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March 11, 2009

Arizona Corporation Commission

DOCKETED

MAR 11 2009

BY HAND DELIVERY

Mr. Ernest G. Johnson, Director
Utilities Division
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, Arizona 85007

DOCKETED BY	
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Re: **ANNUAL STATUS REPORT – LPSCO**
Potential Contamination of Water Supply
Decision No. 69912; Docket No. **W-01427A-06-0807**

Dear Mr. Johnson:

Enclosed please find the annual status report of Litchfield Park Service Company, which is required by Decision No. 69912 (September 27, 2007). Also enclosed are related maps of the area illustrating migration pattern of the underground plume. Should you have any questions, please do not hesitate to contact me at your convenience.

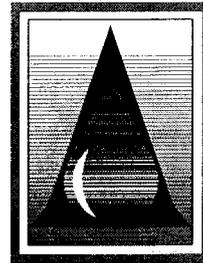
Sincerely,

Patrick J. Black

enclosures

c: Docket Control

2174533.1/60199.004



ALGONQUIN Water Services L.L.C.
Litchfield Park Service Company

March 11, 2009

Mr. Ernest G. Johnson, Director
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, Arizona 85007

RE: ANNUAL STATUS REPORT – LPSCO
Decision No. 69912, Docket Number W-01427A-06-0807

Dear Mr. Johnson;

Litchfield Park Service Company (LPSCO) is writing this letter as ordered by the Arizona Corporation Commission per Decision No. 69912 of all matters related to the deferrals, and the cumulative costs associated with monitoring groundwater in relation to the North Phoenix-Goodyear Airport (NPGA) Area Superfund Site.

Background:

As you are aware, LPSCO is concerned of the North Phoenix Goodyear Airport (NPGA) superfund Trichloroethylene (“TCE”) groundwater plume contamination migration in relation to the increased proximity to LPSCO’s drinking water wells. LPSCO testified on its application dated December 28, 2006, to the ACC the “Due to the movement of the plume, LPSCO’s TW1 and TW2 wells are the most likely immediately affected and are being monitored on a weekly basis”. Combined with the fact that LPSCO was alerted by the Environmental Protection Agency (EPA) that the full extent of the TCE plume (northeastern part) has not yet been fully defined (see attached Plume Migration Map Figure No. 1), LPSCO immediately began weekly testing starting December 2006 and ended in August 2007, then changed its sampling frequency from monthly in March, 2008 back to quarterly sampling starting the month of April, 2008. LPSCO continues to attend EPA focused monthly technical meetings in regards to the NPGA superfund site as well as continues to sample for TCE on a quarterly frequency until all protective

measures (ie. Monitoring wells/Remediation efforts) are in place and can confirm that the TCE plume is fully being captured.

As previously reported by LPSCO during its first annual status report submitted to the Arizona Corporation Commission (A.C.C.) dated January 7, 2008, significant progress has been made on the plume delineation and treatment of the contaminated ground water in regards to the northeastern portion of the plume. Several new additional monitoring wells (known as Sentential wells) have been installed in between LPSCO drinking water wells and the edge of the TCE plume.

During the early part of 2006, LPSCO informed the EPA of its desire to modify one of its existing water production wells for the purposes of supplying water to LPSCO's customer base. Prior to bringing this well on-line, LPSCO requested approval from the EPA in order to activate this well. The EPA requested that a ground water modeling analysis be performed to determine what influence the well would or could have of the extent of the TCE contamination plume. The ground water model was performed and the results indicated that the well would not impact or influence the migration of the TCE plume at a flow rate of up to 2,000 gallons per minute (gpm). Based on this approval, the EPA indicated the well could be used for its intended purposes as a drinking water well. However, the EPA requested that the group as well as the Arizona Department of Water Resources (ADWR) review the construction design of the well and allow the EPA and ADWR to make comments on how it the well should be modified in order to reduce vertical migration of the TCE plume. Immediately after the EPA's approval, LPSCO submitted a Notice of Intent to Modify the well with (ADWR) who required the well to be altered so that no vertical migration of TCE contamination could occur. LPSCO modified the well according to EPA and ADWR requirements and then further reduced the approved flow rate of 2,000 gallons per minute (gpm) down to 1,200 gpm in order to further ensure that the well would not influence the extent of the TCE plume.

Most recently, remediation efforts in the form of extraction wells have been installed and have been extracting TCE contaminated water from the upper subunit aquifer (known a subunit A) over the past year. These extraction facilities are known as EA-06 and EA-05 (see attached Figure 2) and have been operating for the past nine (9) to 12 months, respectfully.

On December 17, 2007, extraction well EA-06 located east of Litchfield and north of Thomas Roads was brought on-line to stop the advancement of the TCE plume toward the LPSCO drinking water wells (TW-1 and TW-2) located in the extreme north and northeast portion of the TCE plume. Sentential wells EPA-MW-31A and EPA-MW34A were placed at the edge of the TCE plume and LPSCO's drinking water wells. These monitoring wells will serve as advance warning of advancing TCE contamination. As of today, no TCE contamination has been detected in the LPSCO sentential wells (EPA-MW-31A and EPA-MW34A).

On March 31, 2008, extraction well EA-05 located east of Litchfield and south of McDowell Roads was constructed and began operation in order to capture the mid

section of the TCE plume which has been advancing to the east. The extraction well location was selected in order to have the best possible chance for capturing the mid eastern section of the TCE plume.

Based on the most recent conversations and data presented during the EPA technical meetings as of December, 2008, the EPA reported that the middle portion of the subunit A to be captured. However, one of the irrigation golf wells located in the McDowell Road and Palm Valley Boulevard corridor has realized an elevated increase in TCE concentrations within the subunit C aquifer. It is not known as of yet, as to the cause of these increased levels of TCE but the elevated levels of TCE have caused a level of concern regarding potentially spreading of TCE vertically into the drinking water aquifer known as subunit C. These increasing concentrations of TCE in the subunit C zone may possibly indicate an unknown mass of TCE in the lower portion of the drinking water aquifer. This new information has caused some concern and has energized the group to increase monitoring well installation activity over the next couple of months. It may also trigger additional remediation facilities along the mid section of the plume in the Thomas Road and potentially McDowell Road corridor in order to further protect the LPSCO drinking water well (LPSCO-Well34C) as well as City of Avondale wells further to the east (see attached diagram No. 2).

In addition, detectable concentrations of TCE have also been detected above the maximum contaminate level (MCL) of 5 ppb in EPA MW-35A which was designed to act as a sentential well on behalf of LPSCO-34C. Due to the potential advancement of the TCE plume and/or lack of capture in the mid eastern section of the plume, the EPA has scheduled an additional set of monitoring wells known as EPA-MW-40A, EPA-MW-40C, and EPA-MW-39A. These monitoring wells will further define the extent of the TCE plume and act to further protect LPSCO well 34C as well as the City of Avondale wells (see attached figure No.3).

Currently, LPSCO has spent approximately \$72,291.90 for the calendar year of 2006-2007 due to increased ground water frequency monitoring and legal costs for TCE. During the calendar year of 2007-2008, LPSCO has also spent approximately \$8,973.15 due to increased ground water monitoring frequency monitoring and legal costs for TCE (See attached Cost Breakdown Sheet). LPSCO has adjusted its ground water monitoring from monthly to quarterly due to the fact that sentential wells have been put in place during the month of April, 2008. LPSCO will continue to monitor on a quarterly basis as an added form of protection for its drinking water source. To date, there have been no test results indicating quantifiable concentrations of TCE in any of LPSCO's existing wells.

Regards,
Litchfield Park Service Company

Matthew E. Garlick, LPSCO Business Manager

COSTS BREAK DOWN

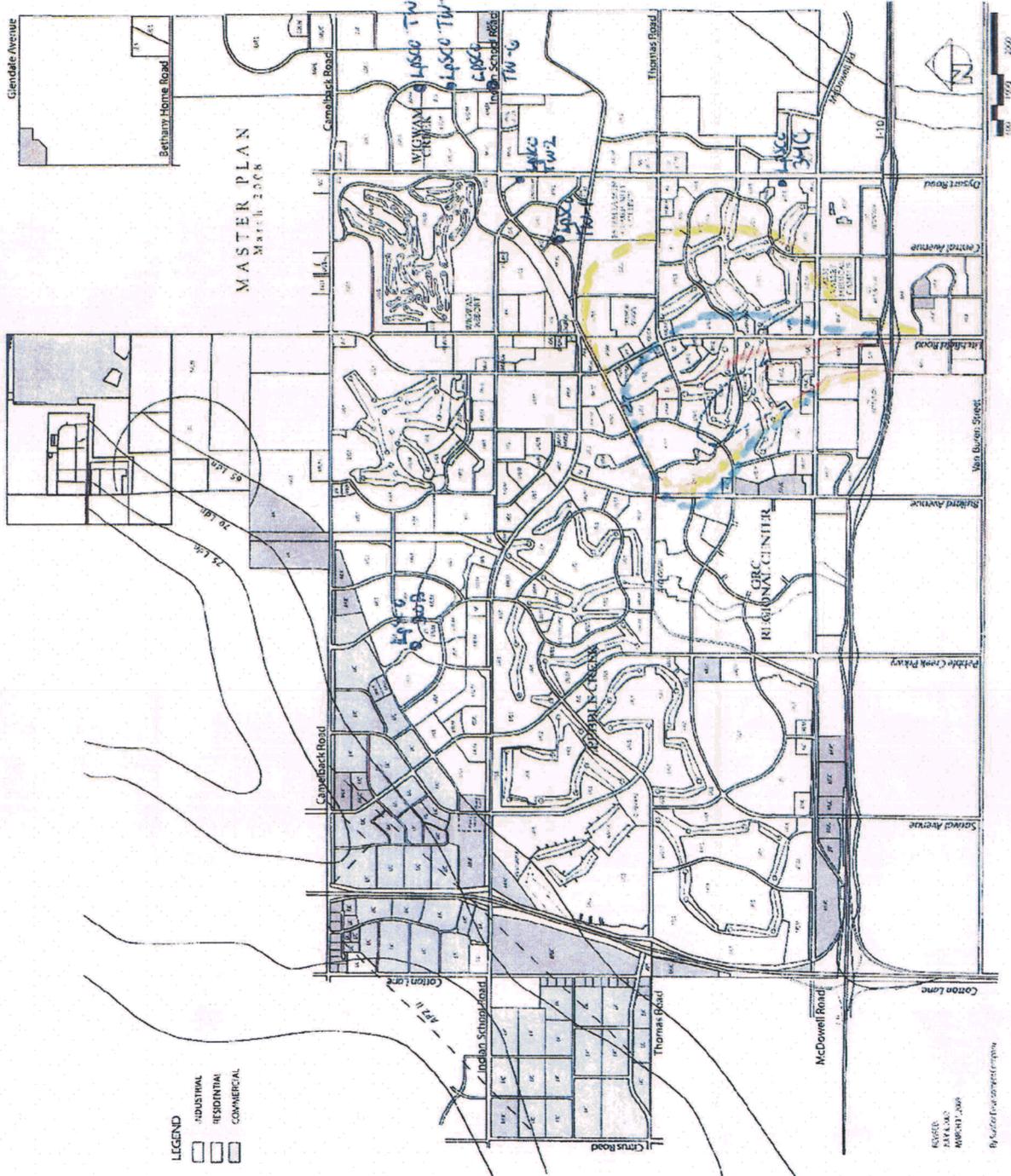
Litchfield Park Service Company
TCE Plume – Deferred Costs

July 1, 2006 – December 31, 2007

	<u>Amount</u>
Total Legal Costs	\$48,867.20
Total Increased Frequency of Water Sampling/Testing (2006-2007)	\$23,424.70
Total Costs	\$72,291.90

January 1, 2008 – December 31, 2008

	<u>Amount</u>
Total Legal Costs	\$254.15
Total Increased Frequency of Water Sampling/Testing(2008)	\$8,683.00
Total Costs	\$8,973.15



TCE plume
 1993
 1996
 1999
 2001
 2005

Figure 1

REVISED
 DATE: 03/08
 BY: JLD/MLP
 BY: Golder Associates Inc.

DATE: 11/14/2008 10:00 AM

LPSCO TW-4

LPSCO TW-6

LPSCO TW-1

LPSCO TW-2

LPSCO TW-3

LPSCO TW-5

LPSCO TW-7

LPSCO TW-8

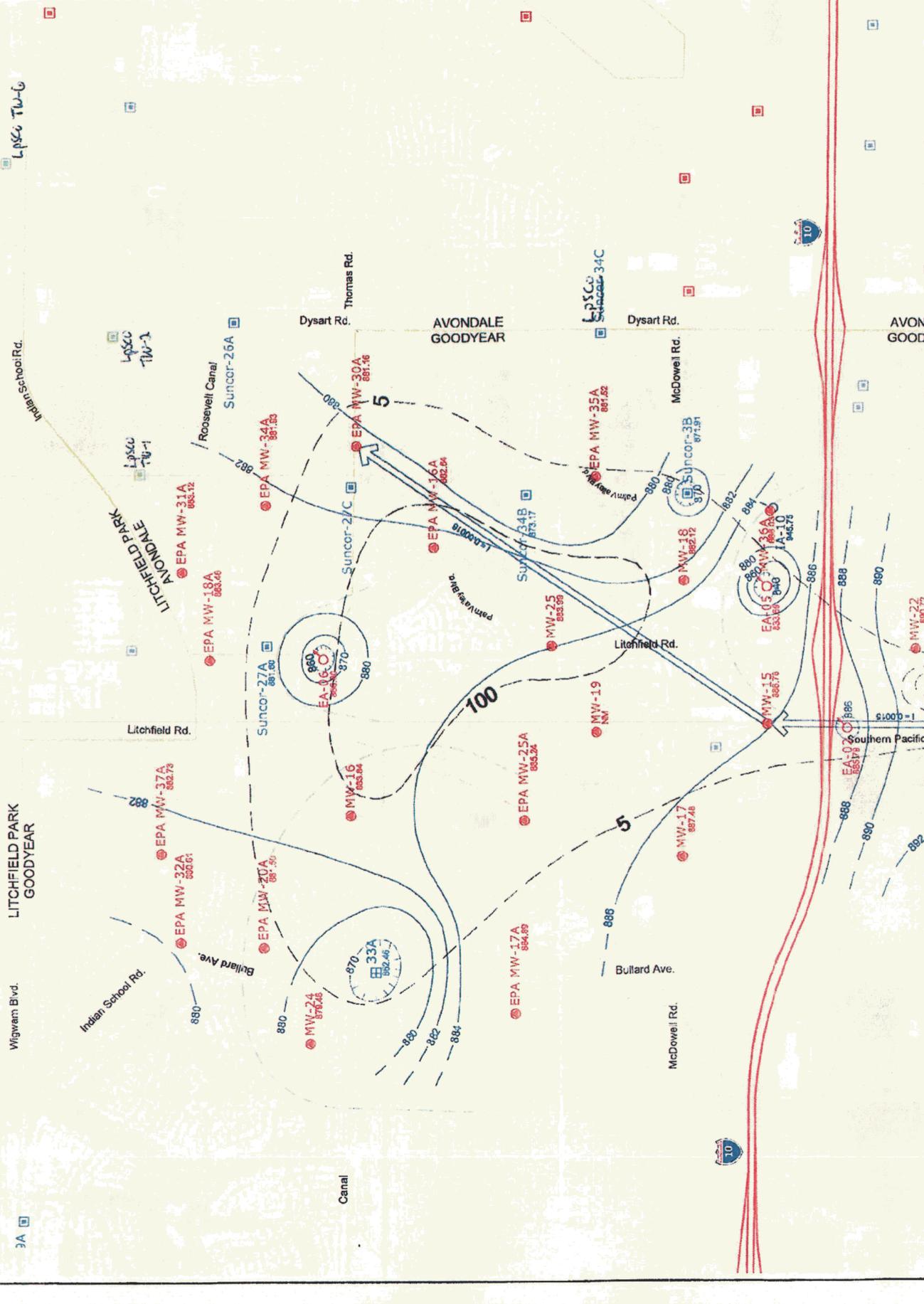


Figure 9

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