the northwest area of the City between Trabuco and Oso Creeks and the western City limit. The property owner is J.F. Shea Co.

2. Pursuant to Government Code Section 54956.9(c), the City Council conferred with its legal counsel regarding one potential case.

3. Pursuant to Government Code Section 54956.9(a), the City Council conferred with its legal counsel regarding the status of Save Our San Juan vs. City of San Juan Capistrano.

Mayor Soto invited the public to provide comment. There was no public comment and the meeting was moved to Closed Session chambers.

RECESS UNTIL 6:30 P.M.

EXHIBIT 2

BUSINESS SESSION

Mayor Soto called the Regular Meeting of the City Council of the City of San Juan Capistrano to order at 6:34 p.m. in the City Council Chamber. Boy Scout Troup 724 led the pledge of allegiance; and Council Member Nielsen gave the invocation. Mayor Soto dedicated the meeting in memory of Mr. Wilson Buckner, an outstanding community member who made many contributions to the City of San Juan Capistrano.

ROLL CALL

COUNCIL MEMBERS PRESENT: Sam Allevato (depart at 10:20 p.m.), Tom Hribar, Dr. Londres Uso, Mayor pro tem Mark Nielsen and Mayor Joe Soto

COUNCIL MEMBERS ABSENT: None

STAFF PRESENT: Dave Adams, City Manager; Cynthia L. Russell, Assistant City Manager; Omar Sandoval, City Attorney; Maria Morris, Deputy City Clerk; Steven A. Apple, Planning Director; Nasser Abbaszadeh, Engineering & Building Director; Karen Crocker, Community Services Director; Lt. Mike Betzler, Chief of Police Services; Grant Taylor, Assistant Planning Director; Douglas D. Dumhart, Economic Development Manager; Ziad Mazboudi, Senior Civil Engineer; Eric Bauman, Water Services Manager; Michael Cantor, Senior Management Analyst; and Eileen White, Recording Secretary.

Agenda items are presented in the originally agendized format for the benefit of the minutes' reader, but were not necessarily heard in that order.

ANNOUNCEMENT OF CLOSED SESSION ACTIONS - None

CITY COUNCIL COMMENTS AND ORAL REPORTS

Council Member Allevato reported his upcoming Coastal Commission meeting to be held at Del Mar fairgrounds in regard to the toll road extension proposal; listed the benefits the extension will provide; and corrected information distributed by opponents.

Council Member Hribar reported the installation of a solar system at his home; and attendance at the Mission Employees Recognition Luncheon, Water Conservation Workshop, Boys & Girls Club Youth of the Year event, and the CARE car show.

Council Member Uso reported attending the Government Affairs reception; meeting with representatives from Distrito La Novia/Meadows projects; volunteering at Habitat for Humanity event; and meeting with attorney in regard to increasing the Redevelopment programs. In addition he reported a luncheon with school officials; meeting with Trolley

Mayor Soto recommended Council review the staff report for this item and contact staff if they have any questions. There was no oral presentation provided prior to the continuation of this item.

Council Action: Moved by Mayor Soto, seconded by Council Member Uso and carried unanimously, 4-0, with Council Member Allevato absent, to continue Review of Status of City Council Priorities for Fiscal Year 2006/2007 and Consideration of Workload and Budgetary Priorities for Fiscal Year 2008/2009 to the February 19, 2008, meeting.

G2. PUBLIC WORKS DIRECTOR

a. REVIEW AND EVALUATION OF MTBE TESTING AND REMEDIATION BEING CONDUCTED BY CHEVRON STATUS REPORT RECEIVED; AND STAFF TO PROVIDE AN UPDATE EVERY 30 DAYS. (530.25)

Description: In March 2007 the Orange County Health Care Agency (OCHCA) notified the City that there had been a release of Methyl Tertiary Butyl Ether (MTBE) from Chevron gas stations at two sites, and identified Chevron as the responsible party for both releases. In October 2007, Council approved an agreement with PSOMAS to provide professional expertise and oversight for the ongoing testing and analysis being undertaken by Chevron at the direction of OCHCA. The two wells affected by the MTBE release are the Ground Water Recovery Plant's (GWRP) Dance Hall Well and the Tirador Well. Although the trace amounts of MTBE detected at the wells are below the primary and secondary standards, the wells have been shut down as a precautionary measure. Staff recommended Council review and discuss the information presented by Chevron, City staff, and the City's consultant, PSOMAS; and by motion, direct staff to provide regular updates to the City Council approximately every 60 days at a regular City Council meeting.

Written Communications: Report dated February 5, 2008, by Cindy Russell, Assistant City Manager.

Presentations:

Cindy Russell, Assistant City Manager, reviewed the status report.

Michael Donovan and John Thornton, representing PSOMAS, narrated a slide presentation entitled "Update on Chevron Stations;" reviewed MTBE testing procedures, minimums, and usage history; discussed clean up methods; listed the other agencies that may be involved in treatment procedures if the MTBE is found in streambeds; and addressed inaccuracies in the Chevron report.

Natasha Molla, representing Chevron, narrated a slide presentation indicating potential options being considered to treat the affected sites; discussed test

modeling parameters; summarized OCHCA testing guidelines, discussed difficulties Chevron is encountering in its efforts to access private properties; and noted Chevron's intention to perform the work at night and minimize traffic disruptions. She described the route the MTBE is expected to follow, recommended the City speak to cities that have experienced MTBE contamination in the past, and discussed factors contributing to fluctuating data.

Jack Frame, representing Chevron, discussed Chevron data collection methods, clean up alternatives, and MTBE flow levels.

Council Comment:

Council Members acknowledged the importance of contracting with PSOMAS as a secondary check on the water status, supported the decision to close the wells as a precautionary measure; and expressed disappointment with Chevron concerning the slow progression of the MTBE detection process, reaction to the situation, and lack of timely progress reports. They requested Chevron act quickly and efficiently to resolve the issue, keep the City informed monthly as to their progress, give private property owners what they need to expedite the process, and work diligently to avoid as much as possible any traffic disruption on Del Obispo.

Council Action: No action required. Staff directed to provide monthly updates at regular meetings.

Council Member Allevato left the meeting at 10:20 p.m.

ORDINANCES - None

COUNCILMANIC ITEMS

1. Council Member Hribar proposed the adoption of a resolution at a future City Council meeting to express discontent in recent actions from the City of Berkeley's City Council decision of telling the U.S. Marines that their downtown recruiting station is not welcomed. Council Members Uso and Allevato, Mayor pro tem Nielsen and Mayor Soto, concurred that a resolution be brought back.

ADJOURNMENT

There being no further business, Mayor Soto adjourned the meeting at 11:40 p.m. to Tuesday, February 19, 2008, at 5:30 p.m. for Closed Session and 6:30 p.m. for the Public Business Session in the City Council Chamber.

Respectfully submitted,

_____

MARIA MORRIS, DEPUTY CITY CLERK

Approved: March 4, 2008

ATTEST:

_____

JOE SOTO, MAYOR

2/5/2008

G 2a

AGENDA ITEM

TO: Dave Adams, City Manager

FROM: Cindy Russell, Interim Public Works Director

SUBJECT: Status Report – Review and Evaluation of Methyl Tertiary Butyl Ether (MTBE) Testing and Remediation by Chevron

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RECOMMENDATION:

Review and discuss the information presented by Chevron, City staff and the City's consultant, PSOMAS; and, by motion, direct staff to provide regular updates to the City Council approximately every 60 days at a regular City Council meeting.

SITUATION:

In March 2007 the Orange County Health Care Agency (OCHCA) reported to the City that there had been a release of Methyl Tertiary Butyl Ether (MTBE) from Chevron gas stations at two sites. The two sites are located at the intersection of Camino Capistrano and Del Obispo (Camino Cap Site) and Ortega Highway and Del Obispo (Ortega Site) (Attachment 1). OCHCA has identified Chevron as the responsible party for both of these releases. The two closest wells downstream from these gas stations, are respectively, the Ground Water Recovery Plant's (GWRP) Dance Hall well and the Tirador well. The MTBE release was reported as local to the sites, but moving at an undetermined rate and direction.

In October 2007, the City Council approved an agreement with PSOMAS to provide professional expertise and oversight for the ongoing testing and analysis being undertaken by Chevron at the direction of OCHCA. Highlights of the events to date, ongoing monitoring and testing work being undertaken by Chevron as well as PSOMAS' summary observations and comments have been provided as Attachments 2 and 3 to this staff report. Chevron staff, under the direction of OCHCA, has conducted and is continuing to conduct monitoring to measure the concentration location of the MTBE that has moved from the site, however, no remediation has begun. Chevron submitted a "Report of Site Assessment Activities – Borings B-7 through B-39 and Monitoring Wells MW-12A/B/C through MW-15A/B/C" for Chevron Service Station 9-3417 located at 32001 Camino Capistrano, San Juan Capistrano, California on January 16, 2008 and PSOMAS has provided written comments to Chevron regarding this report. These reports are available upon request.

Both the City's consultant PSOMAS and Chevron will provide a brief presentation at the City Council meeting. Representatives of Chevron, PSOMAS and City staff will be available to address the City Council's questions at the meeting and provide information on their next steps.

The City's primary concern is the safety of the community and the protection of the City wells that provide our drinking water supply. On January 16, 2008, the City was in receipt of laboratory data on the proximity of MTBE in the furthest downstream groundwater monitoring well. Additionally, a trace detection at the Dance Hall well was discovered independently by City staff that had begun weekly testing on the well as a precautionary measure. Based on this information, daily sampling and laboratory analysis for MTBE and oxygenates was initiated in the Dance Hall well on January 16, 2008. The Dance Hall well has showed sustained readings of this trace amount since that time. On January 28, 2008, the City was in receipt of laboratory data showing a small detection of MTBE in the Kinoshita Well, near Camino Del Avion and Alipaz. Staff is still investigating the source of this most recent discovery.

Although the trace amounts detected are below the primary (public health risk level) and secondary (aesthetic level) standards for MTBE, the wells have been shut down as a precautionary measure until further evaluation can be made on the impacts to the community. Additionally, City staff has reported all MTBE readings (even those below reportable levels) to the California Department of Public Health (DPH), the agency responsible for permitting the City's wells. To date, the DPH has not required the shutdown of the wells due to public health risk. Since these wells are blended with other wells (currently showing non-detect for MTBE), the overall levels of MTBE in the supply provided by the GWRP may be even lower than each of the wells. Staff has prepared calculations based on discussions with our consultants that represent the resulting levels that would be present in the water produced from the GWRP. Attachment 4 to this report provides an overview of those calculations and the resulting levels projected in the product water.

As stated earlier, even though the levels are well below the primary and secondary standards, DPH has taken any formal action and blending can be used to reduce the levels, the wells have been shut down until further investigation and discussion of the matter by the City Council.

Staff recommends the City Council review and discuss the information provide any additional feedback and/or direction to staff based on these discussions. Additionally, staff recommends that regular updates be provided to the City Council at their regular City Council meeting approximately every sixty days.

COMMISSION/BOARD REVIEW AND RECOMMENDATIONS:

The Water Advisory Commission (WAC) has been provided a status update at their regular monthly commission meetings. The WAC has expressed dissatisfaction with Chevron's efforts to date including their inability to gain access from property owners, and their failure to provide specific responses to questions posed, as to the extent of the contamination plume and the measures they are taking to remediate.

FINANCIAL CONSIDERATIONS:

The cost of oversight work is estimated at approximately $90,000, including the contract with PSOMAS ($84,000), plus the additional staff cost ($6,000). Additionally, the detection of MTBE in the City's GWRP production wells has resulted in those wells being shut down pending further investigation. This reduced production brings the GWRP to one-half (1/2) capacity. The reduction in capacity results in the loss of grant funds and the cost of additional imported water for the City. The imported water is used to replace the water that would have been produced from these wells. Based on City Council direction at their October 16, 2007 meeting staff will be pursuing reimbursement from Chevron for all costs associated with the MTBE related issues.

NOTIFICATION:

Not Applicable.

RECOMMENDATION:

Review and discuss the information presented by Chevron, City staff and the City's consultant, PSOMAS; and, by motion, direct staff to provide regular updates to the City Council approximately every 60 days at a regular City Council meeting.

Respectfully submitted,

Cindy Russell/mp

Cindy Russell
Interim Public Works Director

Attachments:
1 -General Location Map
2 -Activities March 2007 through October 2007
3 -Activities October 2007 through January 2008, by location
4 -Calculations of projected MTBE in blended GWRP product water

ACTIVITIES MARCH 2007 – OCTOBER 2007

In March 2007, the Orange County Health Care Agency (OCHCA) and Chevron jointly reported to the City of San Juan Capistrano (City) that there had been a release of Methyl Tertiary-Butyl Ether (MTBE) from Chevron gas stations at two sites. The sites are located at the intersection of Camino Capistrano and Del Obispo (Camino Capistrano site), and Ortega Hwy and I-5 (Ortega site) (Attachment 1). The two closest wells downstream from these gas stations, are respectively, the Ground Water Recovery Plant's (GWRP) Dance Hall well and the Tirador well. The MTBE release was reported as local to the sites, but moving at an undetermined rate and direction. Chevron staff, under the direction of staff from OCHCA, has conducted and is continuing to conduct additional monitoring to measure the concentration location of the MTBE that has moved from the site.

On May 7, 2007; the City administratively signed a contract with PSOMAS to review the procedures and results of the MTBE and related compounds testing conducted by Chevron to date. The examination resulted in a recommendation to monitor the progress of the testing by Chevron, before taking further action. Tests conducted for MTBE, DIPE, TAME, and BTEX in June 2007 at Dance Hall and Tirador wells showed no detectable levels. Chevron started offsite testing for the Camino Capistrano site in late June and is still in the process of sampling and testing as of early October 2007. Chevron delivered a preliminary report in late September. Offsite testing for the Ortega site has been delayed due to the inability of Chevron to secure permission from the property owners in the area to conduct the testing. Partial performance of the testing at the Ortega site began in September 2007.

On July 24, 2007, the City's Water Advisory Commission (Commission) requested the presentation of a proposal to conduct proactive testing and monitoring. The program as conceived is to install an array of six (6) clusters of sentinel wells and monitor these wells monthly for MTBE. Each cluster well was to consist of a shallow well driven to approximately 30 feet below ground surface (bgs), and a second nearby well driven to approximately 80 feet bgs. The results of this testing, along with results from testing by Chevron, would have allowed an evaluation of the rate of travel of groundwater and the levels of MTBE present at the Chevron sites. This would help to predict whether and when the sentinel wells may expect to test positive for MTBE.

At the Commission's meetings of August 28th and September 25, 2007, presentations on the conditions, progress to date, and expected progress, were made by Anthony Martinez of Orange County Health (OCH); Michael Donovan of PSOMAS, Natasha Molla of Chevron, and by Lynleigh Lowry of Conestoga-Rovers (Consultant to Chevron.) The presentation on August 28th showed that sufficient progress had been made to delay taking action on the sentinel wells and to consider oversight by PSOMAS of the work conducted by Chevron. At that time, the Commission requested a proposal to provide oversight.

On September 24, 2007, OCHCA approved the "Site Assessment Work Plan" (SAWP) presented by Chevron. The Chevron plan was similar to the sentinel wells proposed by PSOMAS but has some differences. The SAWP covers only the Camino Capistrano site, as OCHCA does not consider that sufficient data has been collected for the Ortega site to position sentinel wells. The SAWP includes 4 well clusters instead of 3, but puts them closer to the currently defined MTBE plume. The well clusters are placed shallower, 65 feet, as opposed to the recommendation of 85 feet by PSOMAS.

At the September 25, 2007, Commission meeting, a proposal by PSOMAS to conduct oversight of the work by Chevron was presented. The Commission recommended approval of the agreement and on October 16, 2007, the City Council approved the agreement. Additionally, the City Council directed staff to pursue reimbursement from Chevron for all costs the City incurs related to the MTBE release.

PSOMAS' role is to monitor Chevron's investigation activities related to investigation of MTBE contaminant plumes. The proposal provides a review of the work by Chevron for completeness, effectiveness, and timeliness to assure the City that everything that can be reasonably done, is being done; and if not, provide a basis to bring a case to the OCHCA.

ACTIVITIES OCTOBER 2007 THROUGH JANUARY 2008

CHEVRON SERVICE STATION #9-3417 (Camino Capistrano Site)

Chevron initiated installation of three sets of well clusters (MW-12A, B, C; MW-13A, B, C; MW-14A, B, C) in early October 2007. Well installation was completed on October 18, 2007. A PSOMAS representative was present during selected portions of the boring advancement and installation of selected wells.

On October 24, 2007, a meeting was held between representatives of Chevron, Orange County Health Care Agency (OCHCA) and City of San Juan Capistrano (CSJC) representatives to discuss actions proposed by Chevron and Chevron's request for information on the operation of the Dance Hall well and the City's Groundwater Recovery Plant (GWRP).

On November 12, 2007 Chevron purged and sampled groundwater collected from the three newly installed well clusters (MW-12A, B, C; MW-13A, B, C; MW-14A, B, C).

On November 27, 2007, the Water Advisory Commission was provided with an update of ongoing activities being conducted regarding the Chevron Capistrano site.

An additional well cluster was installed in late November 2007 (installation of this fourth well was delayed due to issues associated with access agreements). On November 29, 2007, the newly installed wells MW-15A, B, and C were purged and samples of groundwater were obtained and submitted to a laboratory for analysis for presence or absence of various compounds including MTBE. All of the well clusters as well as the existing wells on and adjacent to the service station were re-sampled on December 27, 2007 as part of the 4th Quarterly groundwater sampling period.

On November 29, 2007 the City met with Chevron and their representatives regarding specific questions on Chevron's activities concerning the Capistrano and Ortega Highway sites. Specifically, the City asked for the following:

1) the appropriateness of the laboratory that Chevron is using to analyze samples;
2) for a map showing the locations of Chevron monitoring wells and a schedule for sampling those wells;
3) for increased monitoring well sampling frequency;
4) that Chevron perform a "360 degree" investigation; in essence, looking in all directions around the release points (i.e., underground storage tanks); and

5) access to Chevron's "predictive models and data" so that the City can run "what if" scenarios and to assess the contingency plans that Chevron is developing to address potential impacts of MTBE in the production well.

Weekly sampling and laboratory analysis for MTBE and oxygenates was initiated in the Dance Hall well on December 12, 2007.

On December 18, 2007 the Water Advisory Commission was provided with an update on the ongoing activities being conducted regarding the Chevron Capistrano site.

On January 16, 2008 Chevron submitted a "Report of Site Assessment Activities – Borings B-7 through B-39 and Monitoring Wells MW-12A/B/C through MW-15A/B/C" for Chevron Service Station 9-3417 located at 32001 Camino Capistrano, San Juan Capistrano, California.

Following receipt of laboratory data on the proximity of MTBE in the furthest downgradient groundwater monitoring well MW-15C at a concentration of 8.2 µg/L and the detection of MTBE at 1.0 µg/L in the Dance Hall well, daily sampling and laboratory analysis for MTBE and oxygenates was initiated in the Dance Hall well on January 16, 2008, by City personnel.

On January 22, 2008, the Water Advisory Commission was provided with an update on the ongoing activities being conducted as well as preliminary findings of the review of the Chevron January 1, 2008 report submitted on previous site investigation activities regarding the Chevron Capistrano site. Following the meeting, PSOMAS (on behalf of the City) submitted comments on the aforementioned report. In summary, the report was found:

1) to contain a number of errors and misstatements;
2) to not fully analyze all of the data that had been collected; and
3) to be lacking in presentation of details and would benefit from the development and refining of the Site Conceptual Model.

On January 23, 2008 a meeting was held with OCHCA, Chevron, RWQCB and City personnel to address access issues associated with the Ortega Highway site as well as issues associated with proposed next steps for the Camino Capistrano site. OCHCA indicated that it was issuing an IRP directive to direct Chevron to develop an interim remediation plan within a specific time period (possibly 30 days). As of January 30, 2008, OCHCA had not sent out the directive for the IRP to Chevron.

ACTIVITIES OCTOBER 2007 THROUGH JANUARY 2008

CHEVRON SERVICE STATION N0. 9-8719 (Ortega Highway Site)

On December 10, 2007 Chevron conducted the 4th Quarterly groundwater monitoring of existing wells both on and off-site in vicinity of the Ortega Highway station.

On January 23, 2008 a meeting was held with OCHCA, Chevron, RWQCB and City personnel to address access issues associated with the Ortega Highway site. Chevron continues in negotiations with several property owners regarding access to property to conduct further site investigation activities and the City continues to assist parties in trying to resolve these issues.

Calculations of projected MTBE level in blended GWRP product water

Based on Standard Limits of Detection

	Tirador	SJB#4	CVWD#1	SJBA#2	Kinoshita	Dance Hall	Total
Projected Production Rate (mg); February 2008	1.077	1.300	1.300	1.255	0.788	1.300	7.020
MtBE contaminant ug/l	0.00	0.00	0.00	0.00	4.00	1.90	na
Load #/day	0	0	0	0	0.02628768	0.0205998	0.04688748
Projected MtBE concentration in combined Raw water (ug/l)							**0.8008547**
Projected MtBE concentration in product water with 30% removal in RO Train.(ug/l)							**0.60864957**

Based on levels just below limits of detection

	Tirador	SJB#4	CVWD#1	SJBA#2	Kinoshita	Dance Hall	Total
Projected Production Rate (mg); February 2008	1.077	1.300	1.300	1.255	0.788	1.300	7.020
MtBE contaminant ug/l	0.95	0.95	0.95	0.95	4.00	1.90	na
Load #/day	0.00853307	0.0102999	0.0102999	0.00994337	0.02628768	0.0205998	0.08596372
Projected MtBE concentration in combined Raw water (ug/l)							**1.4682906**
Projected MtBE concentration in product water with 30% removal in RO Train.(ug/l)							**1.11590085**

Based on levels just below limits of detection (w/o Tirador)

	Tirador	SJB#4	CVWD#1	SJBA#2	Kinoshita	Dance Hall	Total
Projected Production Rate (mg); February 2008	1.077	1.300	1.300	1.255	0.788	1.300	5.943
MtBE contaminant ug/l	0.95	0.95	0.95	0.95	4.00	1.90	na
Load #/day	0.00853307	0.0102999	0.0102999	0.00994337	0.02628768	0.0205998	0.08596372
Projected MtBE concentration in combined Raw water (ug/l)							**1.73437658**
Projected MtBE concentration in product water with 30% removal in RO Train.(ug/l)							**1.3181262**

MtBE Limits of Detection (ug/l)	1.0
MtBE DPH Reporting level (ug/l)	3.0
MtBE DPH 2ndry Std(ug/l)	5.0
MtBE MCL (ug/l)	13.0

ATTACHMENT 4

GROUNDWATER ASSESSMENT STUDY
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
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EXHIBIT 3

GROUNDWATER ASSESSMENT STUDY
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
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GROUNDWATER ASSESSMENT STUDY
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
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FIGURES

Chapter II- Methodology

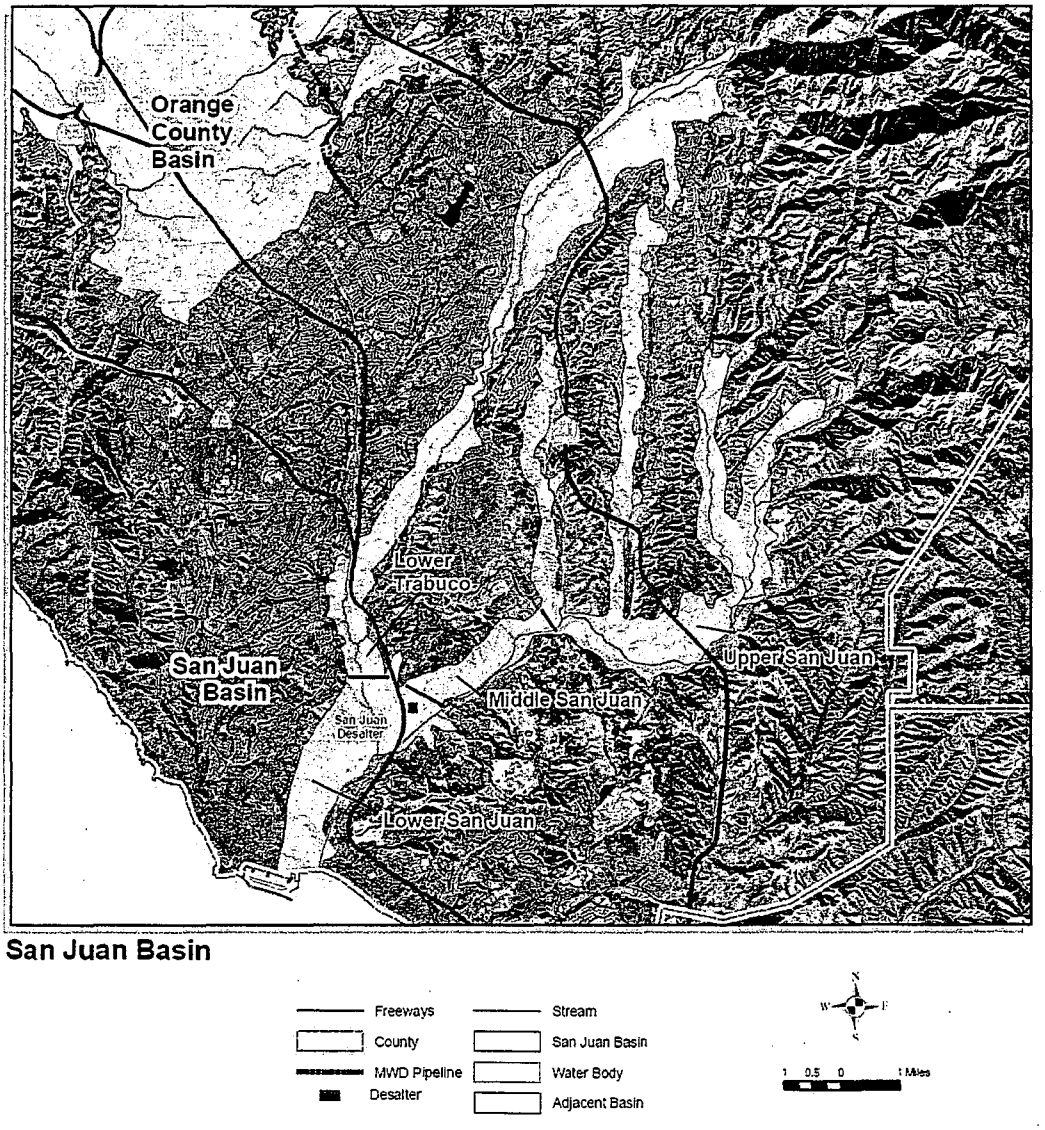
Chapter III – Regional Overview

Chapter IV – Groundwater Basin Reports

Ventura County Basins

The San Juan Basin is located in southern Orange County within the San Juan Creek Watershed. The basin is comprised of four subbasins: Upper San Juan, Middle San Juan, Lower San Juan and Lower Trabuco. The San Juan Basin is within the service area of Metropolitan member agency Municipal Water District of Orange County (MWDOC) and underlies portions of the communities of Mission Viejo, San Juan Capistrano, Dana Point, and unincorporated areas of southern Orange County. A map of the basin is provided in **Figure 11-1**.

Figure 11-1
Map of the San Juan Basin



BASIN CHARACTERIZATION

The following section provides a physical description of the San Juan Basin including its geographic location and hydrogeologic character.

Basin Producing Zones and Storage Capacity

Groundwater exists in generally narrow, shallow unconfined alluvium that has been deposited in the San Juan Canyon area and its tributaries: Arroyo Trabuco, Oso, and other smaller canyons. The basin is bounded on the southwest by the Pacific Ocean and otherwise by Tertiary marine sedimentary rocks, which underlie the surrounding hills and the alluvium. The alluvium consists of a heterogeneous mixture of sand, silt, and gravel in the eastern portion of the basin, to coarse sand near the center, to silts, clays, coarse sand, fine gravel and sediments in the southern portion of the basin (DWR, 2004, MWDOC, 2006a). The alluvium ranges in depth from about 200 feet at the coast to essentially zero at the upper ends of the small alluvial tributaries to the main canyons (NBS Lowry, 1994). A summary of the basin characteristics is provided in **Table 11-1**.

Table 11-1
Summary of Hydrogeologic Parameters of San Juan Basin

Parameter	Description
Structure	
Aquifer(s)	Unconfined alluvium; confined zones near the coast.
Depth of groundwater basin	< 20 feet to >200 feet
Yield and Storage	
Safe Yield	7,300 to 7,800 AFY
Total Storage	63,220 to 90,000 AF
Unused Storage Space	Unknown
Portion of Unused Storage Available for Storage	Unknown

Sources: County of Orange, 2006; DWR, 1972; NBS Lowry, 1994

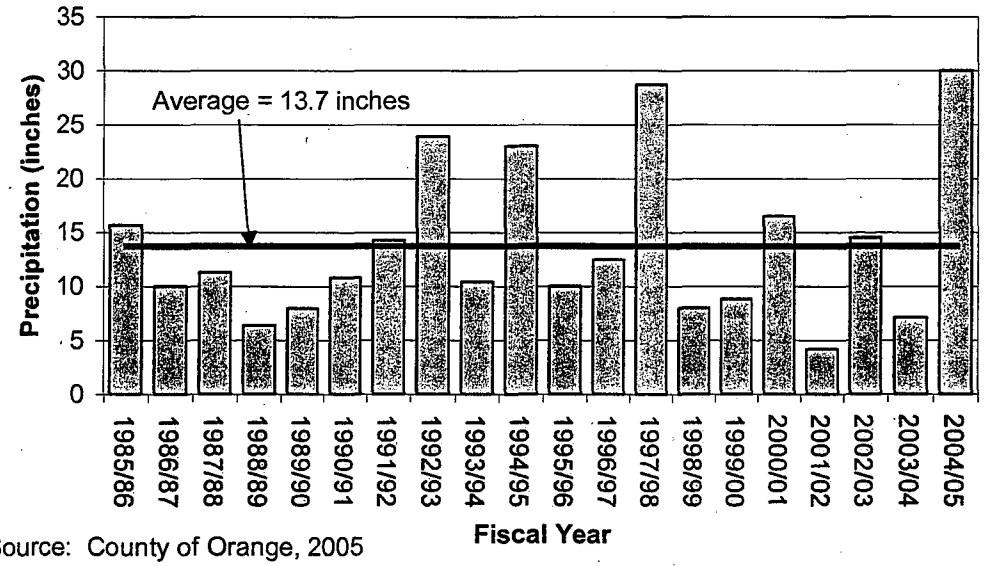
The main structural feature influencing groundwater movement is the Cristianitos Fault, which crosses San Juan Canyon in a north-south direction where it forms a narrow section at the confluence of San Juan Creek and Canada Chiquita. At the fault and canyon narrows, groundwater is forced to the surface, and the Upper Basin is separated from the Lower Basins. As shown on **Figure 11-1**, the Lower Basins include the Lower Trabuco, Middle San Juan, and the Lower San Juan subbasins.

Total storage capacity estimates range from 63,220 AFY to 90,000 AF (NBS Lowry, 1994; DWR, 1972). Useable groundwater storage is approximately 60,000 AF (MNWD, 2006). Unused storage capacity is unknown. However, following the heavy rains of the 1997/98 winter season, the basin was essentially full (USACE, 2002). Water levels in various locations in the basin since 2004 are less than 50 feet below ground surface. As a result, available storage space is limited in most areas (Psomas, 2006).

Safe Yield/Long-Term Balance of Recharge and Discharge

Recharge consists of streambed percolation from the mainstream San Juan and Arroyo Trabuco Creeks, rainfall infiltration and subsequent deep percolation to the water table, deep percolation of applied water from landscape and agricultural irrigation, and subsurface inflow from the tributary alluvial stream areas. The average annual precipitation in the lower portion of the basin ranges from 11 to 15 inches (DWR, 2004). **Figure 11-2** provides the historical precipitation data in the lower portion of the basin for the fiscal years from 1985/86 to 2004/05. Average precipitation during this time period was about 13.7 inches. It is important to note that precipitation is highly variable in this basin with lower rainfall in the lower basins and higher rainfall in the upper basins. For example, the 40-year average precipitation (1965 to 2004) in the upper portions of the basin is as much as 20 inches (County of Orange, 2005).

Figure 11-2
Historical Precipitation in the San Juan Basin



Source: County of Orange, 2005
Station 186

Discharge from the basin includes well extractions, losses to transpiration by phreatophytes, rising groundwater resulting in surface discharge to the ocean and subsurface outflow to the

Pacific Ocean. Extractions of water from the lower reaches of the basin were limited due to poor water quality until the San Juan Desalter came online in 2004.

In 1993, the sustained yield for the basin was estimated to be 7,800 AFY (NBS Lowry, 1994; USACE, 2002). More recently, the County of Orange has used a 2005 estimate of 7,300 AFY of safe yield in their planning (County of Orange, 2006).

GROUNDWATER MANAGEMENT

The following describes how the San Juan Basin is currently managed. This section includes a discussion of the governing structure and agreements with adjacent basins.

Basin Governance

The San Juan Basin is managed by the San Juan Basin Authority (SJBA), which was created in 1971 as a joint powers authority for the purpose of carrying out water resources development of the San Juan Basin. The members of the SJBA are the Santa Margarita Water District (SMWD), the Moulton Niguel Water District (MNWD), South Coast Water District, and the City of San Juan Capistrano.

Table 11-2 provides a list of management agencies in the San Juan Basin.

Table 11-2
Summary of Management Agencies for the San Juan Basin

Agency	Role
San Juan Basin Authority (SJBA)	Joint Powers Authority established to plan and build facilities to protect the water quality of the San Juan Basin. Operates San Juan Basin Desalter
City of San Juan Capistrano (SJC)	Retail Water Provider and SJBA Member
Santa Margarita Water District (SMWD)	Retail Water District and SJBA Member
Moulton Niguel Water District (MNWD)	Retail Water District and SJBA Member
South Coast Water District (SCWD)	Retail Water District and SJBA Member
Municipal Water District of Orange County (MWDOC)	Wholesale imported water supplier and regional planning agency
California Regional Water Quality Control Board – San Diego Region (RWQCB)	Issuance of permits for discharges
State Water Resources Control Board	Issuance of water rights permits for diversion/extraction of water from the San Juan Basin.

The San Juan Basin has been categorized as subterranean flowing stream, and therefore groundwater extractions are within the scope of water rights regulations of the State Water Resources Control Board. Permits require the monitoring of groundwater quality and quantity in storage within the groundwater basin and other factors, including potential seawater intrusion and environmental issues. The SJBA conducts the monitoring activities that are needed to comply with its permits and also actively pursues the development of projects within the basin (MNWD, 2006).

Interactions with Adjoining Basins

No subsurface flow has been quantified between the San Juan Basin and adjoining basins. Water not captured by production wells or lost to evapotranspiration flows out of the basin into the ocean.

WATER SUPPLY FACILITIES AND OPERATIONS

The following provides a summary of the facilities within the San Juan Basin. Facilities include 13 groundwater production wells and a desalter.

Active Production Wells

A summary of the municipal production wells within the San Juan Basin is provided in **Table 11-3**. Private wells are not included on this table. Wells in the San Juan Basin typically produce from 450 to 1,000 gpm (DWR, 2004). Historical production for the period between fiscal years 1989/90 and 2004/05 is shown in **Figure 11-3**. The average production during this time period was approximately 2,079 AFY. It is important to note that production increased in 2004/05 as a result of the operation of the San Juan Desalter discussed below.

Groundwater is used principally for agricultural, horticultural, glass sand mining, golf course irrigation and for domestic uses. There are only three agencies within the SJBA actively pumping groundwater for municipal use (City of San Juan Capistrano, TCWD, and Santa Margarita Water District). More than 90 percent of the municipal groundwater production is for domestic use with less than 10 percent for non-domestic use.

Other Production

Data related to the private wells in the basin are not available.

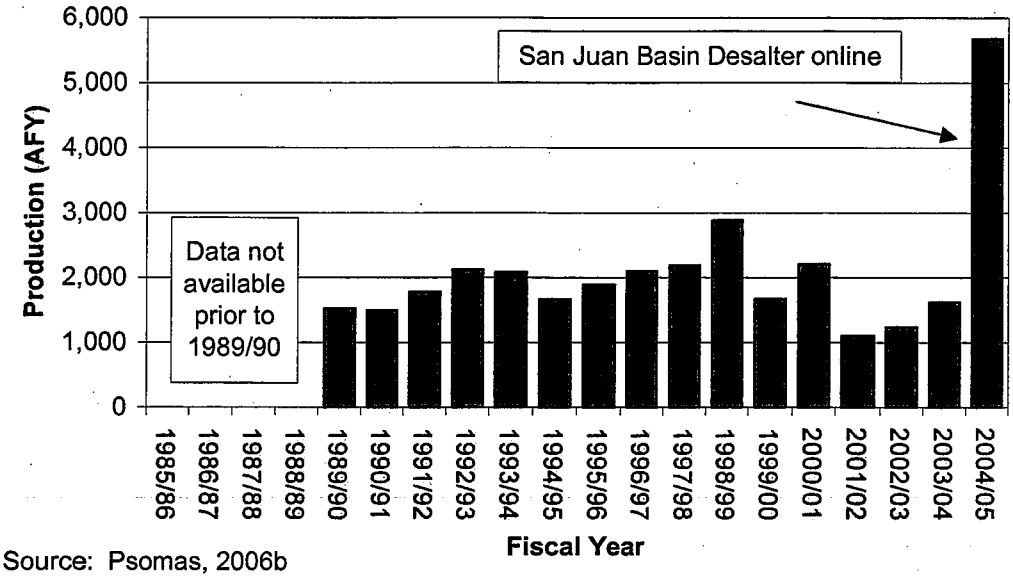
ASR Wells

Currently there are no ASR wells operating within the basin.

Spreading Basins

There are no spreading basins in the San Juan Basin. Recharge occurs mainly in natural streambeds and flood control channels (MNWD, 2006). SJBA plans to develop recharge basins to enhance capture of surface runoff.

Figure 11-3
Historical Groundwater Production in the San Juan Basin



Source: Psomas, 2006b

Table 11-3
Summary of Production Wells in the San Juan Basin

Category	Number of Active Wells	Estimated Production Capacity (AFY)	Average Production 1989/90-2004/05 (AFY)	Well Operation Cost ($/AF)
Municipal	7	10,000	1,949	Data not available
Desalter [1]	6	4,800	130	
Total	**13**	**14,800**	**2,079**	--

Source: Psomas, 2006b
[1]Desalter came online in 2004.

Seawater Barriers

There are no seawater barriers in the San Juan Basin.

Desalters

There is one existing desalter in the San Juan Basin. The San Juan Basin Desalter was constructed by the City of San Juan Capistrano pursuant to the terms of the 1998 San Juan Basin Desalter Project Groundwater Recovery Program Agreement between Metropolitan, MWDOC, and the SJBA, and as modified by First Amendment dated October 15, 2002. The San Juan Basin Desalter was completed in December 2004 and has capacity of about 5 MGD and can currently treat about 4,800 AFY. The plant is currently supplied by six wells located in the Lower San Juan subbasin. The brackish water from these wells is conveyed to the plant where it is treated by reverse osmosis (County of Orange, 2006). Approximately 4,800 AF was produced from the six operating wells during the period December 2004 through December 2005 (Psomas, 2006).

A second desalter, referred to as the Capistrano Beach Desalter Project, is currently under construction in the City of Dana Point by South Coast Water District. This desalter would treat up to 1,300 AFY from the San Juan Basin. Construction is estimated to be completed by March 2007.

GROUNDWATER LEVELS

Groundwater generally flows in a southwesterly direction to the ocean. The SJBA measures the water level in monitoring wells on a regular basis. Groundwater levels within the lower San Juan Creek are relatively close to the ground surface. Depth to water levels measured during 2004 and 2005 were typically less than 20 feet in the Lower and Middle San Juan subbasins. Drops in water levels of about 20 feet were observed in the vicinity of the San Juan Basin Desalter since it began operation. Water levels in the Lower Trabuco subbasin were deeper with an average depth to water of about 50 feet.

Monitoring wells recently installed in the basin are used to measure both water level and electric conductivity. The goal of the SJBA is to produce enough data to determine how the basin can be more effectively used as a water storage facility to increase the use of the groundwater for domestic uses. Water levels in basin wells show seasonal cycles with average declines related to drought cycles that recover during more plentiful seasons (DWR, 2004).

GROUNDWATER QUALITY

The following section describes the existing groundwater quality issues in the San Juan Basin. In general, the groundwater quality of the San Juan Basin ranges from good to poor. For example, although the Upper San Juan subbasin is shallower, it is has lower total dissolved solids (TDS) concentrations (less than 500 mg/L) than the lower basins. The lower basins are generally deeper with more abundant supply, but they are brackish and require treatment for use.

Groundwater Quality Monitoring

Active groundwater production wells within the San Juan Basin are sampled in accordance with Title 22. In addition, as described above, monitoring wells installed in the basin are used to measure both water level and electric conductivity in the field and various inorganic constituents in the laboratory on a semi-annual basis.

Groundwater Contaminants

The following section describes the concentrations of key constituents of concern (TDS, iron, manganese, and sulfate) in the San Juan Basin. Concentrations are summarized in **Table 11-4**. In general, TDS content in groundwater increases from below 500 mg/L in the upper stream channels valleys to above 2,000 mg/L near the coast (NBS Lowry, 1994; Psomas 2006a).

Table 11-4
Summary of Constituents of Concern in the San Juan Basin

Constituent	Units	Range (1999-2005)	Description
TDS Secondary MCL = 500	mg/L	390 to 2,200	TDS in production wells ranges from 390 to 1,250 mg/L. Average is 657 mg/L.
Nitrate (as N) Primary MCL = 10	mg/L	ND to 2	Average in production wells is approximately 0.6 mg/L.
VOCs **(TCE and PCE)** Primary MCL for TCE = 5 Primary MCL for PCE = 5	µg/L	ND	VOCs are not detected in the San Juan Basin.
Perchlorate Notification level = 6	µg/L	ND	Perchlorate is not detected in the San Juan Basin.
Iron and manganese Secondary MCL for iron = 300 Secondary MCL for manganese = 50	µg/L	Iron ND to 700 Manganese ND to 200	Only 2 groundwater production wells have detections of iron and manganese.
Sulfate Secondary MCL = 250	mg/L	71 to 840	Sulfate in production wells ranges from 71 to 225 mg/L with an average of 150 mg/L.

Source: Regional Board, 2006; Psomas, 2006a

Seawater intrusion could also be a potential problem in the coastal portions of the basin. It is believed that much of the salt content in the groundwater comes from the marine sediments that underlie much of the basin principally from Trabuco Creek (USACE, 2002).

Blending Needs

Blending is not applicable to the San Juan Basin (MNWD, 2006).

Groundwater Treatment

Groundwater is treated by the San Juan Basin Desalter as discussed above. Approximately 2,075 AF was treated in 2004/05, about 58 percent of the total groundwater production.

CURRENT GROUNDWATER STORAGE PROGRAMS

There are currently no groundwater storage programs in the San Juan Basin.

BASIN MANAGEMENT CONSIDERATIONS

Basin management considerations:

- Allowable quantities of water that may be diverted and pumped are specified in the water rights permits administered by the State Water Resources Control Board.
- Except for the Upper San Juan, the TDS of most of the groundwater in storage in the main part of the groundwater basin is too high for domestic water use. Groundwater is treated by the San Juan Basin Desalter, which increases the usability of the basin in the future.
- Shallow groundwater limits the ability to store significant supplies.

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City of San Juan Capistrano
Preserving the Past to Enhance the Future

Press Releases

City assumes water plant operations from private operator

Posted Date: 11/17/2008 1:00 PM

The City has taken over the day-to-day operations and maintenance of its Groundwater Recovery Plant from SouthWest Water Company (SWWC), which has operated the plant under contract with the City since its construction in 2004.

Organizational restructuring that led to the formation of the City's new utilities department provides a distinctive opportunity for the change. The department was created to consolidate the City's drinking, ground, waste and recycled water programs.

"With the recent addition of highly qualified and knowledgeable City staff in all facets of utility operations, including the Groundwater Recovery Plant, the City and SWWC agree it's a good time to change hands," said Utilities Director John O'Donnell.

As the state's drought continues in its ninth year – limiting the availability of imported water to the region – the City's Groundwater Recovery Plant is a key component of San Juan Capistrano's local water supply. Most of South County relies 100 percent on imported water supplies. The City's plant produces up to 5.15 million gallons of drinkable water per day or about half of the community's needs.

The plant is currently running at a little more than half capacity with plans to bring it to full capacity over the next few months as additional well head treatment is installed to the Dance Hall well.

EXHIBIT 4

AGENDA REPORT

March 25, 2008

TO: Water Advisory Commission

FROM: Cindy Russell, Interim Public Works Director

SUBJECT: Consideration of Engineering and Field Operations Status Update for February 2008

RECOMMENDATION:

By motion, receive and file.

The following is the status of current engineering and field operations activities for the Public Works Department Water Division:

ENGINEERING DIVISION:

Local Wells
February 2008 well production at Rosenbaum No. 1 (R1) was 51.2 acre-feet (AF), North Open Space (NOS) was 33.4 AF production, and Hollywood Well 2A (HW2A) was 11.7 AF.

Cooks Reservoir Replacement
The contractor, Pacific Hydrotech Corporation, is currently sealing the completed reservoir structure in preparation for cleaning, disinfecting, and then filling of the reservoir. Next step will be the testing of the reservoir for any leaks. Following passage of leak testing, backfilling of the site will commence.

Recycled Water Master Plan (RWMP)
No change.

Recycled Water System Retrofits
The first six converted sites are undergoing final inspection and approval for delivery of recycled water. A contract for the design of the next eight sites is in the approval process.

High West Side (HWS) Pipeline Project
City Council, at their March 4, 2008, meeting, awarded a construction contract for the High West Side Pipeline (CIP 793), Recycled Water Pipeline (CIP 755) and Recycled Water Pressure Reducing Station (CIP 785) Projects to J. De Sigio Construction, Inc. in the amount of $2,512,228.

ITEM NO. 6

Advanced Water Treatment (AWT) Joint Participation
No change.

Groundwater Recovery Plant (GWRP) Operation

Production:
The GWRP was effectively off for February 2008, producing only 26.9 acre-feet (AF). The production for fiscal year 2007/08 thus far is 1,268.3 AF. On January 30, 2008, \ Southwest Water Company (formerly ECO) had to shut the GWRP down due to extremely high turbidity levels in the clear well. Composite sampling levels were at 1.04 NTU (20 times the Service Contract's Product Water Guarantee of 0.05 NTU). It was determined on January 31, 2008, that the clear well needed to be cleaned out, taking the GWRP out of service. The cleaning took longer than expected and upon the attempted start up, it was determined that the RO membranes had bacterial contamination. The GWRP attempted a start up on February 15, 2008, at which point it was determined that a malfunctioning sensor in the RO bypass filters would not allow the automated process to run. The plant operators declined to run the GWRP on manual override fearing an iron and manganese bleed through from the bypass filters. The sensors were repaired by February 25, 2008, however the TDS of the product water was now over 650 mg/l. The City directed Southwest Water Company to run the GWRP at or below a TDS of 500 mg/l or not run the plant.

Operations:
No change.

Colored Water Issues
No change. Trussell Technologies Inc. (TTI) is continuing to analyze field data.

Federal Grant Request
No change. H.R. 1140 has been received by the Senate and read twice on the floor. The bill has been referred to the Senate Energy and Natural Resources Subcommittee. The City has recently hired a new lobbying firm, which has been made aware of the City's funding needs for recycled water. The Mayor and City Manager were in Washington in early March to meet with Senators Feinstein and Boxer to discuss recycled water funding requests.

Proposition 50 Grant Requests
The City Council, at their February 18, 2008, meeting, adopted a Memorandum of Understanding and Implementation Agreement with the County of Orange for the handling of the Proposition 50 grant. The first requests for payment from the grant fund will be made in April.

Low Interest Loan Application
No change. Staff is awaiting final determination of the Section 106 study being conducted by ESA, and approval of a resolution by the City Council to purse the LILA before proceeding further.