

October 9, 2012

TO: Members of the MAG Water Quality Advisory Committee

FROM: Kathryn Sorensen, City of Mesa, Chair

SUBJECT: MEETING NOTICE AND TRANSMITTAL OF TENTATIVE AGENDA

Tuesday, October 16, 2012 - 1:30 p.m.  
MAG Office, Suite 200 - Sagauo Room  
302 North 1<sup>st</sup> Avenue, Phoenix

A meeting of the MAG Water Quality Advisory Committee has been scheduled for the time and place noted above. Members of the Water Quality Advisory Committee may attend the meeting either in person, by videoconference or by telephone conference call. Those attending by videoconference must notify the MAG site three business days prior to the meeting. If you have any questions regarding the meeting, please contact Chair Sorensen or Julie Hoffman at 602-254-6300.

Please park in the garage underneath the building, bring your ticket, and parking will be validated. For those using transit, Valley Metro/Regional Public Transportation Authority will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.

In 1996, the Regional Council approved a simple majority quorum for all MAG advisory committees. If the MAG Water Quality Advisory Committee does not meet the quorum requirement, members who arrived at the meeting will be instructed a legal meeting cannot occur and subsequently be dismissed. Your attendance at the meeting is strongly encouraged. If you are unable to attend the meeting, please make arrangements for a proxy from your entity to represent you.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Jason Stephens at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

TENTATIVE AGENDA

COMMITTEE ACTION REQUESTED

1. Call to Order

2. Agenda Announcements

3. Call to the Audience

An opportunity will be provided to members of the public to address the Water Quality Advisory Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Water Quality Advisory Committee requests an exception to this limit. Please note that those wishing to comment on action agenda items will be given an opportunity at the time the item is heard.

4. Approval of the October 25, 2011 Meeting Minutes

5. Draft MAG 208 Water Quality Management Plan Amendment for the Service Area Expansion of the Litchfield Park Service Company dba Liberty Water Palm Valley and Sarival Water Reclamation Facilities

On July 29, 2011, the City of Glendale sent a letter to MAG requesting that the MAG 208 Water Quality Management Plan be amended to include the service area expansion for the Litchfield Park Service Company dba Liberty Water Palm Valley and Sarival Water Reclamation Facilities. The facilities are located within the Goodyear Municipal Planning Area and would expand their service area to include portions of the Glendale Municipal Planning Area. The facilities are identified in the current

2. For information.

3. For information.

4. Review and approve the October 25, 2011 meeting minutes.

5. For information, discussion, and possible authorization to conduct a public hearing on the Draft MAG 208 Water Quality Management Plan Amendment for the Service Area Expansion of the Litchfield Park Service Company dba Liberty Water Palm Valley and Sarival Water Reclamation Facilities.

MAG 208 Plan with reserve capacity to accommodate the service area expansion. The project is within three miles of the City of Avondale, City of El Mirage, City of Goodyear, City of Litchfield Park, City of Peoria, City of Phoenix, Town of Youngtown, Luke Air Force Base, and unincorporated Maricopa County, and all have indicated that they do not object to the proposed amendment.

The Committee will be requested to authorize that a public hearing be conducted on the Draft 208 Plan Amendment. Please refer to the enclosed material.

6. Water Infrastructure Finance Authority Presentation

The Water Infrastructure Finance Authority (WIFA) is an independent agency of the State of Arizona and is authorized to finance the construction, rehabilitation, and/or improvement of drinking water, wastewater, wastewater reclamation, and other water quality facilities and projects. A presentation will be provided on WIFA's function as a funding source for water/wastewater projects, types of projects funded, and how to apply for the funding.

7. MAG 208 Water Quality Management Plan Update on Hold Until New MAG Socioeconomic Projections are Available

The Maricopa Association of Governments has been revising the Point Source Section of the MAG 208 Water Quality Management Plan to include 35 wastewater treatment plants approved by the MAG Regional Council since the Plan was last updated in 2002. In addition, the 2007 MAG socioeconomic projections and Municipal Planning Areas were included. MAG is currently in the process of developing new socioeconomic projections based on the 2010 Census, which will be available in 2013. At this time, the update to the Point Source

6. For information and discussion.

7. For information and discussion.

Section of the MAG 208 Plan is on hold until the new MAG socioeconomic projections become available.

8. Call for Future Agenda Items

The Chairman will invite the Committee members to suggest future agenda items.

9. Comments from the Committee

An opportunity will be provided for Water Quality Advisory Committee members to present a brief summary of current events. The Committee is not allowed to propose, discuss, deliberate or take action at the meeting on any matter in the summary, unless the specific matter is properly noticed for legal action.

8. For information and discussion.

9. For information.

MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
WATER QUALITY ADVISORY COMMITTEE MEETING

Tuesday, October 25, 2011  
MAG Office Building  
Phoenix, Arizona

MEMBERS ATTENDING

David McNeil, Tempe, Chair	Richard Sacks for Suzanne Grendahl, Scottsdale
Sandra Rode for Goodyear	Kevin Chadwick, Maricopa County
Barbara Chappell, Avondale	Henry Day for John Boyer, Pinnacle West Capital
Ron Whitler for Buckeye	Jim Kudlinski, Salt River Project
Robert Goff, Chandler	Summer Waters, University of Arizona Cooperative Extension
# Dave Emon, El Mirage	Sherrie Logg for Michael Byrd, Salt River Pima-Maricopa Indian Community
* Lonnie Frost, Gilbert	Carole Klopatek, Fort McDowell Yavapai Nation
Doug Kukino for Lawrence Brotman, Glendale	Glenn Stark, Gila River Indian Community
Jake West for Kathryn Sorenson, Mesa	
* Brian Biesemeyer, Peoria	
Randy Gottler, Phoenix	
Greg Homol, Queen Creek	
Rich Williams Sr., Surprise	

\*Those members neither present nor represented by proxy.  
#Attended by telephone conference call.

OTHERS PRESENT

Julie Hoffman, Maricopa Association of Governments	Gerald Copeland, Gerald R. Copeland, PE, RLS
Kara Johnson, Maricopa Association of Governments	Stephen Rot, City of Glendale

1. Call to Order

A meeting of the MAG Water Quality Advisory Committee (WQAC) was conducted on Tuesday, October 25, 2011. David McNeil, City of Tempe, Chair, called the meeting to order at approximately 2:00 p.m. David Emon, City of El Mirage, attended the meeting via telephone conference call.

2. Agenda Announcements

Chair McNeil provided an opportunity for member agencies to report on activities of interest in their agencies.

3. Call to the Audience

Chair McNeil provided an opportunity for members of the public to address the Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG or items on the agenda for discussion, but not for action. He noted that according to the MAG public comment process,

members of the audience who wish to speak are requested to fill out comment cards, which are available on the tables adjacent to the doorways inside the meeting room. Citizens are asked not to exceed a three minute time period for their comments. Chair McNeil noted that no public comment cards had been received.

4. Approval of the November 8, 2010 Meeting Minutes

The Committee reviewed the minutes from the November 8, 2010 meeting. Greg Homol, Town of Queen Creek, moved and Rich Williams Sr., City of Surprise, seconded, and the motion to approve the November 8, 2010 meeting minutes carried unanimously.

5. Chair and Vice Chair Appointments

Julie Hoffman, MAG, stated that in July 2009, the MAG Regional Council approved the MAG Committee Operating Policies and Procedures. According to the policies and procedures, officer positions for technical committees have one-year terms, with possible reappointment to serve up to one additional term, by consent of the respective committee. She noted that the chair and vice chair appointments of the MAG Water Quality Advisory Committee are due to expire on December 31, 2011. Ms. Hoffman commented that typically the vice chair would ascend to the chair position; however, Vice Chair David Iwanski, City of Goodyear, has retired. She stated that MAG is accepting letters of interest for the chair and vice chair positions of the Water Quality Advisory Committee.

Ms. Hoffman noted that letters of interest from MAG member agencies are required for those who wish to be considered for appointment. The letters of interest are to be submitted to Mayor Hugh Hallman, MAG Chair, by Tuesday, November 1, 2011. The appointments will be made by the MAG Executive Committee at its November 14, 2011 meeting.

6. Update to the MAG 208 Water Quality Management Plan

Ms. Hoffman briefed the Committee on the update of the MAG 208 Water Quality Management Plan. She noted that this updated document will incorporate the amendments and small plant review and approvals that have been approved by the MAG Regional Council since the 208 Plan was last updated in 2002. Ms. Hoffman explained that the 21 amendments and six small plant reviews and approvals have added a total of 35 new wastewater treatment plants since the 2002 update. In addition to including the amendments and small plant review and approvals, the update will also incorporate the latest approved Municipal Planning Areas and population projections. This past April, the MAG member agencies were provided with draft descriptions for their jurisdictions. Comments regarding these sections were requested by July 15, 2011. Ms. Hoffman reported that MAG has received a number of changes to the descriptions. She explained that MAG staff has been incorporating these comments into the 208 Water Quality Management Plan document. Ms. Hoffman mentioned that MAG is continuing to receive comments and will include the changes as they are received. Once all of the information is reviewed and incorporated into the plan, a draft will be sent out to the member agencies for final review.

Ms. Hoffman discussed comments received from the jurisdictions. Regarding the population projections, the last MAG approved population projections are from 2007, which was prior to the downturn in the economy. Many of the jurisdictions are reporting and utilizing different population projections. Ms. Hoffman also stated that some jurisdictions are reporting decreased capacity of facilities and a few plants have been eliminated.

Ms. Hoffman stated that at previous meetings, the Committee has discussed including sustainability and goals for reclaimed water in the update. With regard to sustainability, Ms. Hoffman mentioned that in 2010 MAG conducted the Greening Water and Wastewater Infrastructure Workshop. As part of the workshop a roadmap was produced as a resource for utilities. The roadmap assists utilities in reducing energy consumption and chemical use, and how to save financial resources. Ms. Hoffman suggested including the roadmap in an appendix to the 208 Plan update.

Dr. Carole Klopatek, Fort McDowell Yavapai Nation, inquired what major changes will be made to the update. Ms. Hoffman replied that the 35 new wastewater plants and also the elimination of some plants as requested by the jurisdictions are major changes. Dr. Klopatek asked if the 208 amendment process itself was being updated. Ms. Hoffman responded that, no, the 208 amendment process has not been changed.

Chair McNeil referred back to Ms. Hoffman's comments about population projections. Chair McNeil mentioned that many jurisdictions are facing a decrease in flow. He commented that in the City of Tempe even as population remains at a relatively stable level, there has been a decrease in flow due to a combination of conservation programs and the economic downturn. Chair McNeil stated that the City of Tempe has seen a 17 percent reduction in wastewater flow. He added that the flow reduction has led to jurisdictions in the Sub-Regional Operating Group (SROG) and private entities to relook at their Capital Improvement Programs (CIPs) and master plans.

Dr. Klopatek commented on emerging contaminants and inquired about how to address the topic. Chair McNeil responded that the Committee has not had a discussion on the topic of emerging contaminants. He referred to the 208 process and added that a facility has to obtain the necessary permits in order to treat and discharge water. Chair McNeil stated that any regulatory constraints related to emerging contaminants would accordingly be incorporated into the federal and state regulations. Chair McNeil inquired if Dr. Klopatek envisioned incorporating emerging contaminants into the approval process or mentioning the topic in the 208 Plan update. Dr. Klopatek commented that as the laws change, agencies need to be aware of the emerging contaminants regulations and as new plants are proposed that emerging contaminants are addressed.

Chair McNeil discussed the regional wastewater goals and how reclamation is now necessary for sustainability. He mentioned that this update should address the change from a more regional approach to wastewater due to the importance of reclaimed water. Chair McNeil stated that potentially the Committee could incorporate language regarding various emerging regulations and issues related to wastewater that might impact the permitting of plants in the future. He cautioned against including these items into the 208 approval process.

Dr. Klopatek commented on including the issue of emerging contaminants into the 208 process. She discussed having oversight to ensure these issues are addressed. Chair McNeil questioned the Committee's authority to create additional regulatory criteria. Dr. Klopatek discussed federal regulation and making sure that emerging contaminants are addressed with new plants. Summer Waters, University of Arizona Cooperative Extension, commented on the good discussion and indicated that researchers at the University of Arizona are currently studying the issue of emerging contaminants. She stated that a challenge with these updates is constant change. Ms. Waters commented on keeping emerging contaminants on the radar as the federal regulations evolve. She added that there is a lot of activity occurring.

Dr. Klopatek discussed a process for ensuring plants meet the necessary regulations. Chair McNeil indicated that once the jurisdictional updates are incorporated into the plan, the Committee could reconvene for discussion on any additional language to include in the update. Ms. Hoffman noted

that when an amendment goes through the 208 process, it is the jurisdiction in which the facility would be located that brings it forward to MAG. Therefore, each jurisdiction is able to make sure the plant meet their requirements. There are also permit requirements for facilities.

Barbara Chappell, City of Avondale, cautioned the Committee on redundant regulations. Chair McNeil stated that inconsistent criteria would also be a concern. Ms. Hoffman added that MAG is not a regulatory agency.

7. Green Projects and Programs for Water and Wastewater Infrastructure

Chair McNeil invited Committee members to share sustainable initiatives and programs for water and wastewater infrastructure that are occurring within their jurisdictions.

Mr. Williams stated that the City of Surprise is commencing a continued effort to use reclaimed wastewater for open space irrigation. Mr. Williams mentioned that the City of Surprise has some HOA open space areas being irrigated with reclaimed water instead of public water. He also mentioned that the City Hall landscape is now using reclaimed water to irrigate. Mr. Williams mentioned that the City has 18 recharge wells.

Dr. Klopatek stated the Fort McDowell Yavapai Nation is developing a water model that is unique to Fort McDowell, but could have applicable use to other jurisdictions. She noted that Fort McDowell gets its water from the Verde River. Dr. Klopatek stated that the Salt River Project (SRP) statements take several weeks. She indicated that SRP works their model in terms of the legal buckets and entitlements. Dr. Klopatek mentioned that the model being developed uses SRP's data in a forward model that would do forecast work. This forward model would allow the Fort McDowell Yavapai Nation to be more efficient in their water use. Chair McNeil inquired if the different buckets are referring to water rights. Dr. Klopatek clarified that each bucket is a different legal entitlement and accordingly each bucket can only be used in a certain area. She noted that using the current model it was difficult to gauge how much water remains and how much is being utilized. The new model would fine tune how their water distribution system is set up and how efficiently the water is being used. Dr. Klopatek mentioned that the revision has already taken about 6,000 hours of work.

Richard Sacks, City of Scottsdale, stated that Scottsdale currently has a request for proposals entitled Renewable Energy Generation Facility, also called the Water Campus or Municipal Campus. The City is requesting proposals for any green energy generation technology that can yield a maximum of seven megawatt hours of electricity. Mr. Sacks also mentioned that Scottsdale's Water Campus produces a high quality level of water that is either recharged or used for irrigation on golf courses. He noted that this process uses a tremendous amount of electricity.

Greg Homol, Town of Queen Creek, stated that Queen Creek is fully dependent on groundwater. He added that better utilization of the SCADA system has lead to reduced energy costs between the range of 10-15 percent per month. Mr. Homol mentioned that a lot of money and energy can be saved by running well and booster facilities more efficiently. Chair McNeil inquired if Queen Creek brought in a third party to audit. Mr. Homol responded, no, the Town of Queen Creek internally reviewed their facility.

Robert Goff, City of Chandler, stated that Chandler has participated in the Environmental Protection Agency (EPA) Region IX year-long webinar series regarding energy efficiency in water and wastewater facilities. He indicated that as part of that webinar series, Chandler developed a project to implement in their City throughout the year. He noted that Chandler, similar to Queen Creek, is

looking at their operations and is optimizing their water distribution system. Mr. Goff stated that utilizing surface water this year was more cost-effective. The goal of the project was to reduce the number of kilowatt hours from a million gallons by five percent over last year. Mr. Goff noted that the City of Chandler is currently at 4.2 percent reduction due to a rigorous examination of their operations.

Chair McNeil stated that Tempe was able to reduce their energy consumption since their disinfection byproduct formation has decreased significantly due to the nature of total organic carbon (TOC) and efficiencies created internally. Therefore, Tempe did not have to pay as much attention to the storage issue. He commented that the City of Tempe had initiated a reduction in night storage to avoid increasing water age. He added that the City was doing what it could to reduce disinfection byproduct formation so they were reducing storage to very low levels. He noted that their disinfection byproducts are so under control at this point that the City is able to treat more at night and store more. Therefore, Tempe has reduced power consumption through off-peak treatment pumping.

Chair McNeil stated that the project on the forefront for the City of Tempe is the Fats, Oils, and Grease (FOG) Program. Chair McNeil explained that Tempe has been reevaluating, from both a sewer management and energy standpoint, how the City can use FOG from local restaurants and convert it to energy. He noted that the year and a half long study analyzing FOG is to be completed within the next few weeks. Chair McNeil added that the study brought to light two major findings. One finding is that the best use for FOG, collected from restaurants, is to introduce it to sludge digesters to create biogas. Using this information, Chair McNeil noted that the City of Tempe in the long-term may seek to partner with one or more regional jurisdictions to utilize solid digesters to turn FOG into energy. He mentioned that in the short-term the City of Tempe is embarking on a multi-phased approach on FOG collection and maintenance. Chair McNeil noted that this approach will both aid in better management of grease and compel restaurants and haulers to better manage grease, but to also obtain the feedstock. He stated that he will be going to the City Council in less than one month to propose a one-year pilot project, whereby the City would contract with one or more private companies to collect grease from approximately 10-12 percent of Tempe restaurants. Chair McNeil mentioned that the pilot project is planned to be implemented in the beginning of next year. He commented that the City would be able to quantify the grease collected from approximately 75 restaurants to determine how competitive pricing could be offered for grease and how to better serve restaurants with regard to grease collection.

Chair McNeil commented that they are excited about this project of harvesting the feedstock for future renewable energy generation which has really gained traction the last several months. Chair McNeil explained that Tempe restaurants are showing support for this initiative and are committed to stewardship. He added that not only is the restaurant community interested in sustaining the sewer infrastructure, but also seeing a waste product turned into a renewable energy source. Chair McNeil stated that within the next few years, it is the hope that the City may control all FOG maintenance and management with Tempe.

Dr. Klopatek inquired how often FOG is collected. Chair McNeil responded that the prescribed timeline is every 90 days for interceptors and 30 days for grease traps. He noted that the time frame may be dependent on how much waste is produced. Chair McNeil stated that under the FOG project structure, the City would be taking responsibility for cleaning and maintaining restaurant grease traps which removes them from regulatory programs. Accordingly, Chair McNeil noted that through contracts with liquid waste haulers, Tempe could potentially be able to pass on grease maintenance savings of 15-25 percent to the restaurant community. He stated that the grease would be managed

like municipal solid waste. He stated that the City would be able to hold the liquid waste haulers accountable for quality criteria, which has been a problem in the industry.

Ms. Chappel asked where the product will be going. Chair McNeil replied that through contract, the City of Tempe would determine where the FOG goes. He stated that until a renewable energy alternative is established, the FOG will go to the landfill. Chair McNeil commented that the long-term intent is to partner with a jurisdiction who has use for the feedstock to generate renewable energy. The landfill tipping fee would then be reduced dramatically or eliminated altogether. A part of this savings would then be passed on to restaurants and revenue would be generated for the City. Ms. Chappel mentioned that this program would be similar to recycling in that a city can create revenue by selling the renewable energy that is created from the waste product. Chair McNeil replied that the pilot program restaurant locations are in downtown Tempe which is a concentrated area. This concentrated area of restaurants feeds into one 16-inch sewer line that goes into a meter station and the City has years of baseline Chemical Oxygen Demand (COD) and Total Suspended Solids (TSS) data. After the program has been initiated, the City can measure the differences in loading and calculate the cost savings in treatment. Chair McNeil noted that cost savings will be distributed as year-end dividend checks to restaurants. He added that the FOG program is being structured as a big win for Tempe and its restaurants.

Mr. Sacks inquired if the liquid waste haulers would have to provide a receipt to prove that they went to the landfill. Chair McNeil responded that the haulers will be required to provide proof, and the trucks would also be equipped with Global Positioning System equipment. He added that renewable energy aside, Tempe hopes this project will reinvent the paradigm for grease management in the region. It will provide a structure for proper maintenance of grease traps. Mr. Homol commented that the Town of Queen Creek is very interested in this project and potentially partnering in the future.

Chair McNeil noted another finding of the Tempe FOG feasibility study was that the technology of turning brown grease into biodiesel is emerging. The technology to turn brown grease to biodiesel is feasible; however, the cost associated with it and the large quantity needed makes it difficult to actualize for a single jurisdiction. Chair McNeil commented that to make a brown grease to biodiesel project viable, the City of Tempe would need 10 times more restaurants. However, he noted that in the future, the region could potentially discuss a regional approach to creating biodiesel from brown grease. Mr. Homol mentioned that a biodiesel company was building a facility in Chandler. Chair McNeil stated that the company was AZ Biodiesel and they only worked with yellow, not brown, grease. He explained that the City of Tempe was approached by BlackGold Biodiesel and a private investor who were interested in creating a large scale brown grease to biodiesel facility. However, Chair McNeil noted that Tempe alone could not support a large scale brown grease to biodiesel facility based on the amount of brown grease produced in the City, but it may be a possibility once the region is on board.

#### 8. Call for Future Agenda Items

Chair McNeil announced that future meetings will be called to discuss the update to the 208 Plan as needed. With no further comments, Chair McNeil thanked the Committee for participating and called for adjournment of the meeting at 2:45 p.m.



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October 9, 2012

TO: Members of the MAG Water Quality Advisory Committee

FROM: Julie Hoffman, Environmental Planning Program Manager

SUBJECT: DRAFT MAG 208 WATER QUALITY MANAGEMENT PLAN AMENDMENT FOR THE SERVICE AREA EXPANSION OF THE LITCHFIELD PARK SERVICE COMPANY DBA LIBERTY WATER PALM VALLEY AND SARIVAL WATER RECLAMATION FACILITIES

On July 29, 2011, the City of Glendale sent a letter to MAG requesting that the MAG 208 Water Quality Management Plan be amended to include the service area expansion of the Litchfield Park Service Company (LPSCo) dba Liberty Water Palm Valley and Sarival Water Reclamation Facilities. The facilities are located within the Goodyear Municipal Planning Area and would expand their service area to include portions of the Glendale Municipal Planning Area. The facilities are identified in the current MAG 208 Plan with reserve capacity to accommodate the service area expansion. The project is within three miles of the City of Avondale, City of El Mirage, City of Goodyear, City of Litchfield Park, City of Peoria, City of Phoenix, Town of Youngtown, Luke Air Force Base, and unincorporated Maricopa County, and all have indicated that they do not object to the proposed amendment.

#### BACKGROUND INFORMATION

As described in the draft amendment, the City of Glendale has agreed to allow developments within their planning area to receive sewer service from LPSCo dba Liberty Water. Both the Palm Valley and Sarival Water Reclamation Facilities, located in the Goodyear Municipal Planning Area, are identified in the current MAG 208 Plan with an ultimate capacity of 8.2 million gallons per day (mgd). The total ultimate capacity of 16.4 mgd for the two facilities was approved with a reserve capacity that is able to accommodate the .099 mgd projected wastewater flows from the expanded service area.

The Palm Valley Water Reclamation Facility was constructed and placed into service in February 2001. The Sarival Lift Station was constructed in June 2005 to provide interim pumping capacity to the Palm Valley Facility until such time that the flows increase to a level that would support startup and continuous operation of the Sarival Water Reclamation Facility. This amendment would not change the treatment, effluent and waste solids disposal, or any of the other aspects of the facilities as described in the MAG 208 Plan. A copy of the Draft 208 Plan Amendment has been provided. If there are any questions, please contact me at (602) 254-6300.

cc: MAG Intergovernmental Representatives



# MAG 208 Plan Amendment for the Service Area Expansion of the Liberty Water Palm Valley and Sarival Water Reclamation Facilities

Prepared For:

**City of Glendale, AZ**

and

**LPSCo dba Liberty Water**

Prepared By:

**Water Works Engineers**

**July 2012**



7580 N Dobson Rd, Ste 200  
Scottsdale, AZ 85256  
(480) 661-1742



# WATERWORKS ENGINEERS

## PREPARED FOR THE CITY OF GLENDALE AND LPSCo DBA LIBERTY WATER MAG 208 PLAN AMENDMENT FOR THE SERVICE AREA EXPANSION LPSCo dba Liberty Water Palm Valley and Sarival Water Reclamation Facilities

Date: June 23, 2011  
Prepared By: John Matta, P.E.  
Rob Bryant, P.E.



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**Appendices**

Appendix A – MAG 208 Amendment dated February 17, 2006

Appendix B – Letters of No Objection (Sent to Julie Hoffman)

Appendix C – 208 Clean Water Checklist

Appendix D – LPSCo dba Liberty Water Financial Assurance

Appendix E – DMA Functions for MAG 208 Plan Amendment

Appendix F – Certificate of Convenience and Necessity Documents from ACC



July 29, 2011

Julie Hoffman  
Environmental Planner  
Maricopa Association of Governments  
302 N. 1<sup>st</sup> Avenue, Suite 300  
Phoenix, Arizona 85003

Dear Julie,

The City of Glendale has been requested by Liberty Water to support a MAG 208 amendment that would allow Liberty Water to provide sewer service to various subdivisions and facilities proximate to Liberty Water's existing sewer system.

In accordance with the MAG 208 Water Quality Management Plan, the City of Glendale is officially requesting that you initiate the amendment process for the document entitled "Liberty Water – MAG 208 Amendment Service Area Expansion" dated June 23, 2011 and prepared by Water Works Engineers, LLC.

Glendale supports the proposed amendment that will allow Liberty Water to provide sewer service to the following subdivisions and facilities: Bethany Estates North; Bethany Estates South; Dysart Village; Falcon View; Riverside Estates (Maryland 40); Dysart Crossings; and the Heritage Elementary School.

As always, we look forward to working with MAG and appreciate your assistance to facilitate the review and approval process.

Sincerely,

Craig Johnson, P.E.  
Executive Director, Water Services Department  
City of Glendale

Cc:  
Michael D. Weber, P.E.



## **Section 1 - Introduction**

This proposed amendment to the Maricopa Association of Governments 208 Plan (“MAG 208”) provides for an expansion of the service area for the Litchfield Park Service Company dba LPSCo dba Liberty Water (“LPSCo dba Liberty Water”) Palm Valley Water Reclamation Facility (“PVWRF”) and future Sarival Water Reclamation Facility (“Sarival WRF”) in Maricopa County. Various developers have requested sewer service from LPSCo dba Liberty Water for lands lying north of the present LPSCo dba Liberty Water service area, and LPSCo dba Liberty Water has determined that their existing and planned facilities will accommodate these additional flows. The general project area is shown in Figure 1.

LPSCo dba Liberty Water provides wastewater collection and treatment service for all of the City of Litchfield Park and portions of Avondale, Buckeye, Glendale, Goodyear and unincorporated Maricopa County as shown in Figure 1. The PVWRF is in operation to serve the area and future expansion of this facility is currently being reviewed. LPSCo dba Liberty Water also has constructed the Sarival Lift Station to bring wastewater from the western portion of its service area to the PVWRF initially. As flows increase, LPSCo dba Liberty Water plans to either construct, and then expand, the Sarival WRF or expand the PVWRF to provide added service. The series of steps over which these improvements are planned were covered in the MAG 208 Amendment dated February 17, 2006 and approved by MAG. The body of that amendment is contained within Appendix A, and this amendment describes the proposed changes to the approved amendment.

This proposed amendment does not change the plans for treatment, effluent and waste solids disposal, or any of the other aspects of the PVWRF and Sarival WRF as described in the MAG 208 Water Quality Management Plan. It only provides for expanding the service area as shown on Figure 1.

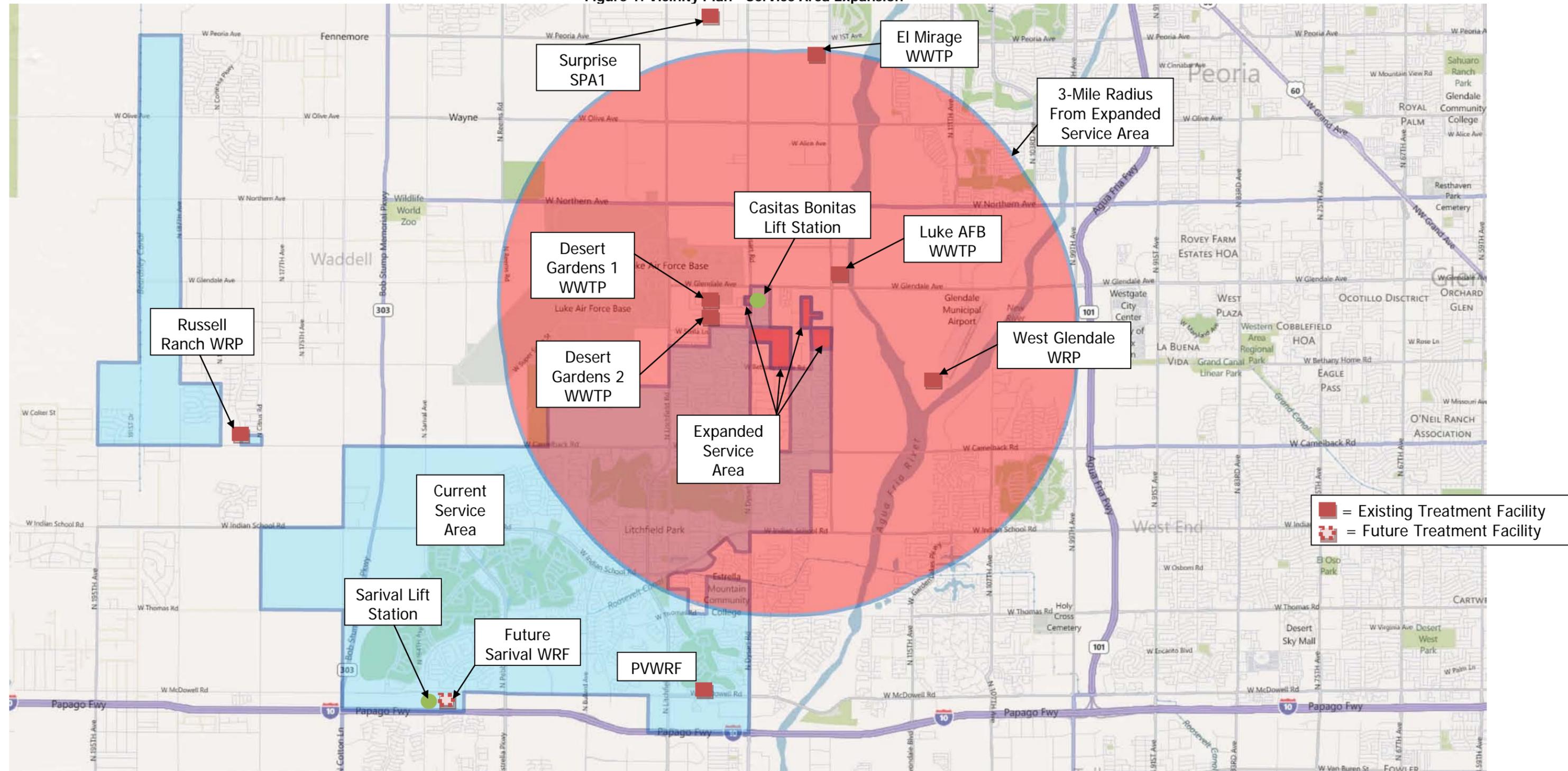
The average day wastewater flows generated from the proposed expanded service area when added to existing flows at LPSCo dba Liberty Water's treatment facility will be less than the average day design flow capacity cited in the 208 Water Quality Management Plan. The ultimate capacities for the PVWRF and Sarival WRF will not increase due to the 38 percent reserve capacity reported in the MAG 208 Amendment dated February 17, 2006.

## **Section 2 – Letters of Sponsorship and No Objection**

As the sponsor of this application, the City of Glendale has provided a letter of sponsorship that is included at the beginning of this document. In addition, the following communities lie within a three mile radius of the service area expansion:

- City of Avondale
- City of El Mirage
- City of Goodyear
- City of Litchfield Park
- City of Peoria
- City of Phoenix
- Town of Youngtown
- Luke Air Force Base
- Maricopa County

Figure 1: Vicinity Plan - Service Area Expansion



These communities have been contacted and requested to submit a "Letter of No Objection" to the proposed amendment. These letters are included in Appendix B.

### **Section 3 – 208 Clean Water Act Checklist**

The 208 Clean Water Act Checklist has been completed for this proposed service area expansion and is included in Appendix C.

### **Section 4 – 20-Year Needs Assessments**

#### ***4.1 General Background and Project History***

The City of Glendale is the Designated Management Agency for the Glendale planning area. As the proposed service area expansion for LPSCo dba Liberty Water is within the Municipal Planning Area (MPA) for Glendale, the City of Glendale has sponsored this 208 Amendment. To this end, the City of Glendale requests that the MAG 208 Plan be amended to include the service area expansion for LPSCo dba Liberty Water as illustrated in Figure 1. Other jurisdictions within three miles of the service area expansion (Avondale, El Mirage, Goodyear, Litchfield Park, Luke Air Force Base, Maricopa County, Peoria, Phoenix, and Youngtown) have been requested to provide letters stating that they have no objection to the proposed amendment.

LPSCo dba Liberty Water is a privately-owned and operated wastewater operator providing wastewater collection and treatment service for the City of Litchfield Park and portions of Avondale, Buckeye, Glendale, Goodyear and unincorporated Maricopa County. The general area is shown in Figure 1. LPSCo dba Liberty Water's facilities, plans, and service area are described in the MAG 208 Water Quality Management Plan, October 2002 and updated by the Amendment dated February 17, 2006. The existing service area for the PVWRF is shown in Figure 1. LPSCo dba Liberty Water has adequate authority to perform the function enumerated in the Clean Water Act Section 208 (c)(2)(A)-(I), as discussed in Appendix C. LPSCo dba Liberty Water operates in the areas of the agencies mentioned above with their cooperation and approval.

#### ***4.2 Existing Service Area***

LPSCo dba Liberty Water currently provides wastewater collection and treatment service for the City of Litchfield Park and portions of Avondale, Glendale, Goodyear and unincorporated areas of Maricopa County. The LPSCo dba Liberty Water service area is predominately made up of master planned communities such as Palm Valley, Pebble Creek, Wigwam Creek, Litchfield Greens and Dreaming Summit. This service area is shown in Figure 1.

#### ***4.3 Existing Facilities***

The existing facilities include the PVWRF, located at 14222 W. McDowell Road, which was constructed and placed into service in February 2001. LPSCo dba Liberty Water prepared an Aquifer Protection Permit amendment for the expansion of PVWRF from 4.1 to 5.1 MGD was issued by ADEQ on April 13, 2012. This facility was designed primarily to serve all residential

and commercial development from McDowell Road on the south to Camelback Road on the north and from Cotton Lane on the west to Dysart Road on the east.

## ***4.4 Previously Planned Facilities***

### **4.4.1 Collection System**

This proposed amendment does not detail any existing collection system components in the LPSCo dba Liberty Water system since they will not require expansion as a result of this service area expansion.

### **4.4.2 Pumping Facilities**

LPSCo dba Liberty Water has completed the construction of the Sarival Lift Station, which will provide interim pumping capacity to the PVWRF from the northwest service area until such time that flows increased to a level that would support startup and continuous operation of a second treatment facility, the Sarival WRF.

The basis for this plan is described in the earlier February 2006, 208 Plan Amendment, found in Appendix A. The initial design and first phase construction of the Sarival Lift Station is designed to provide the following pumping capacity:

- Average Daily Flow: 2.0MGD
- Peak Day Flow: 4.2MGD
- Peak Hour Flow: 6.5MGD

The initial construction phase of the Sarival Lift Station will provide sewer service for up to 6,250 residential units by diverting up to 2.0 MGD average daily flow to the PVWRF through a newly constructed 16-inch ductile iron force main.

Once the trigger flow rate of 1.8 MGD is reached at this facility, construction will begin on the lift station expansion.

An additional lift station with retention tank was added at the southeast corner of the intersection for Dysart Road and Glendale Avenue in 2004. This lift station (Casitas Bonitas Lift Station) was designed for an average daily flow of 0.45MGD. At this flow rate, the associated retention tank can accommodate 30 minutes of storage. Thereby avoiding peak flows overloading the downstream collection system.

### **4.4.3 Treatment Facilities**

The Sarival WRF will be located west of Sarival Road on the south side of McDowell Road and is planned to treat all residential and commercial sewer flows west of Pebble Creek Parkway between McDowell Road to the south and Bethany Home Road to the north. This facility is included in the MAG 208 Water Quality Management Plan.

#### **4.4.4 Facility Capacity**

The Palm Valley facility Phase I has an average day capacity of 4.1 MGD with a second phase expansion planned to 5.1 MGD, with a full buildout capacity of 8.2 MGD. The Sarival facility will be constructed in appropriate phases also with a full build out capacity of 8.2 MGD. The existing PVWRF will be capable of treating the current wastewater flows from the existing LPSCo dba Liberty Water service area with a 19.1% reserve capacity for projection limitations and modifications from the assumed modeling land uses, as reported in the February 17, 2006, 208 Amendment (Appendix A). The projected wastewater flows will be treated solely at PVWRF with development of certain areas dictating actual facility construction and expansion schedules. The current capacity of the PVWRF is 4.1 MGD. The Sarival WRF is yet to be constructed.

#### **4.4.5 Water Reclamation Facility Description**

The PVWRF treatment process is an activated sludge process utilizing sequencing batch reactor (SBR) technology. The treatment plant includes screening, grit removal, anoxic/aerobic biological nutrient removal, Ultra-Violet (UV) disinfection, and disk filtration.

Sarival WRF will be designed in the future to Class A+ effluent standards and unclassified biosolids. As technologies are continuously evolving and progressing, a specific treatment technology has not been selected but design will be in accordance with the latest ADEQ standards.

Wastewater is treated to exceed the current ADEQ Class A+ effluent requirements. Effluent disposal is accomplished through golf course and agricultural irrigation. There are currently four 18-hole golf courses and a 9-hole golf course served by LPSCo dba Liberty Water with zero future courses planned and numerous public parks, which may be converted to reclaimed water irrigation. LPSCo dba Liberty Water plans to provide the reclaimed water at less cost than current groundwater or surface water prices.

Effluent from the treatment facilities will be stored in golf course lakes and water feature amenities then distributed as needed for irrigation. It is estimated that the irrigation demand in the North Planning Area will not require as much reclaimed water as will be produced. Therefore, a secondary discharge system will be developed for both plants to allow for groundwater recharge of the underlying aquifer. An AZPDES permit was obtained for the RID canal discharge for the PVWRF. Raw wastewater is expected to be nearly 100% residential and light commercial. Industrial service connections will be required to comply with all pretreatment requirements.

Both facilities as currently planned will generate waste sludge. The current PVWRF and future Sarival WRF are intended to have unclassified sludge as defined by EPA Title 40 CFR Part 503.

Biosolids will be either stored and sold or landfilled for disposal. However, there will be an opportunity to use Sarival WRF as a biosolids processing plant for both facilities once it is

completed. This will reduce environmental impacts and aesthetic concerns in the vicinity of PVWRF.

Operation and maintenance of the sewage system will be in accordance with LPSCo dba Liberty Water procedures. LPSCo dba Liberty Water will provide the services in accordance with the current regulations of the EPA, ACC, ADEQ, ADWR, MCESD, City of Goodyear, City of Glendale, and any other regulatory agencies having jurisdiction.

Further details about the treatment processes, effluents, and biosolids handling are found in the February 17, 2006, 208 Amendment in Appendix A and are unchanged by this amendment.

**4.4.6 Pretreatment Requirements**

The Code of Federal Regulations Part 403 Section 403.8 states "any Publicly Owned Treatment Works (POTW) with a total design flow of 5 million gallons per day and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards, will be required to establish a pretreatment program". The existing PVWRF is not currently required to comply with pretreatment requirements since there are no industrial users discharging into the collection system. If industrial users are added to the service area of PVWRF or the planned Sarival WRF, a pretreatment program will be developed with the industrial user being subject to pretreatment standards as regulated by the EPA.

**4.5 Population and Wastewater Flow Estimates**

Population estimates and resulting wastewater flows for the proposed service area expansion are shown in the following table. These projections were obtained from individual design reports and population projections for each property listed below. This additional service area is wholly contained within Regional Analysis Zone (RAZ) 255.

**Table 1: Population and Flow Estimates**

<b>Single Family Property</b>	<b># of Lots</b>	<b>Density</b>	<b>Projected Population</b>	<b>Projected Flow (gpd)</b>
Bethany Estates North	34	3.2 people / lot	110	11,000
Bethany Estates South	28	3.2 people / lot	90	9,000
Dysart Village	39	3.2 people / lot	125	12,500
Falcon View	64	2.67 people / DU	171	17,100
Riverside Estates (Maryland 40)	80	3.2 people / lot	260	26,000
Subtotal Single Family:	245		756	75,600

Other	Acres	Flow	Projected Population	Projected Flow (gpd)
Dysart Crossings	3	1,500 gal/ac/day	N/A	4,500
Heritage Elementary School	7.1	18,560 gpd	N/A	18,560
Subtotal Commercial/Multi Family:	10.1			23,060
<b>Total Project Wastewater Flow (MGD) =</b>			<b>0.099</b>	

LPSCo dba Liberty Water is actively managing these additional connections to the existing sewer collection system. In addition, LPSCo dba Liberty Water independently verifies the ability of the collection system to convey these additional average and peak loads within the existing system (no sewer line shall exceed d/D of 0.75 during peak flow events) through modeling of their system. This model is updated as new users approach LPSCo dba Liberty Water concerning connection and service.

#### **4.6 Newly-Proposed Facilities**

As mentioned above, the LPSCo dba Liberty Water sanitary sewer collection system has been designed to serve the needs of the proposed expanded service area plus additional properties.

The properties within the additional service area are comprised of developments with installed infrastructure and developments that have not installed infrastructure yet. The following table summarizes the current condition of these subject properties.

**Table 2: Property Infrastructure Status**

Single Family Property	Installed Infrastructure
Bethany Estates North	No
Bethany Estates South	Yes
Dysart Village	Yes
Falcon View	No
Riverside Estates (Maryland 40)	No
Other	Installed Infrastructure
Dysart Crossings	Yes
Heritage Elementary	Yes

The planned sanitary sewer collection system will be installed as necessary to accommodate future development.

#### **4.7 Permitting Requirements**

The expansion of the service area under this amendment will not require any ADEQ issued permits. Once development needs warrant the construction of these sanitary sewer collection lines, Approvals to Construct (ATC) and Approvals of Construction (AOCs) will be obtained from Maricopa County Environmental Services Department (MCESD).

Construction activities for the sewer line will require a Stormwater Pollution Prevention Plan, which is in place and maintained by the Contractor performing the construction.

## **Section 5 – Construction**

### ***5.1 Construction, Operation, and Maintenance Responsibility***

LPSCo dba Liberty Water will develop and implement the plan for the construction/expansion and operation of the PVWRF, the Sarival WRF, Casita Bonitas Lift Station, and the Sarival Lift Station and will be solely responsible for funding the projects.

Each developer will undertake construction of the sanitary sewer facilities (which are mostly complete in this area) for the expanded service area through their own funding by contributions. Upon completion and acceptance, these constructed facilities will become the property of LPSCo dba LPSCo dba Liberty Water who will own, operate and maintain these sewer collection facilities.

### ***5.2 Sources of Construction Pollution***

The construction of the sanitary sewer collection facilities will not be a significant source of pollution. Sources of pollution from the construction sites are expected to be from fugitive dust and construction equipment exhaust emissions.

A Dust Permit will be obtained from MCESD and appropriate measures will be performed to reduce dust (routine spraying, sprinkler irrigation, dust monitors, etc).

Erosion control measures during construction and grading will be implemented to prevent potential storm water runoff to water bodies. The contractor will be required to maintain a clean, safe working environment and to abide by all rules and regulations covering storage, use, and disposal of hazardous materials.

## **Section 6 – Financing and Other Actions to Implement Plan**

### ***6.1 Financing Capability to Construct the Facilities***

LPSCo dba Liberty Water has made financial plans for the construction and operation of the treatment plants. The new facilities will be constructed using private, developer/development, and other funding as deemed necessary.

LPSCo dba Liberty Water will develop and implement the plan for the construction and operation of the PVWRF, the Sarival WRF and related services areas. LPSCo dba Liberty Water will be responsible for obtaining the funding of the projects. Both facilities will also be funded with moneys from collected LPSCo dba Liberty Water connection fees from new developments.

No adverse financial constraints are anticipated for either of the treatment plants. See Appendix D for LPSCo dba Liberty Water's 2009 and 2010 financial balance sheet and income statement for Litchfield Park Service Company.

## **Section 7 – Impacts and Implementation Plan**

This service area expansion will provide wastewater collection service to communities and businesses in the proposed service area. This expansion will not negatively impact any existing facilities/certificated areas.

### ***7.1 Impact of the Proposed Service Area Expansion on the WWTP Capacity***

The calculated increase in wastewater flow (0.099 MGD) is not anticipated to negatively impact the treatment performance of the PVWRF as it is currently operating at 84% of its rated capacity. In addition, LPSCo dba Liberty Water has begun the process of expanding PVWRF through permitting and preliminary design.

## **Section 8 – Public Participation**

As part of the MAG Water Quality Management Plan Amendment Process, MAG, with the cooperation of the City of Glendale, is responsible for ensuring that the following actions are implemented after submittal of the draft 208 Amendment:

- Notify all parties of a public hearing on the 208 Amendment by sending notices to interested parties at least 30 days prior to the public hearing. The notice will include the date, time, subject and location of the public hearing for the 208 Amendment.
- Notify public at least 45 days in advance of the public hearing by advertising in a publication. The notice will include the date, time, subject and location of the public hearing for the 208 Amendment.
- Notify public that draft amendments are available for public viewing 30 days before the hearing. This notice will include the location, days, and time of availability.
- Submittal of an affidavit of publication of the public notice.

**APPENDIX A**  
MAG 208 Amendment dated February 17, 2006

# **DRAFT**

**Application for  
Maricopa Association  
of Governments**

**Prepared for the  
City of Glendale,  
Town of Buckeye  
and Maricopa County  
to expand the  
service area for the  
Litchfield Park  
Service Company  
Palm Valley and Sarival  
Water Reclamation  
Facilities**

**Prepared by  
WOOD/PATEL  
August 30, 2005  
Revised February 17, 2006**



**SERVICE AREA EXPANSION FOR THE  
LITCHFIELD PARK SERVICE COMPANY  
PALM VALLEY AND SARIVAL WATER RECLAMATION FACILITIES  
DRAFT 208 AMENDMENT**

August 30, 2005

Revised February 17, 2006

WP #042027

*Prepared for:*

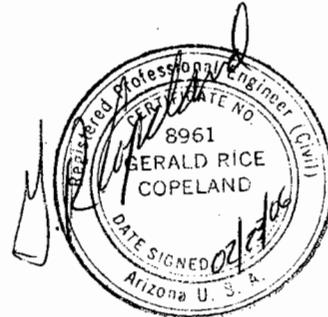
City of Glendale  
5580 West Glendale Avenue  
Glendale, AZ 85301

Town of Buckeye  
100 North Apache  
Buckeye, AZ 85326

Maricopa County  
Environmental Services Department  
Water and Waste Management Division  
1001 North Central Avenue  
Suite 150  
Phoenix, AZ 85004

*Prepared by:*

Wood, Patel & Associates, Inc.  
2051 West Northern Avenue  
Suite 100  
Phoenix, AZ 85021  
*Phone:* (602) 335-8500  
*Fax:* (602) 335-8580



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## APPENDICES

APPENDIX A – August 2000 208 Plan Amendment

APPENDIX B – MAG 208 Water Quality Management Plan, October 2002

APPENDIX C – White Tank Mountain Regional Sewer Solution

APPENDIX D – Aquifer Protection Permit Application

APPENDIX E – MAG Regional Analysis Zones and Population Projections

APPENDIX F – LPSCo Financial Assurances

## EXHIBITS

Exhibit 1      Project Area (Portion of Maricopa County)

Exhibit 2      Existing LPSCo Service Area

Exhibit 3      Proposed Service Area Expansion

Exhibit 4      Properties Served by This Expansion

N:\2004\042027\Project Support\MAG 208 Amendment\208 Amendment Report 010606.doc

## EXECUTIVE SUMMARY

This proposed amendment to the MAG 208 Plan provides for an expansion of the service area for the Litchfield Park Service Company (LPSCo) Palm Valley and Sarival Water Reclamation Facilities in Maricopa County. A consortium of developers organized as the Northwest Valley Development Group (NVDG) has requested sewer service from LPSCo for lands lying north and west of the present LPSCo service area, and LPSCo has determined that their existing and planned facilities will accommodate those added flows. The general project area is shown in Exhibit 1.

LPSCo provides wastewater collection and treatment service for all of the City of Litchfield Park and portions of Avondale, Glendale, Goodyear and unincorporated Maricopa County as shown in Exhibit 2. The Palm Valley Wastewater Reclamation Facility (PVWRF) is in operation to serve the area and future expansion of this facility is planned. LPSCo also has constructed the Sarival Lift Station to bring wastewater from the western portion of its service area (and the expanded area covered by this proposed amendment) to the PVWRF initially. As flows increase, LPSCo plans to construct, and then expand, the Sarival Wastewater Reclamation Facility to provide added service. The series of steps over which these improvements are planned were covered in the MAG 208 Amendment dated August 28, 2000 and approved by MAG in 2001. The body of that amendment is contained here in Appendix A, and this amendment describes the proposed changes to the approved amendment. The earlier amendment is incorporated in the current MAG 208 Water Quality Management Plan dated October 2002.

This proposed amendment does not change the plans for treatment, effluent and waste solids disposal, or any of the other aspects of the Palm Valley and Sarival Water Reclamation Facilities as described in the MAG 208 Water Quality Management Plan. It only provides for expanding the service area as shown on Exhibit 3.

The average day wastewater flows generated from the expanded service when added to existing flows to LPSCo's treatment facilities will be less than the average day design flow capacity of those facilities cited in the 208 Water Quality Management Plan. The ultimate capacities for the Palm Valley and Sarival Water Reclamation Facilities will not increase due to the 38 percent reserve capacity reported in the August 2000 Amendment to the 208 Water Quality Management Plan.

## LETTERS OF AUTHORITY, SPONSORSHIP, AND NO OBJECTION

Two communities lie within three miles of the service area expansion: Surprise and Goodyear. The City of Glendale, Town of Buckeye, and Maricopa County have requested that the MAG 208 Plan be amended to include the service area expansion for the Litchfield Park Service Company Palm Valley and Sarival Water Reclamation Facilities. The other cities have been contacted and requested to submit a “letter of no objection” to the proposed amendment, and their letters are also included in this Section.



September 9, 2005

Ms. Julie Hoffman  
Environmental Planner  
Maricopa Association of Governments  
302 N. 1<sup>st</sup> Avenue, Suite 300  
Phoenix, Arizona 85003

FAX 602-254-6490

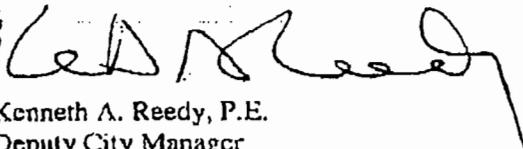
Subject: 208 Plan Amendment in Western Glendale Annexation Area

Dear Julie,

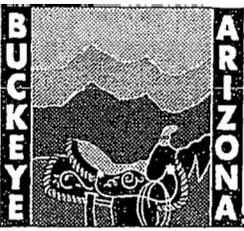
In accordance with the MAG 208 Water Quality Management Plan, the City of Glendale is officially requesting that you initiate the amendment process in accordance with the 'Litchfield Park Service Company Regional Sanitary Sewer 208 Amendment' dated August 30, 2005 prepared by Wood Patel (WP#04027). Glendale is interested in the provision of sewer service to the Savannah subdivision and other areas north of Camelback Road west of Cotton Lane by Litchfield Park Service Company.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Plan Amendment.

Sincerely,



Kenneth A. Reedy, P.E.  
Deputy City Manager



Town of Buckeye

RECEIVED

JAN 17 2006

WOOD/PATEL

January 13, 2006

Ms. Julie Hoffman  
Environmental Planner  
Maricopa Association of Governments  
302 N. 1<sup>st</sup> Avenue, Suite 300  
Phoenix, Arizona 85003

Fax 602-254-6490

Re: MAG 208 Plan Amendment in Eastern Buckeye Area

Dear Julie,

In accordance with the MAG 208 Water Quality Management Plan, the Town of Buckeye is officially requesting that you initiate the amendment process in accordance with the "Litchfield Park Service Company Regional Sanitary Sewer 208 Amendment" dated August 30, 2005, prepared by Wood Patel (WP #04027). Buckeye is interested in the provision of sewer service to the areas north of Camelback Road and east of Jackrabbit Road and interim service within the Town in this vicinity from Litchfield Park Service Company.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Plan Amendment.

Sincerely,

Carroll Reynolds, P.E.  
Town Manager

Cc: Tim Goodrich  
Dave Violette



# Maricopa County

Environmental Services  
Water and Waste Management Division

RECEIVED

JAN 25 2006

WOOD/PATEL

0 J. Central Ave., Suite 150  
Phoenix, AZ 85004  
Phone: (602) 506-6666  
Fax: (602) 506-6925  
Toll-free: 1-800-602-6704  
www.maricopa.gov/envsvc

January 23, 2006

Maricopa Association of Governments  
302 North 1<sup>st</sup> Avenue, Suite 300  
Phoenix, AZ 85003

Attention: Ms. Lindy Bauer, Environmental Program Coordinator

Re: Litchfield Park Service Company, Revised Service Area  
**Clean Water Act, MAG 208 Amendment**

Dear Ms. Bauer:

Wood, Patel & Associates, Inc. has submitted a proposed MAG 208 Amendment Application dated August 30, 2005, with revisions dated November 15, 2005. The proposed Amendment is for an expansion of the Litchfield Park Service Company (LPSCo) service area to include lands that are primarily west of Perryville Road from Peoria Avenue south to Camelback Road. The lands include: the east half of T3N, R2W, Sections 28 and 33; the easterly half of T2N, R2W, Sections 4 and 9; T2N, R2W, Section 16; and parcels within T2N, R2W, Section 15.

The expanded area will be served by a regional gravity sewer that begins on Camelback Road west of Perryville Road and flows east along Camelback Road to Citrus Ave.; thence south along Citrus Ave. to Indian School Road; then east along Indian School Road to Cotton Lane; thence south along Cotton Lane to Interstate 10; and thence east to the existing Sarival Lift Station. The lift station will provide an average 2.0 MGD interim pumping to the Palm Valley Water Reclamation Facility until the Sarival WRF is constructed, as described in the October 2002, MAG 208 WQMP.

The proposed sewer will pass immediately south of the Russell Ranch WWTP, a facility that is owned and operated by Arizona American Water. The Russell Ranch facility was approved by the Department with the understanding that it would connect to a regional WWTP when such a facility becomes available. The proposed sewer will provide that opportunity.

The proposed service area revision complies with the MAG 208 Review and Approval Process under the MAG 208 Areawide Water Quality Management Plan. The project is not in conflict with Maricopa County plans for the area and it is acceptable, provided that LPSCo agrees to serve to the Russell Ranch WWTP, subject to the parties resolving all related regulatory, legal, and financial matters.

Please note that the Department has not reviewed, nor approved, the design of the facilities as part of the 208 review. Any technical issues that remain will need to be resolved during the design phase of the project. Approval to Construct (ATC) and Approval of Construction (AOC) must be obtained from this Department prior to start of

January 23, 2006  
Ms. Lindy Bauer  
MAG 208 Amendment Application for  
Litchfield Park Service Company, Revised Service Area  
Page 2 of 2

construction and startup, respectively, of all treatment, discharge, recharge, and reuse facilities, including all conveyance facilities and final end user facilities.

If you have any questions or comments, please feel free to contact Mr. Kenneth James, PE, or myself at 506-6666.

Sincerely,



Dale Bodiya, P.E.  
Acting Manager, Water and Waste Management Division

cc: Dave Violette, Wood, Patel & Associates, 2051 W. Northern Ave., Suite 100,  
Phoenix, AZ 85021  
Justin Rundle, Arizona American Water, 19820 N. 7th St., Suite 201  
Phoenix, AZ 85024  
Utilities Division - Engineering Section, Arizona Corporation Commission,  
1200 W. Washington, Phoenix, AZ 85007-2996  
File



October 6, 2005

Ms. Julie Hoffman  
Maricopa Association of Governments  
302 North 1<sup>st</sup> Avenue, Suite 300  
Phoenix, AZ 85003

Subject: MAG 208 Amendment – No Objection Letter

Dear Ms. Hoffman:

The Litchfield Park Service Company (LPSCo) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for Goodyear but within three miles of it as shown in the current 208 Plan. Goodyear has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely,

*Brin Dalke for*  
*ACM*  
Stephen Cleveland  
City Manager

*Proud past. Vibrant future!*

City Attorney's Office  
190 N. Litchfield Road P.O. Box 5100 Goodyear, Arizona 85338  
623-882-7227 Fax 623-882-7230 1-800-872-1749 TDD 623-932-6500  
[www.goodyearaz.gov](http://www.goodyearaz.gov)



**Water Services Department**  
12425 West Bell Road  
Suite D-100  
Surprise, Arizona 85374-9002  
Phone 623-875-4290 / TDD 623-875-4208  
Fax 623-583-2892

October 20, 2005

Ms. Julie Hoffman  
Maricopa Association of Governments  
302 North 1<sup>st</sup> Ave, Suite 300  
Phoenix, AZ 85003

**RE: MAG 208 Amendment – No Objection Letter**

Dear Ms. Hoffman:

The Litchfield Park Service Company (LPSCo) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for Surprise but within three miles of it as shown in the current 208 Plan. Surprise has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely,



Rich Williams, Sr.  
Water Services Director

Cc: file

## CLEAN WATER ACT CHECKLIST

Section 208 of the Clean Water Act governs the generation, adoption, and amendment of the regional water quality management plans, called "208 Plans". The following checklist lists the requirements of a 208 Plan amendment and how this report addresses them.

### 208 AMENDMENT CHECKLIST Section 208 Clean Water Act 40 CFR Part 103.6

REQUIREMENT	PROVIDE BRIEF SUMMARY OF HOW REQUIREMENTS ARE ADDRESSED	ADDRESSED ON PAGE:
<b>AUTHORITY</b>		
Proposed Designated Management Agency (DMA) shall self-certify that it has the authorities required by Section 208(c) (2) of the Clean Water Act to implement the plan for its proposed planning and service areas. Self-certification shall be in the form of a legal opinion by the DMA or entity attorney.	Not applicable LPSCo is not a DMA	Not applicable
<b>20-YEAR NEEDS</b>		
<i>{Clearly describe the existing wastewater treatment (WWT) facilities:}</i>		
Describe the WWT facilities.	These are described in the August 2000 208 Amendment	Appendix A
Show WWT certified and service areas for private utilities and sanitary district boundaries if appropriate.	The service area expansion will not overlap WWT certified and service areas for private utilities and sanitary district boundaries	Exhibit 3
<i>{Clearly describe alternatives and the recommended WWT plan:}</i>		
Provide POPTAC population estimates over the 20-year planning period.	The estimated population for the service area expansion is 29,939 persons.	Page 6
Provide wastewater flow estimates over the 20-year planning period.	The estimated average day flow from the service area expansion is 3.0 MGD	Pages 6-7
Illustrate the WWT planning and service areas.	The existing service area is described in the August 2000 208 Amendment. This document describes only the proposed expansion.	Exhibit 3
Describe the type and capacity of the recommended WWT Plant.	This amendment does not include any recommended WWT Plants. Those are contained in the August 2000 208 Amendment	Appendix A

Identify water quality problems, consider alternative control measures, and recommend solution for implementation.	No water quality problems are expected to occur as a result of this service area expansion. Refer to the August 2000 208 Amendment regarding treatment.	Appendix A
If private WWT utilities with certificated areas are within the proposed regional service area, define who (municipal or private utility) serves what area and when. Identify whose sewer lines can be approved in what areas and when.	LPSCo will own and operate the sewage collection system in the proposed service area.	Page 7
Describe method of effluent disposal and reuse sites (if appropriate).	Effluent disposal is to be accomplished through golf course and agricultural irrigation for the two facilities. A secondary discharge system will be developed for both plants to allow for groundwater recharge of the underlying aquifer. An AZPDES permit will be required for the RID canal discharge proposed for the Sarival WRF.	Page 4, Appendix A
If Sanitary Districts are within a proposed planning or service area, describe who serves the Sanitary Districts and when.	LPSCo will own and operate the sewage collection system in the proposed service area.	Page 7
Describe ownership of land proposed for plant sites and reuse areas.	Covered in the August 2000 208 Amendment.	Appendix A
Address time frames in the development of the treatment works.	Palm Valley WRF, Phase I, 4.1 MGD 2001; Phase II, 4.1 MGD 2012. Sarival WRF Phase I, 4.1 MGD 2006; Phase II, 4.1 MGD 2016.	Page 7
Address financial constraints in the development of the treatment works	This amendment does not include any treatment recommendations. Those were contained in the August 2000 208 Amendment.	Appendix A
Describe how discharges will comply with EPA municipal and industrial storm water discharge regulations (Section 405, CWA).	Site-specific storm water will be retained on site for up to 100-year storm events.	Page 8, Appendix A
Describe how open areas and recreational opportunities will result from improved water quality and how those will be used.	The use of high quality effluent for irrigation will reduce the demand for groundwater.	Appendix A
Describe potential use of lands associated with treatment works and increased access to water-based	Not applicable	Not applicable

recreation, if applicable.		
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<b>REGULATIONS</b>		
Describe types of permits needed, including NPDES, APP, and reuse.	None required for the service area expansion. A Permit to Construct has been obtained for the Regional Sanitary Sewer.	Page 7
Describe restrictions on NPDES permits, if needed, for discharge and sludge disposal.	The treated municipal wastewater point discharge from the facilities will be used for emergency only and will not be for daily operations	Appendix A
Provide documentation of communication with ADEQ Permitting Section 30 to 60 days prior to public hearing regarding the need for specific permits.	Not applicable	Not applicable
Describe pretreatment requirements and method of adherence to requirements (Section 208 (b) (2), CWA).	Raw wastewater is expected to be nearly 100% residential & light commercial. Industrial service connections will be required to comply with all pretreatment requirements.	Page 5
Identify, if appropriate, specific pollutants that will be produced from excavations and procedures that will protect ground and surface water quality (Section 208(b) (2) (K) and Section 304, CWA).	Not applicable	Not applicable
Describe alternatives and recommendation in the disposition of sludge generated. (Section 405 CWA)	This amendment will not affect treatment in any way - only service area.	Page 5, Appendix A
Define any nonpoint issues related to the proposed facility and outline procedures to control them.	None anticipated	Not applicable
Describe process to handle all mining runoff, orphan sites and underground pollutants, if applicable.	Not applicable	Not applicable
If mining related, define what specialized procedures will be initiated for orphan sites, if applicable.	Not applicable	Not applicable
If mining related, define what specialized procedures will be initiated for orphan sites, if applicable.	Not applicable	Not applicable

<b>CONSTRUCTION</b>		
Define construction priorities and time schedules for initiation and completion.	A service area expansion only is covered by this amendment. The Regional Sanitary Sewer is	Page 8

	scheduled for completion in April 2006	
Identify agencies that will construct, operate and maintain the facilities and otherwise carry out the plan.	LPSCo will be responsible for construction, operation, and maintenance.	Page 9
Identify construction activity-related sources of pollution and set forth procedures and methods to control, to the extent feasible, such sources.	The construction of the Regional Sanitary Sewer required a Stormwater Pollution Prevention Plan to control construction-related pollution..	Page 8

**FINANCING AND OTHER MEASURES NECESSARY TO CARRY OUT THE PLAN**

If plan proposes to take over certificated private utility, describe how, when and financing will be managed.	Not applicable	Not applicable
Describe any significant measure necessary to carry out the plan, e.g., institutional, financial, economic, etc.	The NVDG will fund construction of the Regional Sanitary Sewer and dedicate it to LPSCo to own and operate.	Appendix F
Provide financial information to assure DMA has financial capability to operate and maintain wastewater system over its useful life.	LPSCo has provided its current financial statements.	Appendix F
Describe proposed method(s) of community financing.	No community financing involved.	Not applicable
Provide a time line outlining period of time necessary for carrying out plan implementation.	The Regional Sanitary Sewer is under construction and is expected to be completed in April 2006.	Page 7
Provide financial information indicating the method and measures necessary to achieve project financing. (Section 201 CWA or Section 604 may apply.)	The NVDG will fund construction of the Regional Sanitary Sewer and dedicate it to LPSCo to own and operate.	Page 9

**IMPLEMENTABILITY**

<i>Describe impacts and implementability of Plan:</i>		
Describe impacts on existing wastewater (WW) facilities, e.g., Sanitary district, infrastructure/facilities and certificated areas.	Existing and planned facilities of LPSCo have the capacity to serve the expanded area.	Pages 6-7
Describe how and when existing package plants will be connected to a regional system.	Not applicable	Not applicable
Describe the impact on communities and businesses affected by the plan.	No significant impacts	Not applicable

If a municipal wastewater (WWT) system is proposed, describe how WWT service will be provided until the municipal system is completed: i.e., will package plants and septic systems be allowed and under what circumstances. (Interim services.)	Not applicable	Not applicable
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<b>PUBLIC PARTICIPATION</b>		
Submit copy of mailing list used to notify the public of the public hearing on the 208 amendment. (40 CFR, Chapter 1, Part 25.5)	Public participation will be satisfied through the MAG 208 Plan Amendment Process.	Page 10
List location where documents are available for review at least 30 days before public hearing.	Public participation will be satisfied through the MAG 208 Amendment Process..	Page 10
Submit copy of the public notice of the public hearing as well as an official affidavit of publication from the area newspaper. Clearly show the announcement appeared in the newspaper at least 45 days before the hearing.	Public participation will be satisfied through the MAG 208 Amendment Process.	Page 10
Submit affidavit of publication for official newspaper publication.	Public participation will be satisfied through the MAG 208 Amendment Process.	Page 10
Submit responsiveness summary for public hearing.	Public participation will be satisfied through the MAG 208 Amendment Process.	Page 10

## ABBREVIATIONS USED

LPSCo	Litchfield Park Service Company
MAG	Maricopa Association of Governments
NVDG	Northwest Valley Development Group
CC&N	Certificate of Convenience and Necessity
APP	Aquifer Protection Permit
ACC	Arizona Corporation Commission
DMA	Designated Management Agency
MGD	Millions of gallons per day
EDU	Equivalent dwelling unit (used to describe the sewage flows in terms of dwelling units)
POTW	Publicly Owned Treatment Works

## 1.0 20-YEAR NEEDS ASSESSMENTS

### 1.1 General Background and Project History

Litchfield Park Service Company (LPSCo) is a privately-owned and operated wastewater operator providing wastewater collection and treatment service for all of the City of Litchfield Park and portions of Avondale, Glendale, Goodyear and unincorporated Maricopa County. The general area is shown in Exhibit 1. LPSCo's facilities, plans, and service area are described in the MAG 208 Water Quality Management Plan, October 2002, a section of which is contained in Appendix B. The existing service area for the Palm Valley and Sarival Water Reclamation Facilities is shown in Exhibit 2. While not a Designated Management Agency itself, LPSCo operates in the areas of the agencies mentioned above with their cooperation and to their benefit. The City of Glendale, Town of Buckeye, and Maricopa County are requesting that the MAG 208 Plan be amended to include the service area expansion for the LPSCo Palm Valley and Sarival Water Reclamation Facilities. Other municipalities within three miles of the service area expansion (Goodyear and Surprise) have provided letters stating that they have no objection to the proposed amendment.

This 208 Plan Amendment provides for expansion of the LPSCo service area for the Palm Valley and Sarival Water Reclamation Facilities, which will receive wastewater from the proposed LPSCo Regional Sanitary Sewer. The expanded service area would include portions of the Glendale and Buckeye municipal planning areas and unincorporated areas of Maricopa County. This new gravity sewer line was proposed in the *White Tank Mountain Regional Sewer Study*, contained in Appendix C, and is needed to serve several planned communities that will not be served by other systems in the general area and are most effectively served by the LPSCo system.

### 1.2 Existing Service Area

Litchfield Park Service Company (LPSCo) currently provides wastewater collection and treatment service to all of the City of Litchfield Park and portions of Avondale, Glendale, Goodyear and unincorporated areas of Maricopa County. The LPSCo service area is predominately made up of master planned communities such as Palm Valley, Pebble Creek, and Litchfield Greens. That service area is shown in Exhibit 2.

### 1.3 Existing Facilities

The existing facilities include the Palm Valley Wastewater Reclamation Facility (PVWRF), located at 14222 W. McDowell Road, which was constructed and placed into service in February 2001. LPSCo is currently preparing an Aquifer Protection Permit amendment for the expansion of PVWRF from 4.1 to 8.2 MGD (see Appendix D). This facility was designed to serve all residential and commercial development from McDowell Road on the south to Camelback Road on the north and from Bullard Avenue on the west to Dysart Road on the east (Exhibit 2).

### 1.4 Previously Planned Facilities

#### 1.4.1 Collection System

This proposed amendment does not detail any existing collection system components in the LPSCo system since they will not be affected by the proposed expansion.

#### 1.4.2 Pumping Facilities

LPSCo has completed the construction of the Sarival Lift Station, which will provide interim pumping capacity to the PVWRF from the northwest service area until such time that flows increased to a level that would support startup and continuous operation of a second treatment facility, the Sarival Wastewater Reclamation Facility (SWRF). Both the Sarival Lift Station and SWRF proposed location are shown on Exhibit 3. The basis for this plan is described in the earlier August 2000 208 Plan Amendment, found in Appendix A. The initial design and first phase construction of the Sarival Lift Station is designed to provide the following pumping capacity:

- Average Daily Flow            2.0 MGD
- Peak Day Flow                 4.2 MGD
- Peak Hour Flow                6.5 MGD

The lift station facility includes the following features, all existing at the current time:

- One 30,000 gallon sub-grade concrete wet well
- Three 1,500 GPM submersible raw sewage pumps and ancillary control equipment
- One 125 KVA – Standby power generator
- One Positive Displacement Passive Odor Scrubbing Unit
- One 24-inch by-pass sewer to the City of Goodyear
- One 36-inch RCP inlet piping
- One 16-inch DI discharge piping (to PVWRF)

The initial construction phase of the Sarival Lift Station will provide sewer service for up to 6,250 residential units by diverting up to 2.0 MGD average daily flow to the PVWRF through a newly constructed 16-inch ductile iron force main. Once the trigger flow rate of 1.2 MGD is reached at this facility, construction will begin on the first phase (4.1 MGD) of the SWRF.

#### **1.4.3 Treatment Facilities**

The SWRF will be located west of Sarival Road on the south side of McDowell Road and is planned to treat all residential and commercial sewer flows west of Pebble Creek Parkway between McDowell Road to the south and Bethany Home Road to the north; see Exhibit 3. This facility was previously approved through the 208 Plan Amendment dated August 2000, which is contained in Appendix A.

#### **1.4.4 Facility Capacity**

Both the Palm Valley WRF and Sarival WRF will be constructed in two general phases. The Palm Valley facility Phase I will have an average day capacity of 4.1 MGD with a second phase expansion to 8.2 MGD. The Sarival facility will have a Phase I average day capacity of 4.1 MGD and a full build out capacity of 8.2 MGD. The two new wastewater treatment facilities will be capable of treating the projected wastewater flows from the existing LPSCo service area with a 38% reserve capacity for projection limitations and modifications from the assumed modeling land uses, as reported in the August 2000 208 Amendment (Appendix A). The projected wastewater flows will be divided between the two wastewater treatment plants and development of certain areas will dictate actual

facility construction and expansion schedules. The following summarizes the proposed treatment plant capacities and anticipated construction time frames:

Treatment Plant	Annual Average Day Treatment Capacity		
	Phase I (year)	Phase II (year)	Total Capacity
Palm Valley WRF	4.1 MGD (2001)	4.1 MGD (2012)	8.2 MGD
Sarival WRF	4.1 MGD (2006)	4.1 MGD (2016)	8.2 MGD
		<b>Total</b>	<b>16.4 MGD</b>

The capacity available for the proposed expansion equals 6.23 MGD (0.38 x 16.4).

The current capacity of the Palm Valley WRF is 4.1 MGD. The Sarival WRF is yet to be constructed.

#### 1.4.5 Water Reclamation Facility Description

The Palm Valley and Sarival WRF's treatment process is based on biological oxidation by the extended aeration activated sludge process. Both treatment plants will include screening, grit removal, anoxic/aerobic biological nutrient removal, Ultra-Violet (UV) disinfection, and disk filtration. The treatment process will utilize anoxic mixing, aerobic mixing, and static reaction capabilities to provide biological oxidation, nitrification, denitrification, and clarification within one reactor tank. To provide process redundancy and obtain a Phase I average-day capacity of 4.1 MGD, a minimum of two reactor tanks will be constructed. The Palm Valley WRF has been constructed utilizing the above treatment process and is fully operational at 4.1 MGD capacity.

Wastewater will be treated to exceed the current ADEQ Title 18 requirements for unrestricted irrigation re-use. Effluent disposal is accomplished through golf course and agricultural irrigation. There are currently four 18-hole golf courses served by LPSCo with four future courses planned and numerous public parks, which will be converted to reclaimed water irrigation. LPSCo plans to provide the reclaimed water at less cost than current groundwater or surface water prices. Effluent from the treatment facilities will be stored in golf course lakes and water feature amenities then distributed as needed for irrigation. It is estimated that the irrigation demand in the North Planning Area will not require as much reclaimed

water as will be produced. Therefore, a secondary discharge system will be developed for both plants to allow for groundwater recharge of the underlying aquifer. An AZPDES permit will be required for the RID canal discharge proposed for the SWRF. Discussions are currently underway with the RID to identify the AZPDES Permit point of discharge for the SWRF. Raw wastewater is expected to be nearly 100% residential and light commercial. Industrial service connections will be required to comply with all pretreatment requirements.

Both facilities will generate waste sludge, which will be directed to an aerobic digestion process. The sludge digestion process will provide pathogen and vector attraction reduction equivalent to the EPA Title 40 CFR Art 503 regulations, which will result in a facility having the capability to produce Class A biosolids. Biosolids will be stored and sold or hauled to landfill for disposal. However, there will be an opportunity to use SWRF as a bio solids processing plant for both facilities once it is completed. This will reduce environmental impacts and aesthetic concerns in the vicinity of the PVWRF.

Operation and maintenance of the sewage system will be in accordance with LPSCo procedures. LPSCo will provide the services in accordance with the current regulations of the U.S. Environmental Protection Agency (EPA), Arizona Corporation Commission, the Arizona Department of Environmental Quality and Department of Water Resources, Maricopa County Environmental Services Department (MCESD), City of Goodyear, and any other regulatory agencies having jurisdiction.

Further details about the treatment processes, effluents, and biosolids handling are found in the August 2000 208 Amendment in Appendix A.

#### **1.4.6 Pretreatment Requirements**

The Code of Federal Regulations Part 403 Section 403.8 states “any POTW with a total design flow of 5 million gallons per day and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards, will be required to establish a

pretreatment program". No industrial users are anticipated to discharge into the two wastewater treatment plants. Thus neither facility is required to comply with pretreatment requirements. If industrial users are added to the service area of either facility, a pretreatment program will be developed with the industrial user being subject to pretreatment standards as regulated by the EPA.

### 1.5 Population and Wastewater Flow Estimates

In the August 2000 208 Amendment four regional areas were used to define the total LPSCo service area. These four areas include the City of Goodyear's Regional Analysis Zone (RAZ) 265, RAZ 266 (Litchfield Park), the Stardust Development service area, and the Wigwam Creek service area. These are illustrated in Exhibit 2. The layout of Regional Analysis Zones is shown in the figure in Appendix E. Appendix E also contains population projections drawn from the current MAG 208 Plan.

Estimates of dwelling units and resulting wastewater flows for the proposed service area expansion are shown in the first table below; the second table shows the basis used to determine the number of Equivalent Dwelling Units (EDU) for the different land types.

Property	Area, ac	Residential Units	Commercial, ac	Schools, number	EDU
Badley Center	20	0	18	0	28
Savannah	159	319	0	0	319
Russell Ranch Ph 6	80	110	10	0	126
Zanjero Trails	2208	8231	72	3	8519
Jackrabbit Estates	140	364	0	0	364
Total					9356

Land Use	Basis		EDU
Residential	100	gal/person/day	1
	3.2	persons/household	
	4	household/ac	
Commercial	2000	gal/ac/day	1.56 per ac
Schools	75	gal/student/day	58.6 per school
	1000	students/school	3.9 per acre

Using the Maricopa County unit load criteria, the 9356 EDUs at ultimate build out of the proposed expansion area will generate 3 MGD average daily flow.

This analysis shows that the existing and planned facilities have sufficient capacity, 6.23 MGD available versus 3.0 MGD required, to serve this expanded area .

#### **1.6 Newly-proposed Facilities**

The LPSCo Regional Sanitary Sewer has been designed to serve the needs of the proposed expanded service area plus additional properties. The basis for design of this sewer is presented in the *White Tank Mountain Regional Sewer Solution* report found in Appendix C. Compared with the contributory area described in the *White Tank Mountain Regional Sewer Solution* report, the initial area that is contributing to construction is smaller because some of the properties are not participating in the current project. The reduction in initial flows will not reduce the effectiveness of the sewer to operate and function properly. The properties that will be served by the Regional Sanitary Sewer are shown in Exhibit 4.

The Sarival Lift Station was constructed and placed into service in June of 2005 and is currently functional. The planned Regional Sanitary Sewer line will connect to the Sarival Lift Station just north of the facility. The lift station and the future Sarival WRF are located southwest of the intersection of Sarival Avenue and McDowell Road in the City of Goodyear. The original design concept of the Sarival Lift Station is to provide interim pumping capacity to the Palm Valley Water Reclamation Facility (PVWRF) from the northwest service area until such time that flows increase to a level that support startup and continuous operation of the ultimate 8.2 MGD SWRF. At full build-out, the facility is planned to treat all residential and commercial sewer flows west of Pebble Creek Parkway between McDowell Road to the south and Bethany Home Road to the north (Exhibit 2).

The planned Regional Sanitary Sewer line is under construction and anticipated to be completed by in April 2006.

#### **1.7 Permitting Requirements**

The expansion of the service area under this amendment will not require any permits.

The Regional Sanitary Sewer line to serve the area has been issued a Permit to Construct from Maricopa County Environmental Services Department.

Construction activities for the sewer line will require a Stormwater Pollution Prevention Plan, which is in place and maintained by the Contractor doing the construction.

## **2.0 CONSTRUCTION**

### **2.1 Construction, Operation, and Maintenance Responsibility**

LPSCo will develop and implement the plan for the construction/expansion and operation of the Palm Valley WRF, the Sarival WRF, and the Sarival Lift Station and will be solely responsible for funding the projects.

The NVDG will undertake construction of the Regional Sanitary Sewer through their own funding by contributions. Upon completion and acceptance, the Regional Sanitary Sewer will become the property of LPSCo who will own, operate and maintain the Sewer.

### **2.2 Sources of Construction Pollution**

The construction of the wastewater treatment plants will not be a significant source of pollution. Sources of pollution from the construction sites are expected to be from normal construction materials (i.e. concrete, lumber, paint, etc.), as well as fugitive dust and construction equipment exhaust emissions. Erosion control measures during construction and grading will be implemented to prevent potential storm water runoff to water bodies. The developer and contractor will be required to maintain a clean, safe working environment and to abide by all rules and regulations covering storage, use, and disposal of hazardous materials.

The construction of the Regional Sanitary Sewer will also not be a significant source of pollution. Sources of pollution from the construction sites are expected to be from fugitive dust and construction equipment exhaust emissions. Erosion control measures during construction and grading will be implemented to prevent potential storm water runoff to water bodies. The developer and contractor will be required to maintain a clean, safe working environment and to abide by all rules and regulations covering storage, use, and disposal of hazardous materials.

### 3.0 FINANCING AND OTHER ACTIONS TO IMPLEMENT PLAN

#### 3.1 Financing Capability to Construction the Facilities

LPSCo has made financial plans for the construction and operation of the treatment plants. The new facilities will be constructed using private, tax exempt, and/or developer/development funds.

LPSCo will develop and implement the plan for the construction and operation of the Palm Valley WRF, the Sarival WRF and related services areas. LPSCo will be solely responsible for funding the project. Both facilities will be funded with moneys from LPSCo connection fees for new home construction and development. No financial constraints are expected for either of the treatment works.

LPSCo's financial capability to undertake these projects is documented by the financial statements included in Appendix F.

The financial capability to construct the Regional Sanitary Sewer is documented in the letter from LPSCo, which is also included in Appendix F.

### 4.0 IMPACTS AND IMPLEMENTATION PLAN

#### 4.1 Impacts of the Proposed Wastewater Treatment Plants

A detailed discussion of the impacts of the treatment facilities is contained in the August 2000 208 Amendment; refer to Appendix A for those details. Construction of the Regional Sanitary Sewer line and expansion of the service area will not change anything related to the impacts of those treatment facilities.

The existing Palm Valley WRF will initially alleviate excess wastewater flow to the City of Goodyear's treatment facility by re-routing an average of 1.1 MGD currently conveyed to the City's 157<sup>th</sup> Avenue WWTP. The need to discontinue this diversion plus the new flows from the NVDG projects will immediately trigger design of the SWRF.

Potential environmental issues include odor, noise, vectors and hazardous materials. Once completed, the SWRF may be utilized to process bio solids from the PVWRF,

potentially eliminating environmental and aesthetic issues associated with biosolids processing.

## 5.0 PUBLIC PARTICIPATION

As part of the MAG Water Quality Management Plan Amendment Process, MAG, with the cooperation of the City of Glendale, Town of Buckeye and Maricopa County, is responsible for ensuring that the following actions are implemented after submittal of the draft 208 Amendment:

- Notify all parties of a public hearing on the 208 Amendment by sending notices to interested parties at least 30 days prior to the public hearing. The notice will include the date, time, subject and location of the public hearing for the 208 Amendment.
- Notify public at least 45 days in advance of the public hearing by advertising in a publication. The notice will include the date, time, subject and location of the public hearing for the 208 Amendment.
- Notify public that draft amendments are available for public viewing 30 days before the hearing. This notice will include the location, days, and time of availability.
- Submittal of an affidavit of publication of the public notice.

## **APPENDIX A – August 2000 208 Plan Amendment**

This Appendix contains the document portion of the August 2000 208 Amendment that set forth the treatment plans and service area for LPSCo. That Amendment was approved and is contained in the 208 Water Quality Management Plan, October 2002.

This document describes the treatment and pumping facilities planned by LPSCo and forms the background basis for information in support of this current amendment.



**CLEAN WATER ACT  
- 208 AMENDMENT -**

**APPLICATION FOR  
MARICOPA ASSOCIATION OF GOVERNMENTS**

**PREPARED FOR:**

**LITCHFIELD PARK SERVICE COMPANY  
WATER RECLAMATION FACILITY  
&  
CITY OF GOODYEAR**

**PREPARED BY:**

**PACE**  
PACIFIC ADVANCED  
CIVIL ENGINEERING

**AUGUST 2000**

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## Appendix

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Appendix B	Palm Valley WRF Process Design Criteria
Appendix C	Effluent Reuse Water Balance Calculations
Appendix D	Palm Valley Draft Construction Schedule
Appendix E	LPSCo Financial Documentation and Palm Valley WRF Cost Est.
Appendix F	Preliminary Wastewater Planning Study for SunCor and Litchfield Park Service Company (Black & Veatch LLP 1998)
Appendix G	Addendum Number 2 to Wastewater Master Plan Litchfield Master Planned Community (SMF Engineering 1997)

## **EXECUTIVE SUMMARY**



August 30, 2000

Ms. Lindy Bauer, Environmental Program Director  
Maricopa Association of Governments  
302 North 1<sup>st</sup> Avenue, Suite 300  
Phoenix, AZ 85003

**RE: MAG 208 AMENDMENT – GOODYEAR, ARIZONA**

Dear Ms. Bauer:

Enclosed is a proposed Amendment to the Maricopa Association of Governments (MAG) 208 Water Quality Management Plan point source plan element for the City of Goodyear and Litchfield Park Service Company (LPSCo). We are requesting the County's review comments, and its formal support in this MAG 208 Amendment process.

The proposed amendment will update the plan for wastewater treatment facilities in the central and northern planning area within the City of Goodyear, and will provide additional needed capacity for SunCor, the master developer for most of the north area.

The WRF's are located within three miles of Litchfield Park, Avondale, Glendale, El Mirage, Buckeye, and unincorporated Maricopa County. Support letters are attached from Avondale, Litchfield Park and Glendale.

Council approved the Amendment to MAG 208 Water Quality Management Plan for the addition of Phases I-IV (16.4 MGD total) of the Palm Valley and Sarival Avenue Water Reclamation Facilities (WRF) both located north of McDowell Road, subject to the AGREEMENT FOR MAG 208 AMENDMENT. The agreement, which is attached outlines the City's consent of the revisions to be made to the 208 plan proposed by LPSCo. Part of the agreement however addresses conditions that LPSCo must meet in order to proceed with expansions to the Palm Valley facility (beyond the original 4.1 MGD construction) or construction of the Sarival Avenue facility.

- A. The facility must meet State and Federal odor requirements.
- B. The operation must meet State and Federal noise control requirements.
- C. The facility must produce a Class A Sludge without violations of any State or Federal requirements.
- D. Compliance with the Engineering Report prepared by Environmental Utilities International (also attached).

THE CITY OF GOODYEAR

At such time as each phase of the facilities reaches an operating capacity of 3 million gallons per day (3 MGD), of each operating phase, without violation and in compliance with conditions A, B, C and 4 above, LPSCo may commence construction of the next phase. The City's designated consultant shall determine, at each phase, whether LPSCo has complied with the requirements of this Agreement. The Consultant's report of findings shall be submitted to City Council for approval prior to commencement of each phase.

The following are current WWTP's and WRF and the proposed amendment for additional WRF's in this area:

<u>Existing 208 Plan</u>	<u>Proposed Amendment</u>
Goodyear Wastewater Treatment Plant	n/a
Corgett Basin WRF	n/a
Lum Basin WWTP	n/a
Waterman Basin WWTP	n/a
n/a	Palm Valley WRF
n/a	Sarival Avenue WRF

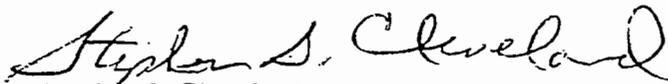
Since, the newly proposed WRF's are located within three miles of the unincorporated Maricopa County wastewater planning area. The City of Goodyear is requesting a written expression of support from the County, confirming that this Amendment will not conflict with any wastewater plans by the County.

We would appreciate a timely review and response so that we can initiate the MAG approval process. Please address your letter of support to my attention. If you have technical questions or comments, you may direct them to Steve Owen of Pacific Environmental Resources Corporation (PERC) at (602) 631-3905 ext. 405.

The City of Goodyear appreciates the County's assistance with this matter.

Sincerely,

CITY OF GOODYEAR



Stephen S. Cleveland  
City Manager

Enclosure

cc: Cato Esquivel, Jr., Public Works Director  
David W. Ellis, LPSCo  
Jay Ellingson, SunCor  
Reading File  
City Clerk

ENVIRONMENTAL SERVICES  
DEPARTMENT



WATER AND WASTE MANAGEMENT  
DIVISION

Albert F. Brown, RS, MPA, Director

John A. Power, PE, Division Manager

1001 N. Central Avenue, Suite 150  
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(602) 506-6666  
FAX (602) 506-6925  
TT (602) 506-6704

August 30, 2000

Maricopa Association of Governments  
302 North 1st Avenue, Suite 300  
Phoenix, Arizona 85003

Attention: Ms. Lindy Bauer, Environmental Program Coordinator  
Re: City of Goodyear Proposed 208 Amendment for Litchfield Park Service Co.  
(LIPSCO), MCESD #TBD

Dear Ms. Bauer:

Pacific Advanced Civil Engineering (PACE) has submitted a proposed 208 Amendment to the Maricopa County Environmental Services Department (MCESD) for two (2) wastewater treatment facilities in the City of Goodyear for the LIPSCO service area. The service areas includes the City of Litchfield Park and adjacent areas between Perryville Road and 115<sup>th</sup> Avenue, and between McDowell Road and Glendale Avenue.

In accordance with the MAG 208 Water Quality Management Plan, the proposed 208 Amendment for the facility was submitted to this Department for comment, since the facility is located within three miles of the unincorporated area of Maricopa County.

Based on a review of the proposed 208 Amendment, dated June 2000, the Maricopa County Environmental Services Department, Water and Waste Management Division does not object to the proposed plants for the City of Goodyear and LIPSCO. However, several technical issues remain, which need to be resolved during the design phase of the project. Approval to Construct and Approval of Construction must be obtained from this Department prior to start of construction and startup, respectively.

Maricopa County approved the Dreaming Summit Development, which is part of the proposed LIPSCO service area, with a condition that the existing Casitas Bonitas subdivision be connected to its sewage collection system. Maricopa County expects this provision to be honored. Accordingly, our support is contingent that the failing Casitas Bonitas wastewater treatment plant is abandoned as part of this project, and its customers are connected to the proposed LIPSCO system.

Page 2 of 2

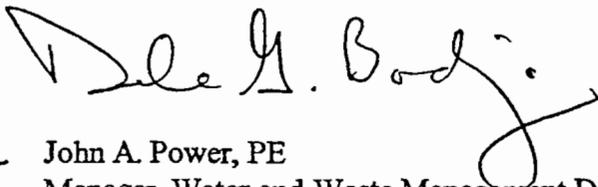
August 30, 2000

Ms. Lindy Bauer

City of Goodyear for LIPSCO, MCESD # TBD

If you have any questions or comments, please feel free to contact Mr. Dale Bodiya, PE,  
or myself, at 506-6666.

Sincerely,



*for* John A. Power, PE  
Manager, Water and Waste Management Division

cc:

Mr. Albert F. Brown, RS, MPA, Director, MC Environmental Services Department

Mr. Dale Bodiya, PE, Manager, Water / Wastewater Treatment Section, MCESD

ADEQ, Manager, Water Permits and Plan Review Section

Steve Owen, PACE

City of Goodyear

Mr. Dave Ellis, General Manager, LIPSCO

File



## Town of Buckeye

July 20, 2000

Ms. Lindy Bauer  
Environmental Program Director  
Maricopa Association of Governments  
302 N. 1<sup>st</sup> Avenue, Suite 300  
Phoenix, AZ 85003

Re: MAG 208 Amendment – Goodyear, Arizona

Dear Ms. Bauer:

The Town of Buckeye is aware that the City of Goodyear is submitting an application requesting a Clean Water Act Section 208 Amendment to the Regional Water Quality Management Plan to accommodate two proposed water reclamation facility sites located in the North Planning Service Area of Goodyear. The first site, located near McDowell and Litchfield Roads, is sized for a total capacity of 8.2 MGD and the second site, near Sarival and McDowell Roads, is also sized for a capacity of 8.2 MGD.

The proposed 208 Amendment will update the plan for wastewater treatment facilities in the North Planning Area and will provide additional needed capacity for both Litchfield Park and the City of Goodyear.

The Town of Buckeye expresses its support for this 208 Amendment application. If you should have any questions, please do not hesitate to call me at 623/386-4691.

Sincerely,

Joseph Blanton, Town Manager

cc: David W. Ellis, LPSCO  
Steve Cleveland, City of Goodyear



# CITY OF AVONDALE

INCORPORATED 1946

525 NORTH CENTRAL AVENUE • AVONDALE, ARIZONA 85323  
PHONE: (623) 932-2400 • FAX: (623) 932-2205  
INTERNET ADDRESS: [www.avondale.org](http://www.avondale.org)

**MAYOR**  
FRANK J. DRAKE

**VICE MAYOR**  
MARRIE LOPEZ ROGERS

**COUNCIL MEMBERS**  
ALBERT CARROLL, JR.  
FRANK JONES  
STEPHANIE KARLIN  
BETTY S. LYNCH  
RAYMOND H. SHUEY

**CITY CLERK**  
LINDA M. FARRIS

July 24, 2000

Ms. Lindy Bauer  
Environmental Program Director  
Maricopa Association of Governments  
302 N. 1<sup>st</sup> Avenue, Suite 300  
Phoenix, AZ 85003

Re: MAG 208 Amendment – Goodyear, Arizona

Dear Ms. Bauer:

The City of Avondale is aware that the City of Goodyear is submitting an application requesting a Clean Water Act Section 208 Amendment to the Regional Water Quality Management Plan to accommodate two proposed wastewater treatment facility sites located in the North Planning Service Area of Goodyear. The first site is located near McDowell and Litchfield Road and is sized for a total capacity of 8.2 MGD. The second site near Sarival Road and McDowell also is sized for a capacity of 8.2 MGD. It is our understanding that both facilities are to be constructed by the Litchfield Park Service Company (LPSCO).

The proposed 208 Amendment will update the plan for wastewater treatment facilities in the North Planning Area and will provide additional needed capacity for both Litchfield Park and the City of Goodyear.

The City of Avondale has no objection to these facilities and will support the 208 Amendment application as submitted by the City of Goodyear. Your assistance and timely review are appreciated. Please do not hesitate to contact me should you have any questions.

Sincerely,

Paul Adams  
City Manager

cc: David W. Ellis, LPSCO  
Steve Cleveland, Goodyear City Manager

# City of Litchfield Park

## City Council

J. Woodfin Thomas, Mayor  
Kenneth H. Jones, Vice Mayor  
Barbara F. Brainard  
Orin "O.K." Fulton  
Peter E. Mahoney  
Nathan "Bud" Schneider  
Max W. Wilson

August 21, 2000

Ms. Lindy Bauer  
Environmental Program Director  
Maricopa Association of Governments  
302 N. 1<sup>st</sup> Avenue, Suite 300  
Phoenix, AZ 85003

Re: MAG 208 Amendment - Goodyear, Arizona

Dear Ms. Bauer:

The City of Litchfield Park is aware that the City of Goodyear is submitting an application requesting a Clean Water Act Section 208 Amendment to the Regional Water Quality Management Plan to accommodate two proposed water reclamation facility sites located in the North Planning Service Area of Goodyear. The first site is located near McDowell and Litchfield Road and is sized for a total capacity of 8.2 MGD and the second site, near Sarival Road and McDowell, also is sized for a capacity of 8.2 MGD.

The proposed 208 Amendment will update the plan for wastewater treatment facilities in the North Planning Area and will provide additional needed capacity for both the Litchfield Park area and the City of Goodyear.

In concept, and after consultation with the City of Goodyear, the City of Litchfield Park does not object to the amendment to the 208 plan. To the extent that the City of Goodyear does not object to the plant site or to the proposed technology, we endorse the amendment. Our endorsement should not be viewed as an approval of Litchfield Park Service Company's (LPSCo) development or financial planning. Therefore, this endorsement should not be used to justify future rate increases to the residents of Litchfield Park.

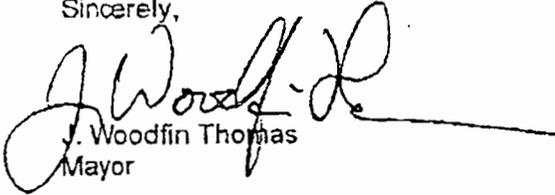
The City also objects to the expansion of the LPSCo service area to include the Dreaming Summit project, Wigwam Creek and Veranda, and we do not wish this endorsement to be viewed as support for this project.

Additionally, the City would like to keep open for future discussion the possibility of ownership in the wastewater treatment facility, as well as a requirement to return reclaimed water to Litchfield Park.

Ms. Lindy Bauer  
August 21, 2000  
Page 2 of 2

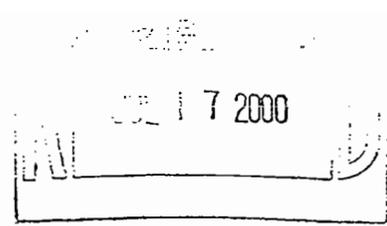
With the above conditions, and upon fulfillment of all stipulations requested by the City of Goodyear, we do not object to this 208 Amendment application. We look forward to working with both LPSCO and the City of Goodyear and would appreciate a timely review and response to facilitate the MAG approval process.

Sincerely,



J. Woodfin Thomas  
Mayor

cc: David W. Ellis, Litchfield Park Service Company  
Steve Cleveland, Goodyear City Manager



July 7, 2000

David W. Ellis  
General Manager  
LPSCO  
111 W. Wigwam Blvd, Suite B  
Litchfield Park, Arizona 85340

Dear Sir:

This letter is in response to the letter you delivered to my office on July 7, 2000 regarding the new LPSCO Water Reclamation Facility in Goodyear, Arizona. After review and consideration, the City of Glendale has no objection to the plan you have proposed. You may be over three miles from our jurisdiction in which case you would not need our comments anyway. Even so, the City of Glendale would like to take this opportunity to wish you luck with your project and offer any assistance we can give in your planning or review process.

Sincerely,

Kenneth A. Reedy  
Deputy City Manager, Public Works

**GOODYEAR INVESTORS, L.L.C.**

*Globe Corporation, Managing Member*

6730 N. Scottsdale Road, Suite 250  
Scottsdale, Arizona 85253

RAYMOND H. CARTER  
Vice President

Telephone (480) 991-0500  
Facsimile (480) 991-1912

JUL 19 2000

July 17, 2000

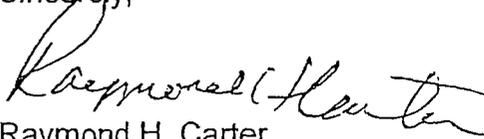
Dave Ellis  
Litchfield Park Service Company  
111 W. Indian School Road  
Litchfield Park, AZ 85340

RE: Sewer Service Section 32 Goodyear, AZ

Dear Dave:

We support the installation of the new sewage treatment facility north of the freeway to service our property.

Sincerely,



Raymond H. Carter  
Vice President

## EXECUTIVE SUMMARY

The Maricopa Association of Governments (MAG) is the Designated Management Agency with the authority under Section 208(2)(b) of the Clean Water Act (CWA) to prepare the Regional Water Quality Management Plan for the Maricopa County Planning Area. The purpose of this application is to request a Clean Water Act Section 208 amendment to the current Regional Water Quality Management Plan. The requested amendments include:

### **Amendment Item #1:**

The construction of a new LPSCo owned and operated 8.2 MGD Palm Valley water reclamation facility (WRF) on McDowell Road between Bullard Avenue and Litchfield Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the current Litchfield Park Service Company (LPSCo) service area and portions of the Regional Analysis Zone (RAZ) 265 and 266. The expanded service area for the Palm Valley WRF will have a general boundary from the I-10 freeway north past Camelback Road and west from Dysart Road to Bullard Avenue. Permits that will be required for the Palm Valley WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

### **Amendment Item #2:**

The construction of a new LPSCo owned and operated 8.2 MGD Sarival WRF at Sarival Avenue and McDowell Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the remaining portions of RAZ 265. The service area for the Sarival WRF will have a general boundary from the I-10 freeway north to Camelback Road and west from Bullard Avenue to Cotton Lane and sections between Cotton Lane and Perryville Road. Permits that will be required for the Sarival WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

Several alternatives have been studied in addition to the construction of independent wastewater treatment plants for accommodation of increasing flows. The alternatives include:

### **Alternative 1:**

LPSCo continued contribution of wastewater flow to the Goodyear 157<sup>th</sup> Avenue WWTP and purchase of additional capacity to be provided at the 157<sup>th</sup> Avenue WWTP.

### **Alternative 2:**

Construction of a LPSCo wastewater treatment plant and sale of all interest in the City of Goodyear 157<sup>th</sup> Avenue WWTP.

**Alternative 3:**

LPSCo continued contribution of wastewater flow to the Goodyear 157<sup>th</sup> Avenue WWTP and purchase of additional capacity and process upgrades to be provided at the 157<sup>th</sup> Avenue WWTP.

**Alternative 4:**

Deferred construction of a LPSCo wastewater treatment plant until the actual LPSCo wastewater contribution to the Goodyear 157<sup>th</sup> Avenue WWTP increases to 2.0 MGD.

**Alternative 5:**

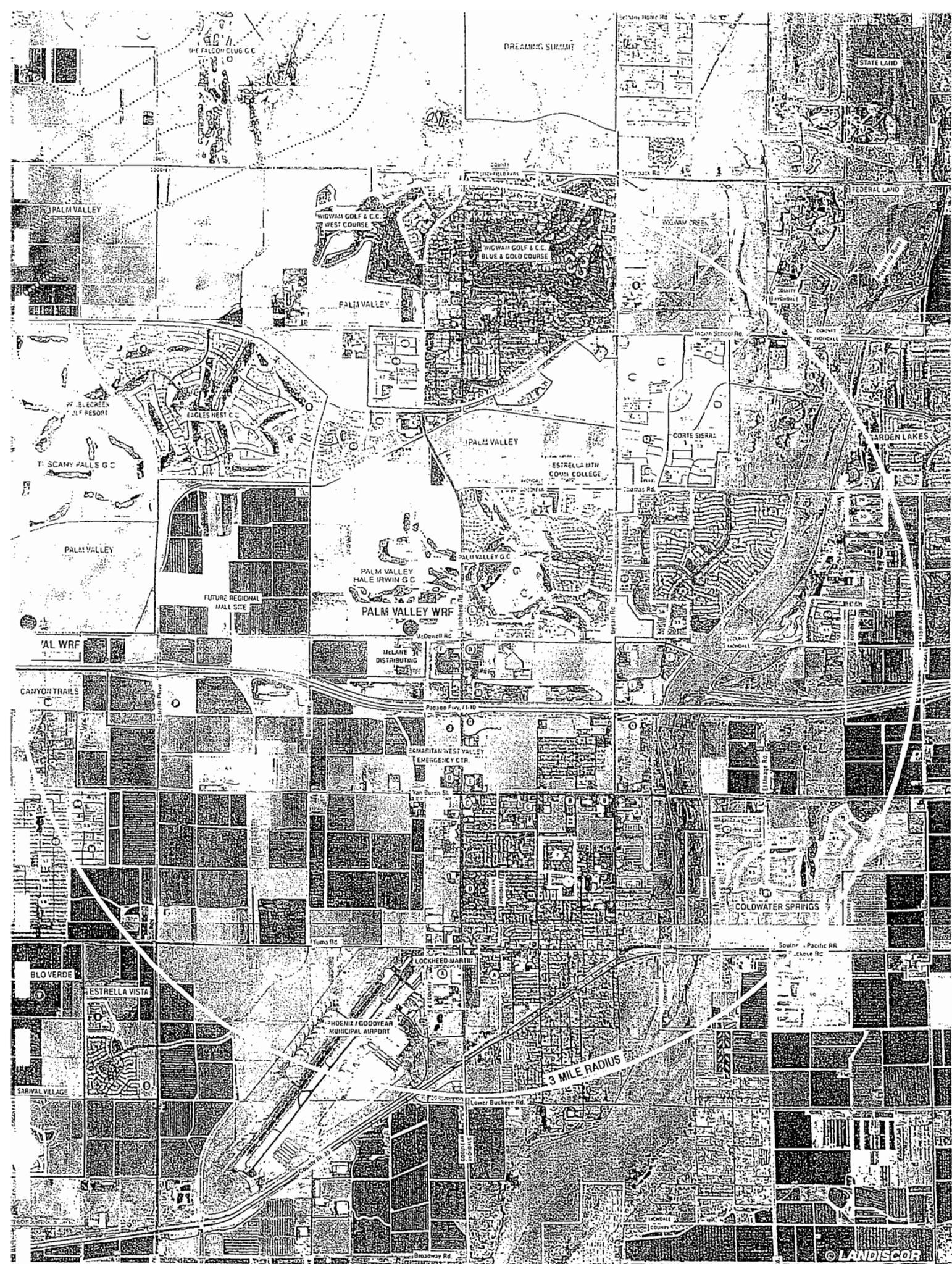
Deferred construction of a LPSCo wastewater treatment plant until the actual LPSCo wastewater contribution to the Goodyear 157<sup>th</sup> Avenue WWTP increases to 1.4 MGD.

Construction of a LPSCo water reclamation plant was considered to be highly cost-effective in comparison to the continued contribution of wastewater to the Goodyear 157<sup>th</sup> Avenue WWTP. In their 1998 report, Black & Veatch, LLP determined that Alternative 2 of those listed above was the most economically beneficial.

This CWA 208 Amendment application provides information on the proposed independent LPSCo WRFs. The following sections describe how the Section 208 requirements are addressed including alternatives, permitting, pretreatment, sludge management, construction, financing, impacts, and public participation.

**ABBREVIATIONS**

ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
APP	Aquifer Protection Permit
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
LPSCo	Litchfield Park Service Company
MAG	Maricopa Association of Governments
MGD	Million gallons per day
MSDS	Material Safety Data Sheets
O&M	Operations and maintenance
P.A.C.E.	Pacific Advanced Civil Engineering, Inc.
RAZ	Regional Analysis Zone
WRF	Water Reclamation Facility
WWTP	Wastewater Treatment Plant



THE FALCON CLUB G.C.

DREAMING SUMMIT

STATE LAND

PALM VALLEY

WICOWAN GOLF & C.C. WEST COURSE

WICOWAN GOLF & C.C. BLUE & GOLD COURSE

PALM VALLEY

FEDERAL LAND

T. SCANY FALLS G.C.

EAGLES NEST G.C.

PALM VALLEY

ESTRELLA MTH COMM COLLEGE

GARDEN LAKES

PALM VALLEY

PALM VALLEY GOLF & C.C.

PALM VALLEY WRF

AL WRF

MCLANE DISTRIBUTING

CANYON TRAILS

SAMARITAN WEST VALLEY EMERGENCY CTR.

COLDWATER SPRINGS

BLO VERDE

ESTRELLA VISTA

PHOENIX/GOODYEAR MUNICIPAL AIRPORT

LOCKHEED MARTIN

3 MILE RADIUS

SARIVAL VILLAGE

**CLEAN WATER ACT  
SECTION 208 CHECKLIST SUMMARY**

Requirement	Summary of How Requirements are Addressed	Page	Heading
<b>AUTHORITY</b>			
Proposed Designated Management Agency (DMA) shall self-certify that it has the authorities required by Section 208(2)(b) of the Clean Water Act to implement the plan for its proposed planning and service areas. Self-certification shall be in the form of a legal opinion by the DMA or entity attorney.			
<b>20-YEAR NEEDS</b>			
<b>Clearly describe the existing wastewater treatment (WWT) facilities:</b>			
<ul style="list-style-type: none"> <li>Describe existing WWT facilities.</li> </ul>	There are no existing WWTF facilities in the service area. LPSCO's Current collection system conveys sewage to the 157 <sup>th</sup> Avenue treatment plant located approximately 5.7 miles to the south of LPSCO service area.	10	
<ul style="list-style-type: none"> <li>Show WWT certified and service areas for private utilities and sanitary district boundaries, if appropriate.</li> </ul>	The two WRF's will serve the Goodyear North Planning area. The service area is located in the northern portion of the City of Goodyear, north of the I-10 freeway to Camelback Rd, west from Dysart Rd. to Perryville Rd.		Appendix A
<b>Clearly describe alternatives, the recommended WWT plan, and factors that affect discharge:</b>			
<ul style="list-style-type: none"> <li>Provide POPTAC population estimates (or COG-approved estimates only where POPTAC not available) over 20-year period.</li> </ul>	Review of MAG population estimates based on Interim Socioeconomic Report – June, 1997 and calculations performed by Black & Veatch. LLP 1998.	13	
<ul style="list-style-type: none"> <li>Provide wastewater flow estimates over the 20-year planning period.</li> </ul>	Flow projection based on MAG and Black & Veatch population estimates.	14	
<ul style="list-style-type: none"> <li>Illustrate the WWT planning and service areas.</li> </ul>	The planning and service areas will include the Goodyear North Planning area. (RAZ265&266)		Appendix A
<ul style="list-style-type: none"> <li>Describe the type and capacity of the recommended WRF.</li> </ul>	Advanced tertiary treatment including screening, grit removal, nitrification/denitrification, clarification, filtration, ozonation/UV disinfection. The facility will also include bio-solids processing to meet EPA 503 Class-A standards using aerobic digestion. The average day capacity of each facility will be constructed in two phases. The Phase I capacity of each plant will be 4.1 MGD with a phase II capacity of 8.2 MGD.	15	

<ul style="list-style-type: none"> <li>Identify water quality problems, consider alternative control measures, and recommend solution for implementation.</li> </ul>	<p>No water quality problems are expected to occur. The final effluent will meet current ADEQ open access and proposed ADEQ Class A+ reuse standards. An NPDES permit will be obtained for emergency treated water discharge to the Gila river basin.</p>	10	
<ul style="list-style-type: none"> <li>If private WWT utilities with certificated areas are within the proposed regional service area: define who (municipal or private utility) serves what area and when. Identify whose sewer lines can be approved in what areas, when?</li> </ul>	<p>Litchfield Park Service Company currently owns and operates the sewage collection system in the proposed service area.</p>	17	
<ul style="list-style-type: none"> <li>Describe method of effluent disposal and reuse sites (if appropriate).</li> </ul>	<p>Effluent will be stored in lined lakes and used to irrigate golf courses and parks with recharge of excess effluent. Permits that will be required for the WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.</p>	17	
<ul style="list-style-type: none"> <li>Describe other wastewater treatment options that were considered.</li> </ul>	<p>Five alternatives were considered:  <b>Alt. #1</b> – Stay with City of Goodyear WWTP &amp; expand.  <b>Alt. #2</b> – Construct new WRF(s) in the North Planning Area and sell 1.4 MGD capacity back to City of Goodyear.  <b>Alt. #3</b> - Stay with City of Goodyear WWTP &amp; use process upgrades and expansion for all LPSCo flows.  <b>Alt. #4</b> – Purchase additional capacity at the City of Goodyear to 2.0 MGD, then construct a new WRF(s) in the North Planning Area for additional LPSCo flows.  <b>Alt. #5</b> – Purchase additional capacity at the City of Goodyear to 2.0 MGD, then construct a new WRF(s) in the North Planning Area for additional LPSCo flows.</p>	10	
<ul style="list-style-type: none"> <li>If Sanitary Districts are within a proposed planning or service area, describe who services the Sanitary Districts and when.</li> </ul>	<p>Litchfield Park Service Company currently owns and operates the sewage collection system in the proposed service area.</p>	17	
<ul style="list-style-type: none"> <li>Describe ownership of land proposed for plant sites and reuse areas.</li> </ul>	<p>The land proposed for use at both plant sites is owned by SunCor Development Co. &amp; will be sold to LPSCo for the intended WRF use. Storage &amp; reuse will occur on golf courses, parks and lake amenities.</p>	13	

<ul style="list-style-type: none"> <li>Address time frames in the development of the treatment works.</li> </ul>	The Palm Valley WRF consists of two phases of 4.1 MGD each. Phase I will be completed by 2001 with full build-out by 2010. The Sarival. WRF consists of two phases of 4.1 MGD each. Phase I will be completed by 2006 with full build-out by 2020.	9	
<ul style="list-style-type: none"> <li>Address financial constraints in the development of the treatment works.</li> </ul>	Both facilities will be funded with moneys from LPSCo, connection fees for new home construction & development. No financial constraints are expected for either of the treatment works.	19	
<ul style="list-style-type: none"> <li>Describe how discharges will comply with EPA municipal and industrial stormwater discharge regulations (Section 405, CWA).</li> </ul>	Neither treated or untreated wastewater will be discharged to Waters of the U.S. & site-specific storm water will be retained on site for up to 100-year storm events.	17	
<ul style="list-style-type: none"> <li>Describe how open areas and recreational opportunities will result from improved water quality and how these will be used.</li> </ul>	The use of high quality effluent for irrigation will reduce the demand for groundwater. LPSCo plans to sell the reclaimed water to users at a lower cost than raw groundwater to facilitate reuse.	16	
<ul style="list-style-type: none"> <li>Describe potential use of lands associated with treatment works and increased access to water-based recreation, if applicable.</li> </ul>	Not applicable.	NA	
<b>REGULATIONS</b>			
<ul style="list-style-type: none"> <li>Describe types of permits needed, including NPDES, APP and reuse</li> </ul>	Both new WRFs will require Aquifer Protection Permits, 401 Water Quality Certification, Reclaimed Water Reuse Permits, NPDES & EPA 503 Sludge Reuse Permits.	18	
<ul style="list-style-type: none"> <li>Describe restrictions on NPDES permits, if needed, for discharge and sludge disposal.</li> </ul>	The treated municipal wastewater point discharge from the WRFs will be used for emergency only and will not be for daily operations.	18	
<ul style="list-style-type: none"> <li>Provide documentation of communication with ADEQ Permitting Section 30 to 60 days prior to public hearing regarding the need for specific permits.</li> </ul>	LPSCo has conducted pre-application meetings with Maricopa County Environmental Services & ADEQ.	NA	
<ul style="list-style-type: none"> <li>Describe pretreatment requirements and method of adherence to requirements (Section 208 (b)(2)(d), CWA).</li> </ul>	Raw wastewater is expected to be nearly 100% residential & light commercial. Industrial service connections will be required to comply with all pretreatment requirements.	18	

<ul style="list-style-type: none"> <li>Identify, if appropriate, specific pollutants that will be produced from excavations and procedures that will protect ground and surface water quality (Section 208(b)(2)(K) and Section 304, CWA).</li> </ul>	Not applicable.	NA	
<ul style="list-style-type: none"> <li>Describe alternatives and recommendations in the disposition of sludge generated (Sections 405, CWA and 40 CFR 503).</li> </ul>	Sludge will be treated on-site using processes to significantly reduce pathogens (PSRP) to meet the EPA Class A reuse requirements for sludge of exceptional quality (EQ).	18	
<ul style="list-style-type: none"> <li>Define any non-point issues related to the proposed facility and outline procedures to control them.</li> </ul>	No non-point discharges are anticipated.	17	
<ul style="list-style-type: none"> <li>Describe process to handle all mining runoff, orphan sites, and underground pollutants, if applicable.</li> </ul>	Not applicable.	NA	
<ul style="list-style-type: none"> <li>If mining related, define where collection of pollutants has occurred, and what procedures are going to be initiated to contain contaminated areas.</li> </ul>	Not applicable.	NA	
<ul style="list-style-type: none"> <li>If mining related, define what specialized procedures will be initiated for orphan sites, if applicable.</li> </ul>	Not applicable.	NA	
<b>CONSTRUCTION</b>			
<ul style="list-style-type: none"> <li>Define construction priorities and time schedules for initiation and completion.</li> </ul>	The Palm Valley WRF consists of two phases of 4.1 MGD each. Phase I will be completed by 2001 with full build-out by 2010. The Sarival WRF consists of two phases of 4.1 MGD each. Phase I will be completed by 2006 with full build-out by 2020.	9	
<ul style="list-style-type: none"> <li>Identify agencies that will construct, operate, and maintain the facilities and otherwise carry out the plan.</li> </ul>	Litchfield Park Service Company will construct, operate & maintain both WRFs.	19	
<ul style="list-style-type: none"> <li>Identify construction activity-related sources of pollution and set forth procedures and methods to control, to the extent feasible, such sources.</li> </ul>	Sources of pollution from the construction sites are expected to be from normal construction materials. (i.e. concrete, lumber, paint, etc.) The contractor will be required to maintain a clean, safe working environment & to abide by all rules & regulations covering storage, use & disposal of hazardous materials.	19	

<b>FINANCING AND OTHER MEASURES NECESSARY TO CARRY OUT THE PLAN</b>			
• If plan proposes to take over a certified private utility, describe how and when financing will be managed.	Not applicable.	NA	
• Describe any significant measure necessary to carry out the plan (e.g., institutional, financial, economic, etc.)	Not applicable.	NA	
• Described proposed method(s) of community financing.	The new treatment plants will be constructed using private, tax exempt funding where available, and developer funds.	19	
• Provide financial information to assure DMA has financial capability to operate and maintain wastewater system over its useful life.	LPSCo financial statements are included in the Appendix of this Amendment Application		Appendix E
• Provide a time line that outlines the period of time necessary for carrying out plan implementation.	A draft construction schedule for the Palm Valley facility is provided in Appendix D of this application.		Appendix D
• Provide financial information indicating the method and measures necessary to achieve project financing (Section 201 CWA or Section 604 may apply).	LPSCo financial statements are included in Appendix E of this Amendment Application		Appendix E
<b>IMPLEMENTATION</b>			
<b>Describe impacts and implementation requirements of the Plan:</b>			
• Describe impacts on existing WWTFs (e.g., Sanitary district, infrastructure/facilities, and certificated areas).	The re-routing of 1.1 MGD to the new Palm Valley WRF will impact the City of Goodyear's 157th Ave. WWTP. LPSCo will be selling 1.0 MGD of their current 1.4 MGD capacity allocation back to the City of Goodyear. These impacts will be positive for the city operations allowing Goodyear time to upgrade and expand the 157 <sup>th</sup> Ave. facility.	20	

<ul style="list-style-type: none"> <li>Describe how and when existing package plants will be connected to a regional system.</li> </ul>	Not Applicable. There are no existing package plants in the LPSCo service area.	NA	
<ul style="list-style-type: none"> <li>Describe the impact on communities and businesses affected by the plan.</li> </ul>	No significant impacts to the surrounding community or businesses are expected from the implementation of the amended plan.	20	
<ul style="list-style-type: none"> <li>If a municipal WWT system is proposed, describe how WWT service will be provided until the municipal system is completed (i.e., will package plants and septic systems be allowed and under what circumstances; interim services).</li> </ul>	Not Applicable for the Palm Valley WRF. The Sarival WRF service area will continue to flow to the 157 <sup>th</sup> Ave. plant until LPSCo's remaining 0.4 MGD capacity is exhausted. At which time, the Phase I Sarival WRF will be constructed.	9	
<b>PUBLIC PARTICIPATION</b>			
<ul style="list-style-type: none"> <li>Submit copy of mailing list used to notify the public of the public hearing on the 208 amendments. (40 CFR, Chapter 1, part 25.5)</li> </ul>	Public Participation will be satisfied through the MAG amendment process.	21	
<ul style="list-style-type: none"> <li>List location where documents are available for review at least 30 days before public hearing.</li> </ul>	Public Participation will be satisfied through the MAG amendment process.	21	
<ul style="list-style-type: none"> <li>Submit copy of the public notice of the public hearing as well as an official affidavit of publication from the area newspaper. Clearly show the announcement appeared in the newspaper at least 45 days before the hearing.</li> </ul>	Public Participation will be satisfied through the MAG amendment process.	21	
<ul style="list-style-type: none"> <li>Submit affidavit of publication for official newspaper publication.</li> </ul>	Public Participation will be satisfied through the MAG amendment process.	21	
<ul style="list-style-type: none"> <li>Submit responsiveness summary for public hearing.</li> </ul>	Public Participation will be satisfied through the MAG amendment process.	21	

## **20 YEAR NEEDS**

## 20-Year Needs

The Maricopa Association of Governments (MAG) is the Designated Management Planning Agency with the authority under Section 208(2)(b) of the Clean Water Act to prepare the Regional Water Quality Management Plan for the Maricopa County Planning Area. The purpose of this application is to request a Clean Water Act Section 208 amendment to the current Regional Water Quality Management Plan. The requested amendments include:

### **Amendment Item #1:**

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### **Amendment Item #2:**

The construction of a new LPSCo owned and operated 8.2 MGD Sarival WRF at Sarival Avenue and McDowell Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the remaining portions of RAZ 265. The service area for the Sarival WRF will have a general boundary from the I-10 freeway north to Camelback Road and west from Bullard Avenue to Cotton Lane and sections between Cotton Lane and Perryville Road. Permits that will be required for the Sarival WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

LPSCo has a current allocation of 1.4 MGD capacity at the City of Goodyear 157<sup>th</sup> Avenue WWTP. It is estimated that the sewer generation from the LPSCo service area will exceed the current 1.4 MGD capacity allocation beginning in the year 2001. To accommodate existing and future flows, two new wastewater treatment plants are proposed. The proposed LPSCo wastewater treatment plants are the Palm Valley and Sarival WRFs. Combined, the new treatment facilities will provide tertiary wastewater treatment and reclamation for all of the sewage generated in RAZ 265, 266 and two additional developments outside these planning areas (Wigwam Creek and Stardust Development).

The Palm Valley WRF will be designed and constructed in two phases. Phase I will have an average day capacity of 4.1 MGD and a full build-out capacity of 8.2 MGD. Preliminary engineering design of Phase I has begun. The facility is expected to be complete and operational by December 2001.

To conserve time, LPSCo has opted for a design/build approach for the initial phase of this facility. The second phase expansion is anticipated to occur after approximately 2012. The initial flow to the Palm Valley facility will come from diversion of the current 1.1 MGD LPSCo flow to the City of Goodyear's 157<sup>th</sup> Avenue plant. As part of the original service agreement with the City of Goodyear, LPSCo has the right to sell part of or all of its 1.4 MGD capacity back to the city. At the completion of Phase I of the Palm Valley facility, LPSCo will sell 1.0 MGD of the 1.4 MGD capacity in the 157<sup>th</sup> Avenue plant back to the City of Goodyear.

This capacity will allow the City of Goodyear time to upgrade and expand their existing facilities to accommodate future flows from the Central Planning area (RAZ 280 and 281) and will provide a minimum of 0.4 MGD capacity surplus for LPSCo at the 157<sup>th</sup> Avenue plant.

After Phase I completion of the Palm Valley WRF, the second plant will be designed and constructed. This second facility will be constructed near the intersection of Sarival Avenue and McDowell Road. The Sarival WRF will also be designed and constructed in two phases. Phase I will have an average day capacity of 4.1 MGD with a build-out capacity of 8.2 MGD. The first phase of construction for this facility is anticipated to occur in approximately 2006. Until that time, current and near-future flows will use the existing 0.4 MGD surplus LPSCo capacity at the City of Goodyear 157<sup>th</sup> Avenue treatment plant. Phase II construction is anticipated to occur after 2016.

The following sub-sections describe the proposed wastewater treatment plants, alternatives, and regulatory requirements for implementation.

**A. Description of Existing Wastewater Treatment Facilities**

There are no existing wastewater treatment facilities in RAZ 265 or 266 to accommodate the increasing wastewater generation from the LPSCo service area. Currently, wastewater from the LPSCo service area is routed approximately 5.7 miles to the City of Goodyear 157<sup>th</sup> Avenue WWTP. Because the wastewater generation from the LPSCo service area is approaching the current capacity agreement of 1.4 MGD, LPSCo proposes to construct new water reclamation plants in their service area. The addition of these facilities will reduce the overall capital and operational costs for current and future LPSCo customers by eliminating the need for 6 miles of additional trunk sewer and lift stations. In addition, consumers will benefit from the reduced cost of reclaimed water, which will be processed much closer to the point of reuse.

**B. Summary of Alternatives**

Five alternatives have been considered to evaluate the treatment of the increasing wastewater flows from the LPSCo service area. Black & Veatch, LLP prepared a study of these alternatives in July 1998. A copy of the *Preliminary Wastewater Planning Study for SunCor and Litchfield Park Service Company* is included in appendix F of this amendment application for further review. The following alternatives were studied:

Alternative 1:

LPSCo continued contribution of wastewater flow to the Goodyear 157<sup>th</sup> Avenue WWTP and purchase of additional capacity to be provided at the 157<sup>th</sup> Avenue WWTP.

Alternative 2:

Construction of a LPSCo wastewater treatment plant in the North Planning Area and sale of all interest in the City of Goodyear 157<sup>th</sup> Avenue WWTP.

Alternative 3:

LPSCo continued contribution of wastewater flow to the Goodyear 157<sup>th</sup> Avenue WWTP and purchase of additional capacity and process upgrades to be provided at the 157<sup>th</sup> Avenue WWTP.

Alternative 4:

Deferred construction of a North Planning Area wastewater treatment plant until the LPSCo wastewater contribution to the Goodyear 157<sup>th</sup> Avenue WWTP increases to 2.0 MGD.

Alternative 5:

Deferred construction of a North Planning Area wastewater treatment plant until the LPSCo wastewater contribution to the Goodyear 157<sup>th</sup> Avenue WWTP increases to 1.4 MGD.

A more thorough evaluation of these alternatives is presented in the *Preliminary Wastewater Planning Study for SunCor and Litchfield Park Service Company* (Black & Veatch report) provided in Appendix F. This 208 Amendment application is based on the same alternatives presented in the Black & Veatch report with the exception that Alternatives #2, #4 and #5 analyzed construction of a single facility and did not provide analysis for the construction of two "twin" plants. The capacities and locations of the two proposed LPSCo water reclamation facilities are the same as identified in the collection system study as the connection points for outfalls to the City of Goodyear 157<sup>th</sup> Avenue WWTP. In Black & Veatch's report, Alternative #2 was the recommended alternative from both a capital cost and long-term operational cost analysis. This proposed MAG 208 Amendment is based on Alternative #2 with the exception of the development of twin reclamation facilities. The following paragraphs summarize the five alternatives studied by Black & Veatch in 1998.

### **Alternative 1 – Continued Participation in Goodyear WWTP**

Alternative 1 is based on the continued conveyance of LPSCo wastewater flow to the City of Goodyear 157<sup>th</sup> Avenue WWTP. Currently, wastewater from the LPSCo service area is conveyed through the Sarival Avenue 24" interceptor sewer. Sewage flows are anticipated to exceed the 24" sewer capacity by 2003. Thus, construction of additional sewer pipelines (approximately 5.7 miles of pipe) and the purchase of additional pipeline capacity from other parties would be required to handle ultimate flows from the service area. In addition, LPSCo would be required to fund or purchase additional treatment capacity at the City of Goodyear 157<sup>th</sup> Avenue WWTP.

This alternative also requires the construction of effluent pumping facilities and 5.7 miles of transmission mains from the city's treatment facility to the LPSCo service areas for irrigation. This alternative has the highest capital, O&M, and present value costs of any of the other alternatives.

### **Alternative 2 – Construction of a LPSCo WRF**

Alternative 2 provides for the design and construction of a LPSCo wastewater treatment plant in the North Planning Area and the sale of all capacity at the 157<sup>th</sup> Avenue plant. The existing 1.4 MGD capacity at the 157<sup>th</sup> Avenue WWTP would be provided in the new facility(s) located in the Northern Planning Area (RAZ 265 and 266). Because of the cost of maintenance and operations of the Goodyear facility and the replacement cost of the 1.4 MGD capacity in the 157<sup>th</sup> Avenue facility, the cost of this alternative was the lowest of all of the alternatives evaluated, but only slightly lower than Alternatives 4 and 5.

### **Alternative 3 - Continued Participation in Goodyear WWTP with Process Upgrades**

This alternative is similar to Alternative 1 except that the existing City of Goodyear 157<sup>th</sup> Avenue WWTP aeration and filtration processes would be optimized to provide an increase in treatment capacity from 3.0 MGD to 8.0 MGD. It was estimated the upgrade and expansion would cost approximately \$14 million to \$16 million. The upgrade would allow LPSCo to obtain a total capacity of 3.0 MGD at the city's treatment facility until the year 2008. At that time, an additional 5.2 MGD capacity would be required to handle additional wastewater flows from the LPSCo service area.

This alternative is less expensive than Alternative 1, but significantly more expensive than Alternatives 2,4 and 5.

**Alternative 4 – Participation in Goodyear WWTP to 2.0 MGD; then construction of a LPSCo WRF**

Alternative 4 is similar to the recommended alternate to construct a LPSCo wastewater treatment plant in the North Planning Area (Alternate 2). They differ in that the construction of the LPSCo plant(s) would be delayed for approximately 3 years (2003). LPSCo currently has 2.0 MGD of capacity in the Sarival Avenue 24" interceptor sewer. Because LPSCo has a treatment capacity allocation of only 1.4 MGD at the City of Goodyear 157<sup>th</sup> Avenue WWTP, an additional 0.6 MGD of treatment capacity is required to fully maximize the trunk sewer capacity. LPSCo could fund the additional treatment capacity as stated above in Alternative 3.

This alternative has only slightly higher capital cost as compared to Alternative 2 because it maximizes the use of the existing Sarival Avenue 24" interceptor sewer.

**Alternative 5 - Participation in Goodyear WWTP to 1.4 MGD; then construction of a LPSCo WRF**

Alternative 5 is similar to Alternative 4 with the exception that wastewater flow from the LPSCo service area will be conveyed to the 157<sup>th</sup> Avenue WWTP at the LPSCo maximum allocated treatment capacity of 1.4 MGD. As in Alternative 4, the construction of the proposed North Planning Area treatment plant(s) would be delayed 1 to 2 years. The current flow from the LPSCo service area is 1.1 MGD and is expected to exceed the maximum allocated treatment capacity of 1.4 MGD by the year 2001.

Alternative 5 is similar in cost to Alternative 4 but substantially less than Alternatives 1 and 3.

**C. Discussion of the Proposed Construction of Two New LPSCo WRFs**

**1. Site Location and Property Ownership**

The proposed wastewater treatment plants will be constructed in City of Goodyear, Maricopa County, Arizona. Figure 2 in Appendix A illustrates the proposed location of the two treatment facilities. Both the Palm Valley WRF and the Sarival WRF will be constructed on property currently owned by SunCor Development Company. The property will be sold to Litchfield Park Service Company for the purpose of maintaining and operating the two facilities. The Palm Valley WRF will be located on McDowell Road between Bullard Avenue and Litchfield Road. The Sarival WRF will be located near the intersection of Sarival Avenue and McDowell Road.

2. Population Estimates

For the purpose of this amendment, four regional areas are used to define the total LPSCo service area. These four areas include the City of Goodyear's Regional Analysis Zone (RAZ) 265, RAZ 266 (Litchfield Park), the Stardust Development service area, and the Wigwam Creek service area. For planning purposes, these areas are expected to contribute wastewater flow to the two proposed wastewater treatment plants. Figure 1 in Appendix A illustrates the areas that make up the complete LPSCo service area.

The following table summarizes the population projection for each of the four service areas in the LPSCo service area through the year 2020. The population numbers presented for RAZ 265 and 266 are taken from the MAG *Socioeconomic Projections Interim Report* (June, 1997). The Stardust Development and the Wigwam Creek Development service areas were assumed to be excluded from the RAZ 265 and 266 population numbers and are taken from separate sewer conveyance studies by SMF Engineering and Black & Veatch LLP.

Population by Planning Area					
Year	RAZ 265 <sup>1</sup>	RAZ 266 <sup>1</sup> (Litchfield Park)	Stardust Development <sup>2</sup>	Wigwam Creek Development <sup>2</sup>	Total
2000	8,671	4,876	3,011	3,746	20,304
2005	11,336	6,517	6,500	7,200	31,553
2010	14,410	8,452	8,600	10,700	42,162
2015	20,493	12,561	Built-out	Built-out	52,354
2020	30,139	14,688	Built-out	Built-out	64,127

<sup>1</sup> Source: *June 1997 MAG Socioeconomic Projections Interim Report*.

<sup>2</sup> Calculated by P.A.C.E. Full build-out AAD flows were taken from the *Draft Stardust/Wigwam Creek Conveyance and Treatment Study*. Full build-out for Stardust and Wigwam Creek was assumed for the years between 2008 and 2010. Calculation assumptions: Unit flows of 100 gpcpd and a 50% population increase every five years.

Future wastewater flows were studied in *Addendum Number 2 to the Wastewater Master Plan Litchfield Master Planned Community* (SMF Report) that was prepared by SMF Engineering Corporation in January 1998. Black & Veatch prepared the *Preliminary Wastewater Planning Study for SunCor and Litchfield Park Service Company* in July 1998. The SMF Report only provides full build-out wastewater flow projections. The Black & Veatch report used the full build-out wastewater flow projections from the SMF Report and calculated the flow projections over time. The following table summarizes wastewater estimates based on MAG and Black & Veatch population estimates:

Year	Wastewater Flow Projections (MGD)			
	Based on MAG Projections		Based on Black & Veatch Report	
	AAD	Peak Hourly <sup>1</sup>	AAD	Peak Hourly <sup>1</sup>
2000	2.03	4.47	1.32	2.90
2005	2.66	5.85	3.12	6.86
2010	3.43	7.55	5.49	12.08
2015	4.79	10.54	7.87	17.31
2020	6.41	14.10	10.24	22.53

<sup>1</sup> Calculated by P.A.C.E. with a peaking factor of 2.2.

The wastewater flow projections from the Black & Veatch Report generally have a higher annual average day flow than the MAG interim projections. For the purpose of this amendment and future planning, the Black & Veatch population numbers are assumed to be more accurate because the Black & Veatch report was specific to the Goodyear North Planning Area where as the MAG projections are based on countywide modeling.

### 3. Water Reclamation Facility Description

The Palm Valley and Sarival WRFs will be based on biological oxidation by the activated sludge process. Both treatment plants will include screening, grit removal, anoxic/aerobic biological nutrient removal, ozone disinfection, and multi-medium filtration. The treatment process will utilize anoxic mixing, aerobic mixing, and static reaction capabilities to provide biological oxidation, nitrification, denitrification, phosphorous removal, and clarification within one reactor tank. To provide process redundancy and obtain a Phase I average-day capacity of 4.1 MGD, a minimum of two reactor tanks will be constructed.

Wastewater will be treated to exceed the current ADEQ Title 18 requirements for unrestricted irrigation re-use. There currently are four 18-hole golf courses served by LPSCo with four future courses planned and numerous public parks, which will be converted to reclaimed water irrigation. LPSCo plans to provide the reclaimed water at less cost than current groundwater or surface water prices. Effluent from the treatment facilities will be stored in lined golf course lakes and water feature amenities then distributed as needed for irrigation. It is estimated that the irrigation demand in the North Planning Area will not require as much reclaimed water as will be produced, therefore a secondary discharge system will be developed for both plants to allow for groundwater recharge of the underlying aquifer. A summary of water balance calculations for each phase of expansion is presented in the Appendix of this application.

Both facilities will generate waste sludge, which will be directed to an aerobic digestion process. The sludge digestion process will provide pathogen and vector attraction reduction equivalent to the EPA title 40 CFR art 503 regulations for Class A biosolids. Biosolids will be stored and sold or hauled to landfill for disposal.

a) Facility Capacity

Both the Palm Valley WRF and Sarival WRF will be constructed in two general phases. The Palm Valley facility Phase I will have an average day capacity of 4.1 MGD with a second phase expansion to 8.2 MGD. The Sarival facility will have a Phase I average day capacity of 4.1 MGD and a full build-out capacity of 8.2 MGD. The two new wastewater treatment facilities will be capable of treating the projected wastewater flows from the LPSCo service area with a 38% reserve capacity for projection errors and modifications from the assumed modeling land uses. The projected wastewater flows will be divided between the two wastewater treatment plants and development of certain areas will dictate actual facility construction and expansion schedules. The following summarizes the proposed treatment plant capacities and anticipated construction time frames:

<u>Treatment Plant</u>	<u>Annual Average Day Treatment Capacity</u>		
	Phase I (year)	Phase II (year)	Total Capacity
Palm Valley WRF	4.1 MGD (2001)	4.1 MGD (2012)	8.2 MGD
Sarival WRF	4.1 MGD (2006)	4.1 MGD (2016)	<u>8.2 MGD</u>
	<b>TOTAL</b>		<b>16.4 MGD</b>

b) Facility Location

The proposed locations of the two treatment plants were based on information provided in the *Addendum Number 2 to Wastewater Master Plan Litchfield Master Planned Community* prepared by SMF Engineering in January 1998 (SMF report). The SMF report is provided in Appendix G for reference. The report evaluated the projected wastewater flows for build-out conditions of the Goodyear North Planning Area and the proposed locations of collection sewers. The report identified two trunk sewer connection locations for conveying wastewater from the North Planning Area to the City of Goodyear 157<sup>th</sup> Avenue WWTP. The entire North Planning Area could be served by a combination of the existing lift stations and gravity collection sewers with major additions to the two main trunk sewers (approximately 5.7 miles of sewer). These two trunk connections are in the general location of the proposed wastewater treatment facilities.

Currently, wastewater from the eastern portion of the LPSCo service area flows to a junction point near the intersection of Litchfield Road and McDowell Road. From this location, the wastewater is pumped to another lift station at Bullard Avenue and McDowell Road. Additional wastewater flows from the remainder of the LPSCo service area are collected at this lift station and pumped west of the RID Canal and then by gravity to an outfall located at the intersection of Sarival Avenue and McDowell Road. From this point, all wastewater is conveyed to the City of Goodyear 157<sup>th</sup> Avenue WWTP.

The proposed Palm Valley WRF has been located to eliminate both existing lift station. The flows to the Palm Valley WRF will be by gravity and new gravity trunk line will be built on McDowell Road between the two old lift stations. The proposed Sarival WRF has been located to intercept the remaining wastewater flow at the Sarival Avenue outfall.

c) Wastewater Reclamation Requirements

Treated effluent from the Palm Valley WRF and the Sarival WRF will be reclaimed for irrigation and recharge. The treated effluent is expected to of very high water quality, which will meet or exceed all local, state and federal requirements. A summary of water balance showing the projected reclaimed water production and re-use volumes are provided in Appendix C.

Reclaimed wastewater will be used in non-restricted areas such as parks and golf courses. Treated effluent is expected to exceed Arizona Administrative Code Title 18, Chapter 9 reclaimed water quality criteria for the irrigation of wastewater where public access is not restricted. Reuse activities will comply with the requirements of reuse permits issued through the Arizona Department of Environmental Quality (ADEQ) and Maricopa County Department of Environmental Services. Both facilities will require ADEQ Aquifer Protection Permits (APP).

As the amount of reclaimed water increases and exceeds seasonal irrigation demands, reclaimed wastewater will be directed to recharge facilities. Reclaimed wastewater for recharge will be required to meet the aquifer water quality standards established by ADEQ. These activities will be conducted in compliance with the Underground Storage Facility and Water Recovery Permits issued by the Arizona Department of Water Resources (ADWR).

d) Stormwater Discharges

The construction and operation of the proposed wastewater treatment plants are not anticipated to produce stormwater discharges. The treatment plants will be designed to contain stormwater runoff onsite. There will be no non-point discharges of stormwater from the proposed treatment plants. The EPA and ADEQ will permit any stormwater discharges to Waters of the United States under the National Pollutant Discharge Elimination System (NPDES) program.

4. Sanitary Districts, Private Utilities, and WRF Service Areas

The proposed locations of the Palm Valley WRF and the Sarival WRF are within the current LPSCo service area in the City of Goodyear. Neighboring cities and communities within a 3-mile radius include the City of Avondale, Litchfield Park, and Unincorporated areas of Maricopa County.

The construction of the proposed treatment plants will directly impact the City of Goodyear's 157<sup>th</sup> Avenue WWTP. 1.1 MGD of existing wastewater flow from the LPSCo service area will be re-routed to the new Palm Valley facility.

LPSCo will sell 1.0 MGD of their 1.4 MGD capacity allocation back to the City of Goodyear. Sewage flow to the 157<sup>th</sup> Avenue treatment facility is nearing the current plant capacity of 3.0 MGD. The re-routing of the current LPSCo service area flow and the acquisition of 1.0 MGD capacity will allow the City of Goodyear time to upgrade processes and expand the 157<sup>th</sup> Avenue WWTP to better serve the Central Goodyear Planning Area. In addition, the City of Goodyear will not have to include the North Planning Area when considering expansion to their treatment and collection facilities.

No other existing treatment facilities, sanitary districts or certified service areas would be impacted by the construction of the two treatment plants.

#### **D. Permitting Requirements**

The Palm Valley WRF and the Sarival WRF will require the following permits and clearances:

- Aquifer Protection Permit (APP) issued by the Arizona Department of Environmental Quality (ADEQ)
- Reclaimed Wastewater Reuse Permit
- 401 Water Quality Certification issued by ADEQ
- Underground Storage Facility permit and Water Storage permit for groundwater recharge by the Arizona Department of Water Resources (ADWR)
- Archeological and Native Plants clearances through the Arizona State Land Department, and an Environmental Assessment – Phase I clearance
- Right-of-way easement from the Arizona State Land Department
- Biosolids (sewage sludge) re-use requirements as stated in 40 CFR 503 and regulated by the Environmental Protection Agency
- EPA/ADEQ NPDES Permit

#### **E. Pretreatment Requirements**

The Code of Federal Regulations Part 403 Section 403.8 states, "any POTW with a total design flow of 5 million gallons per day and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards, will be required to establish a pretreatment program." No industrial users are anticipated to discharge into the two proposed wastewater treatment plants. Thus, neither facility is required to comply with pretreatment requirements. If industrial users are added to the service area of either facility, a pretreatment program will be developed with the industrial user being subject to pretreatment standards as regulated by the EPA.

## **F. Sludge Management Requirements**

The Palm Valley WRF and the Sarival WRF will be subject to biosolids regulations as promulgated in 40 CFR 503. Sewage sludge will be generated from both treatment plants. As defined in 40 CFR 501, sewage sludge means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or wastewater treatment, scum, septage, portable toilet pumpings, Type III Marine Sanitation device pumpings, and sewage sludge products. Sewage sludge does not include grit, screening, or ash generated during the incineration sewage. The 40 CFR 503 regulatory requirements include standards for the use and disposal of sludge and consist of general requirements, pollutant limits, management practices and operational standards for the final use or disposal of sewage sludge generated during the treatment of domestic sewage. It also includes pathogen and vector attraction reduction requirements for sewage sludge applied to land or placed in a surface disposal site.

The two proposed wastewater treatment plants will meet the 40 CFR Part 32 requirements for classification of sewage sludge as Class A Biosolids. By meeting the most stringent requirements for sludge treated for re-use, the biosolids produced at the facilities will be available for use by farming operations as well as private residential use.

## **II. Construction**

### **A. Construction and Operation Responsibility**

Litchfield Park Service Company will develop and implement the plan for the construction and operation of the Palm Valley WRF, the Sarival WRF and related service areas. Litchfield Park Service Company will be solely responsible for funding the project. LPSCo's most recent Corporate Financial Statement is presented in Appendix E.

The proposed schedule of construction for the Palm Valley WRF is shown in Appendix D. The permitting phase of the project is anticipated to take approximately 6 months. Construction will follow immediately.

### **B. Sources of Pollution**

The construction of the wastewater treatment plants will not be a significant source of pollution. Anticipated pollution from construction activities include fugitive dust, construction equipment exhaust emissions, and construction related solid waste. Erosion control measures during construction and grading will be implemented to prevent potential storm water runoff to water bodies. The developer and project contractor shall comply with local regulatory requirements and provisions of construction permits issued.

### **III. Financing and Other Actions to Implement Plan**

#### **A. Financing Plan**

Litchfield Park Service Company has made financial plans for the construction and operation of the proposed treatment plants. The new facilities will be constructed using private, tax exempt and or developer/development funds.

#### **B. Financing Capability to Construct the Facility**

Litchfield Park Service Company has the financial capacity to construct and operate the Palm Valley WRF and the Sarival WRF. A copy of LPSCo's 1999 Corporate Financial Statement is included in Appendix E.

### **IV. Impact and Implementation Plan**

#### **A. Implementation Plan**

The implementation of construction and operation of the wastewater treatment plants will be planned and executed by the Litchfield Park Service Company. LPSCo has hired an engineering firm and construction firm to design/build the Palm Valley Wastewater Treatment Plant. Design completion is expected to be finished in September 2000. A draft schedule of construction is provided in Appendix D.

LPSCo will hire ADEQ certified operational staff to properly operate and maintain the new wastewater treatment plants. These staff members will be involved in the planning, design and construction of the two facilities. Upon completion of the Palm Valley WRF, the contractor is required to provide 6 months of operation and maintenance training to LPSCo's treatment plant staff.

#### **B. Impacts of the Proposed Wastewater Treatment Plants**

The construction and operation of the Palm Valley WRF and the Sarival WRF are not expected to adversely impact any neighboring municipality, sanitary district, certificated area, community or business. The Palm Valley WRF will initially alleviate excess wastewater flow to the City of Goodyear's treatment facility by re-routing 1.1 MGD currently conveyed to the 157<sup>th</sup> Avenue WWTP.

Potential environmental issues include odor, noise, vectors and hazardous materials. The following briefly discuss and addresses these issues.

Odors: The biological treatment process utilizes a significant amount of sub-surface aeration reducing the potential for odor problems. Both plants will include odor-scrubbing systems for the headworks and sludge pressing areas. The sludge is in an aerated liquid state while on-site and during removal for sludge disposal, reducing the potential for odor concerns from sludge processing operations.

Noise: All process equipment will be enclosed in insulated masonry buildings. Additionally, the aeration blowers will be provided with critical silencers and housed in sound attenuation enclosures. All pumps and aerators will be submersible type and will not produce noise.

Vectors: The treatment facilities will be properly operated and maintained to reduce vector attraction. Sludge processing facilities will be covered and enclosed in building structures. The irrigation storage areas will be prevented from becoming breeding area for mosquitoes and other insects by circulation of stored water and the introduction of mosquito fish.

Hazardous Materials: The wastewater treatment facility will not accept any hazardous materials. Only municipal sewage from the LPSCo service areas will be accepted. An emergency plan will be developed to isolate and contain any hazardous materials discovered. The proposed treatment system does not require the use of any hazardous materials beyond the storage of liquid sodium hypochlorite, ozone for disinfection and diesel fuel for the back-up power generator. A current set of Material Safety Data Sheets (MSDS) will be maintained for all chemicals, polymers, and bio-augmentation products use at the facilities.

### **C. Solution for Casitas Bonitas**

LPSCo recognizes that a serious situation exists at Casitas Bonitas that has eluded a solution to date. LPSCo is willing to provide wholesale wastewater services to Casitas Bonitas with certain conditions:

- LPSCo to have involvement with closure of existing facility.
- That the ACC grant specific rates to allow the treatment without any economic hardship in existing LPSCo customers or the company.

### **V. Public Participation**

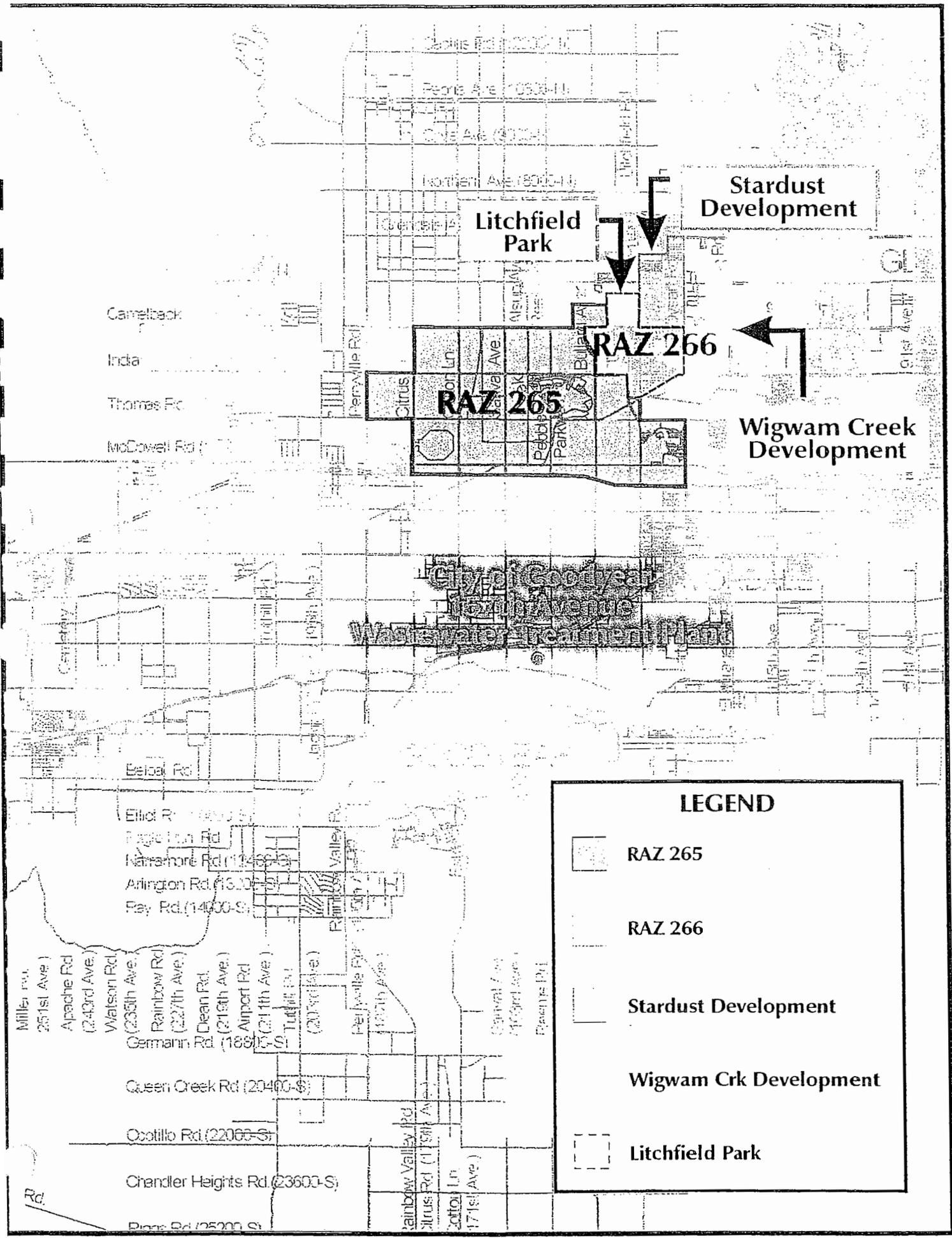
As part of the MAG Water Quality Management Plan Amendment Process, the Maricopa Association of Governments (MAG) with cooperation of the City of Goodyear is responsible for ensuring that the following actions are implemented after submittal of the draft 208 Amendment:

- Notify all parties of a public hearing on the 208 Amendment by sending notices to interested parties at least 30 days prior to the public hearing. The notice may

include the date, time, subject and location of the public hearing for the 208 Amendment.

- Notify public at least 45 days in advance of the public hearing by advertising in a publication. The notice should may the date, time, subject and location of the public hearing for the 208 Amendment.
- Notify public that draft amendments are available for public viewing 30 days before the hearing. This may include the location, days, and time of availability.
- Submittal of an affidavit of publication of the public notice.
- Submittal of a responsiveness summary for the public hearing.

**APPENDIX A**  
**LOCATION AND SITE MAPS**



**Stardust Development**

**Litchfield Park**

**RAZ 266**

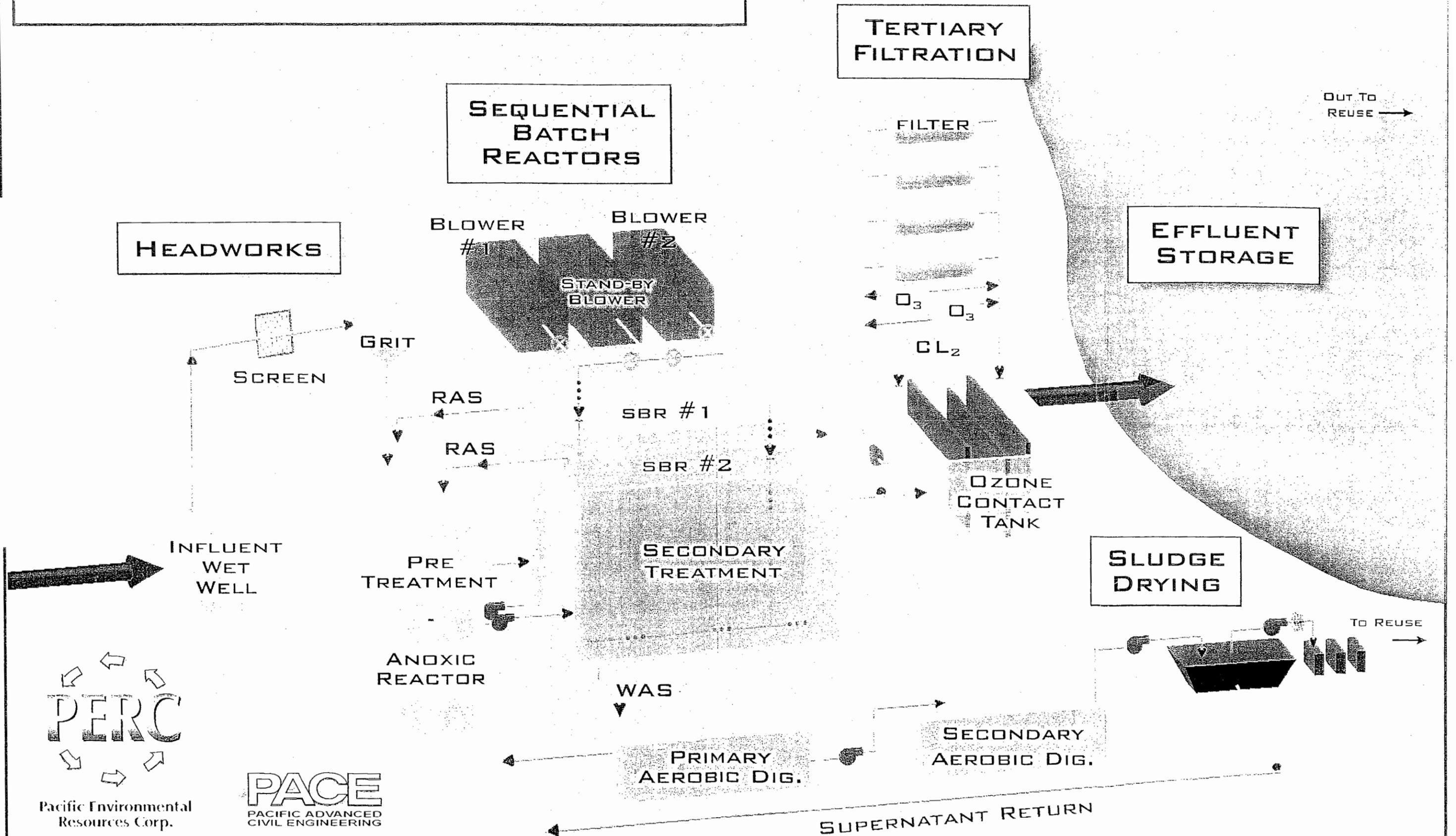
**RAZ 265**

**Wigwam Creek Development**

**LEGEND**

-  RAZ 265
-  RAZ 266
-  Stardust Development
-  Wigwam Crk Development
-  Litchfield Park

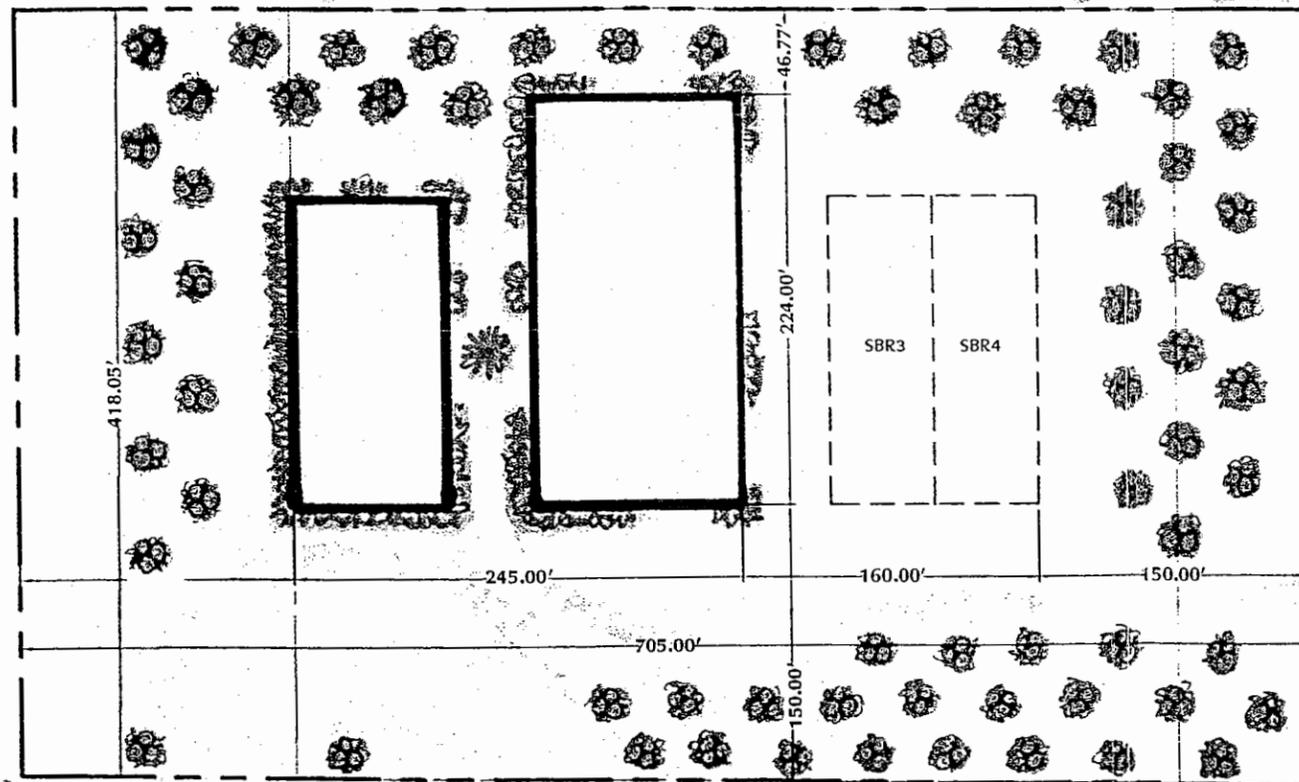
# TREATMENT SCHEMATIC



Pacific Environmental Resources Corp.

**PACE**  
PACIFIC ADVANCED CIVIL ENGINEERING

# Palm Valley Facility Site



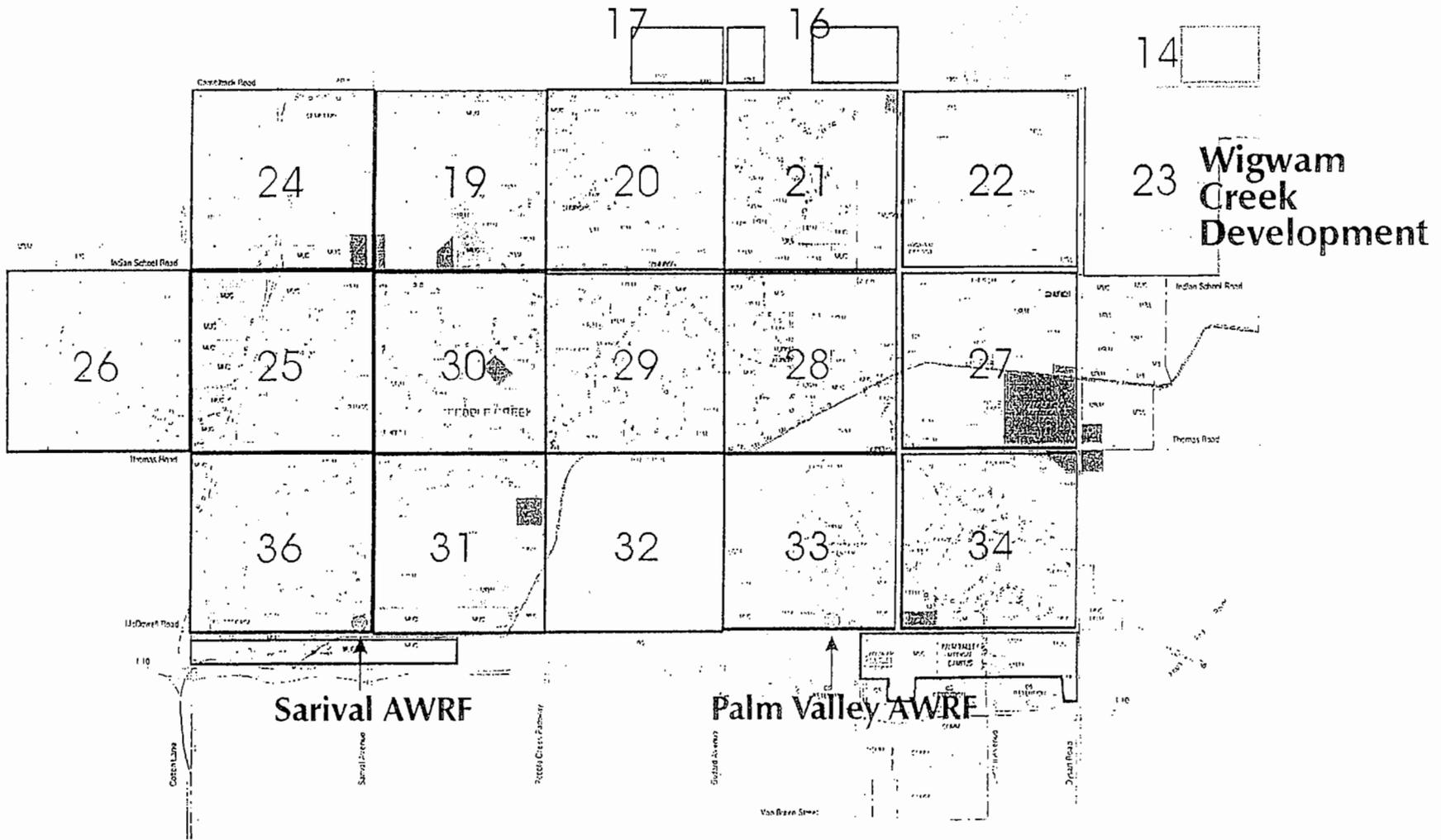
McDowell Road



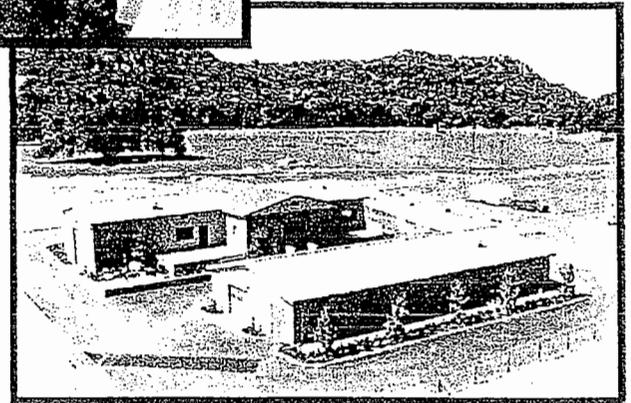
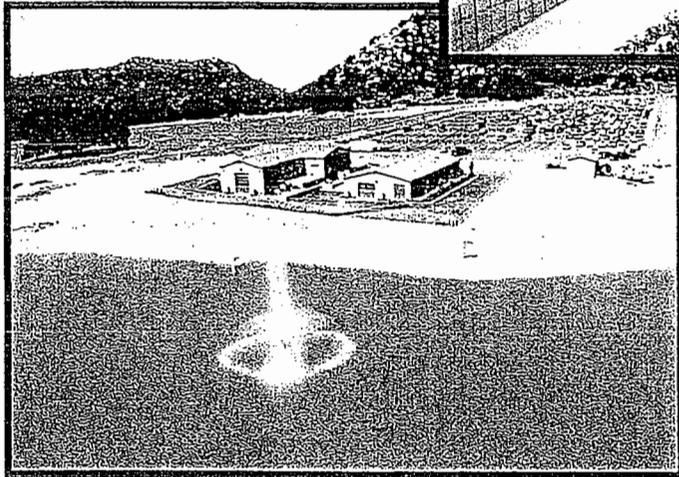
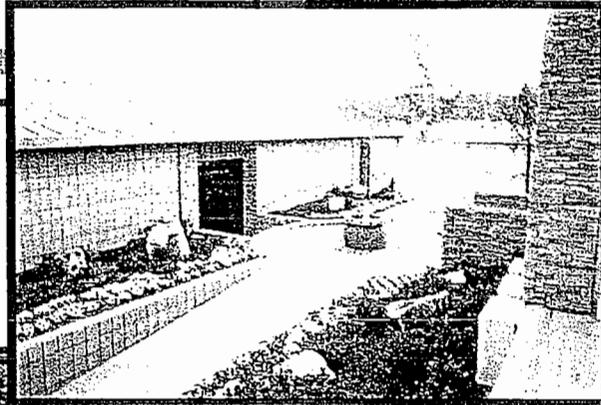
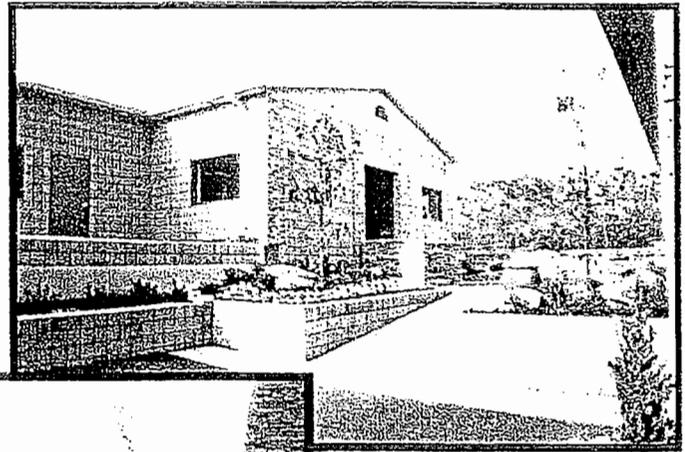
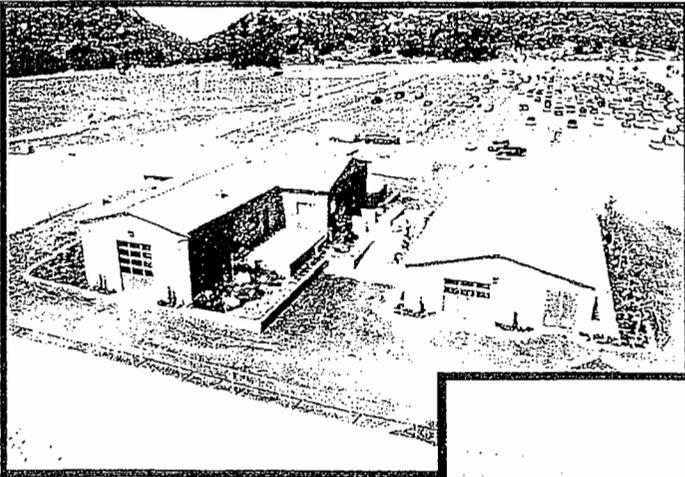
# Wastewater Service Areas

CB  
Valley  
Utilities

Stardust  
Development



# WATER RECLAMATION FACILITY



BARONA CASINO-LAKESIDE, CALIFORNIA  
750,000 GPD - EXPANDABLE TO 1.5 MILLION.

DESIGNED BY:

**PACE**  
PACIFIC ADVANCED  
CIVIL ENGINEERING

CONSTRUCTED BY:

**PERC**

Pacific Environmental  
Resources Corp.



**APPENDIX B**  
**PALM VALLEY WRF**  
**PROCESS DESIGN CRITERIA**

TREATMENT CALCULATIONS  
for  
LPSCO PALM VALLEY WRF

PEAKING

FACTORS

AERATION CALCULATIONS

Given:

lbs O <sub>2</sub> / lbs BOD =	1.2
lbs O <sub>2</sub> / lbs TKN =	4.6
lbs O <sub>2</sub> / lbs NO <sub>3</sub> (50% Denitrification Credit) =	2.3
Type of Aeration	Jet Aeration
Alpha correction =	0.90
Beta correction =	0.95
Theta correction =	1.02
D.O. operational (mg/l) =	1.00
D.O. clean water (mg/l) =	9.09
D.O. @ std. temp (mg/l) =	11.23
Wastewater Temp (C) =	20.0
lbs O <sub>2</sub> / lbs air =	0.23
lbs air / cf air =	0.08
Clean water eff. (%) =	22.00
Calculated Values:	
Actual O <sub>2</sub> Demand (lbs O <sub>2</sub> /day) =	11,369
SOTR/AOTR ratio =	1.3
Standard O <sub>2</sub> demand (lbs O <sub>2</sub> /day) =	15,048.8
Standard O <sub>2</sub> demand (lbs O <sub>2</sub> /hr/tank) =	990.1
Hours of Aeration / Day	7.6
Blower Capacity Required (CFM)	3,021

DESIGN FLOW RATES

Day Generation ADG (MGD)	4.1
Maximum Day Generation (MGD)	8.2
Hour Generation (GPM)	6,264
In (mg/l) =	220
TSS In (mg/l) =	300
TKN In (mg/l) =	30
TP In (mg/l) =	8
Q (lbs/day) =	7511.0
TSS (lbs/day) =	10242.2
TKN (lbs/day) =	1024.2
TP (lbs/day) =	273.1

AIRC REACTOR

Number of Basins	1
Length (ft)	106.25
Width (ft)	52.25
Fluid Depth Low Level (ft)	12.5
Fluid Depth Stop Interact Level (ft)	20.0
Depth Alarm Level (ft)	23.0
Tank Working Volume (gal)	830,514
Average Tank Working Volume (gal)	673,937
Storage Time @ Peak Hour Generation (min)	70
Average Hydraulic Retention Time (hrs)	3.9

SEMI-BATCH REACTORS

Number of Basins	2
Length of Reactor (ft)	180.25
Width of Reactor (ft)	52.25
Fluid Depth @ TWL (ft)	24.0
Fluid Depth (ft)	5.0
Volume / Reactor @ TWL (gal)	1,503,132
Volume / Reactor (gal)	313,153
Average Hydraulic Retention Time (hrs)	17.6
Decant Rate (gpm)	16,500

SEMI-BATCH REACTOR OPERATIONS

Number of Individual Pump Capacity (GPM)	5500
Total Batch Time Available (min.)	220.0
Total Batch Time Available (hrs.)	3.7

OPERATING BATCH VOLUME (gal/batch)

ADG	313,153	MDG	313,153	PHG	313,153
Total Number of Influent Pumps	3	3	3	3	3
Number of Influent Pumps In Service	2	2	2	2	2
Influent Pumping Rate (GPM)	11,000	11,000	11,000	11,000	11,000
Fill Time (min.)	28.5	28.5	28.5	28.5	28.5

REACT

React Time per Batch (min.)	81.5	26.5	31.0
-----------------------------	------	------	------

SETTLING / DECANT

Settling Velocity (ft/hr)	6.00	6.00	6.00
Settle Time (min)	45.0	45.0	45.0
Settled Sludge Level (ft)	4.5	4.5	4.5
Influent Pumping Rate (GPM)	11,000	11,000	11,000
Rise Rate (ft/hr)	10.54	10.54	10.54
Settling Rate (ft/hr)	-4.54	-4.54	-4.54
Sludge Level at End of Batch (ft)	2.3	2.3	2.3
Settle/Decant Time (min.)	73.5	73.5	73.5
Total Batch Time Actual (min.)	183	128	114
Total Batch Time Actual (hrs.)	3.1	2.1	1.9

CONTRACTOR / FLOW EQ BASIN

Number of Basins	1
Length of Cell (ft)	106.50
Width of Cell (ft)	52.50
Fluid Depth @ TWL (ft)	17
Storage Volume @ TWL (gal)	710,883
Total Discharge Pump Rate (gpm)	6000
Total Discharge Capacity (MGD)	8.6
Max Operating Drawdown Required (ft)	7.1
Ozone Dose Concentration (mg/l)	5.0
Required Ozone Production (lbs/day)	360.0

TERTIARY FILTRATION

Number of Filter Units	8
Area per Unit (sq-ft)	125.0
Available Filter Area (sq-ft)	1,000.0
Max Flow Rate (GPM)	6,000.0
Filter Loading Rate (gpm/sq-ft)	6.0

SLUDGE DIGESTERS / STORAGE

Number of Reactors	2
Length of Reactor (ft)	106.50
Width of Reactor (ft)	52.50
Maximum Fluid Depth @ TWL (ft)	18.0
Maximum Storage Volume / Reactor @ TWL	752,806
Production lbs of Dry Sludge / lb BOD	0.8
Lbs of Dry Solids per Day	6,009
% VSS in Waste Sludge	80.0
Lbs VSS in Waste Sludge	4,807
Initial Volume of Sludge per Day (gpd)	96,063
Initial % Solids	0.75
Pre-thickened % Solids	2.0
Sludge Digester #1	
Liquid Sludge Volume Entering Digester #1 (gal/d)	36,024
Total Days of Sludge Storage - Digester #1	20.9
Average Low Sludge Temp Deg. C	25.0
Total Deg.-Days Digester #1	522
% VSS Reduction (from EPA curve)	40.0
Solids Destroyed in Digester #1 (lbs/d)	1,922.8
Heat Generated by VSS Red. Digester #1 (btu/hr)	520,759
Sludge Digester #2	
Solids Entering Digester #2 (lbs/d)	4,086
Liquid Sludge Volume Entering Digester #2 (gal/d)	24,496
Total Days of Sludge Storage - Digester #2	15.4
Average Low Sludge Temp Deg. C	55.0
Total Deg.-Days Digester #2	845
Total Deg.-Days Digesters #1 & #2	1,368
Total % VSS Reduction for System	50.0
Solids Destroyed in Digester #2 (lbs/d)	480.7
Heat Generated by VSS Red. Digester #2 (btu/hr)	130,190
Total Digestion	
Total Dry Solids Output (lbs/day)	3,805
Total Sludge Volume to Dewatering System (Cubic M/d)	82

**APPENDIX C**  
**EFFLUENT REUSE WATER**  
**BALANCE CALCULATIONS**

# LPSCo Storage / Reuse Balance Calculations

## Phase I

Palm Valley Ph I - Sarival Not Constructed

DATE: 6/16/00

BY: PACE

JOB #: #7244E

		AREA OF TURF IRRIGATION *				570.0 ACRES							
		AREA OF LAKE SURFACE				150.6 ACRES							
	DAYS/ MON.	EFFLUENT WATER SUPPLY (MGD)	(AC-FT)	TURF IRRIGATION ET/MQ/AC	AC-FT	LAKE EVAPORATION ET/MQ/AC	AC-FT	TOTAL IRR&EVAP AC-FT	EXCESS EFFLUENT AC-FT	WATER TO RECH. AC-FT	IN LAKE STORAGE AC-FT	LAKE WATER SURF. ELEV.	
JANUARY	31	4.10	390.08	0.27	153.90	0.26	39.16	193.06	197.03	0.00	460.82	103.06	
FEBRUARY	28	4.10	352.33	0.31	176.70	0.33	49.70	226.40	125.93	0.00	586.75	103.90	
MARCH	31	4.10	390.08	0.38	216.60	0.51	76.81	293.41	96.68	0.00	683.43	104.54	
APRIL	30	4.10	377.50	0.47	267.90	0.66	99.40	367.30	10.20	0.00	693.63	104.61	
MAY	31	4.10	390.08	0.58	330.60	0.83	125.00	455.60	-65.52	0.00	628.12	104.17	
JUNE	30	4.10	377.50	0.70	399.00	0.89	134.03	533.03	-155.54	0.00	472.58	103.14	
JULY	31	4.10	390.08	0.78	444.60	0.92	138.55	583.15	-193.07	0.00	279.51	101.86	
AUGUST	31	4.10	390.08	0.75	427.50	0.83	125.00	552.50	-162.42	0.00	117.10	100.78	
SEPTEMBER	30	4.10	377.50	0.68	387.60	0.71	106.93	494.53	-117.03	0.00	0.00	100.00	START
OCTOBER	31	4.10	390.08	0.52	296.40	0.56	84.34	380.74	9.35	0.00	9.35	100.06	
NOVEMBER	30	4.10	377.50	0.38	216.60	0.38	57.23	273.83	103.67	0.00	113.02	100.75	
DECEMBER	31	4.10	377.50	0.30	171.00	0.37	55.72	226.72	150.78	0.00	263.79	101.75	
TOTALS	365	49.20	4580.32	6.12	3488.40	7.25	1091.85	4580.25	0.07	0.00			
										TOTAL YEARLY STORAGE GAIN	0.07	AC-FT	
										MAX STORAGE REQUIRED	693.63	AC-FT	
										MAX LAKE WATER SURF. ELEV. CHANGE	4.54	FEET	

\*Assumes 5 Golf Courses and Park Areas

# LPSCo Storage / Reuse Balance Calculations

Phase II  
Palm Valley Ph I - Sarival Ph I

DATE: 6/16/00

BY: PACE

JOB #: #7244E

		AREA OF TURF IRRIGATION *				900.0 ACRES							
		AREA OF LAKE SURFACE				150.6 ACRES							
	DAYS/ MON.	EFFLUENT WATER SUPPLY (MGD)	(AC-FT)	TURF IRRIGATION ET/MQ/AC	AC-FT	LAKE EVAPORATION ET/MQ/AC	AC-FT	TOTAL IRR&EVAP AC-FT	EXCESS EFFLUENT AC-FT	WATER TO RECH. AC-FT	IN LAKE STORAGE AC-FT	LAKE WATER SURF. ELEV.	
JANUARY	31	8.20	780.16	0.27	243.00	0.26	39.16	282.16	498.01	320.10	230.49	101.53	
FEBRUARY	28	8.20	704.66	0.31	279.00	0.33	49.70	328.70	375.97	320.10	286.36	101.90	
MARCH	31	8.20	780.16	0.38	342.00	0.51	76.81	418.81	361.36	320.10	327.62	102.18	
APRIL	30	8.20	755.00	0.47	423.00	0.66	99.40	522.40	232.60	320.10	240.12	101.59	
MAY	31	8.20	780.16	0.58	522.00	0.83	125.00	647.00	133.17	320.10	53.19	100.35	
JUNE	30	8.20	755.00	0.70	630.00	0.89	134.03	764.03	-9.04	0.00	44.15	100.29	
JULY	31	8.20	780.16	0.78	702.00	0.92	138.55	840.55	-60.39	0.00	-16.24	99.89	
AUGUST	31	8.20	780.16	0.75	675.00	0.83	125.00	800.00	-19.83	0.00	-36.07	99.76	
SEPTEMBER	30	8.20	755.00	0.68	612.00	0.71	106.93	718.93	36.07	0.00	0.00	100.00	START
OCTOBER	31	8.20	780.16	0.52	468.00	0.56	84.34	552.34	227.83	320.10	-92.27	99.39	
NOVEMBER	30	8.20	755.00	0.38	342.00	0.38	57.23	399.23	355.77	320.10	-56.60	99.62	
DECEMBER	31	8.20	755.00	0.30	270.00	0.37	55.72	325.72	429.28	320.10	52.58	100.35	
<b>TOTALS</b>	<b>365</b>	<b>98.40</b>	<b>9160.64</b>	<b>6.12</b>	<b>5508.00</b>	<b>7.25</b>	<b>1091.85</b>	<b>6599.85</b>	<b>2560.79</b>	<b>2560.79</b>			
										TOTAL YEARLY STORAGE GAIN	0.00	AC-FT	
										MAX STORAGE REQUIRED	327.62	AC-FT	
										MAX LAKE WATER SURF. ELEV. CHANGE	2.18	FEET	

\*Assumes 8 Golf Courses and Park Areas

# LPSCo Storage / Reuse Balance Calculations

Phase III  
Palm Valley Ph I & II - Sarival Ph I

DATE: 6/16/00  
BY: PACE  
JOB #: #7244E

		AREA OF TURF IRRIGATION *				1200.0 ACRES						
		AREA OF LAKE SURFACE				180.0 ACRES						
	DAYS/ MON.	EFFLUENT WATER		TURF IRRIGATION		LAKE EVAPORATION		TOTAL	EXCESS	WATER	IN LAKE	LAKE
		SUPPLY (MGD)	(AC-FT)	ET/MO/AC	AC-FT	ET/MO/AC	AC-FT	IRR&EVAP AC-FT	EFFLUENT AC-FT	TO RECH. AC-FT	STORAGE AC-FT	WATER SURF. ELEV.
JANUARY	31	12.30	1170.25	0.27	324.00	0.26	46.80	370.80	799.45	636.49	12.91	100.07
FEBRUARY	28	12.30	1057.00	0.31	372.00	0.33	59.40	431.40	625.60	636.49	2.01	100.01
MARCH	31	12.30	1170.25	0.38	456.00	0.51	91.80	547.80	622.45	636.49	-12.04	99.93
APRIL	30	12.30	1132.50	0.47	564.00	0.66	118.80	682.80	449.70	636.49	-198.84	98.90
MAY	31	12.30	1170.25	0.58	696.00	0.83	149.40	845.40	324.85	636.49	-510.49	97.16
JUNE	30	12.30	1132.50	0.70	840.00	0.89	160.20	1000.20	132.30	0.00	-378.19	97.90
JULY	31	12.30	1170.25	0.78	936.00	0.92	165.60	1101.60	68.65	0.00	-309.54	98.28
AUGUST	31	12.30	1170.25	0.75	900.00	0.83	149.40	1049.40	120.85	0.00	-188.70	98.95
SEPTEMBER	30	12.30	1132.50	0.68	816.00	0.71	127.80	943.80	188.70	0.00	0.00	100.00
OCTOBER	31	12.30	1170.25	0.52	624.00	0.56	100.80	724.80	445.45	636.49	-191.05	98.94
NOVEMBER	30	12.30	1132.50	0.38	456.00	0.38	68.40	524.40	608.10	636.49	-219.45	98.78
DECEMBER	31	12.30	1132.50	0.30	360.00	0.37	66.60	426.60	705.90	636.49	-150.04	99.17
TOTALS	365	147.60	13740.96	6.12	7344.00	7.25	1305.00	8649.00	5091.96	5091.96		
										TOTAL YEARLY STORAGE GAIN	0.00	AC-FT
										MAX STORAGE REQUIRED	510.49	AC-FT
										MAX LAKE WATER SURF. ELEV. CHANGE	2.84	FEET

START

\*Assumes 8 Golf Courses and Expanded Park Areas

# LPSCo Storage / Reuse Balance Calculations

## Phase IV

Palm Valley Ph I & II - Sarival Ph II

DATE: 6/16/00

BY: PACE

JOB #: #7244E

		AREA OF TURF IRRIGATION *				1200.0 ACRES							
		AREA OF LAKE SURFACE				180.0 ACRES							
	DAYS/ MON.	EFFLUENT WATER		TURF IRRIGATION		LAKE EVAPORATION		TOTAL	EXCESS	WATER	IN LAKE	LAKE	
		SUPPLY (MGD)	(AC-FT)	ET/MO/AC	AC-FT	ET/MO/AC	AC-FT	IRR&EVAP AC-FT	EFFLUENT AC-FT	TO RECH. AC-FT	STORAGE AC-FT	WATER SURF. ELEV.	
JANUARY	31	16.40	1560.33	0.27	324.00	0.26	46.80	370.80	1189.53	1000.00	482.00	102.68	
FEBRUARY	28	16.40	1409.33	0.31	372.00	0.33	59.40	431.40	977.93	1000.00	459.93	102.56	
MARCH	31	16.40	1560.33	0.38	456.00	0.51	91.80	547.80	1012.53	1000.00	472.46	102.62	
APRIL	30	16.40	1510.00	0.47	564.00	0.66	118.80	682.80	827.20	1000.00	299.65	101.66	
MAY	31	16.40	1560.33	0.58	696.00	0.83	149.40	845.40	714.93	612.05	402.54	102.24	
JUNE	30	16.40	1510.00	0.70	840.00	0.89	160.20	1000.20	509.80	612.05	300.29	101.67	
JULY	31	16.40	1560.33	0.78	936.00	0.92	165.60	1101.60	458.73	612.05	146.97	100.82	
AUGUST	31	16.40	1560.33	0.75	900.00	0.83	149.40	1049.40	510.93	612.05	45.85	100.25	
SEPTEMBER	30	16.40	1510.00	0.68	816.00	0.71	127.80	943.80	566.20	612.05	0.00	100.00	START
OCTOBER	31	16.40	1560.33	0.52	624.00	0.56	100.80	724.80	835.53	612.05	223.48	101.24	
NOVEMBER	30	16.40	1510.00	0.38	456.00	0.38	68.40	524.40	985.60	1000.00	209.08	101.16	
DECEMBER	31	16.40	1510.00	0.30	360.00	0.37	66.60	426.60	1083.40	1000.00	292.47	101.62	
<b>TOTALS</b>	<b>365</b>	<b>196.80</b>	<b>18321.28</b>	<b>6.12</b>	<b>7344.00</b>	<b>7.25</b>	<b>1305.00</b>	<b>8649.00</b>	<b>9672.28</b>	<b>9672.28</b>			
TOTAL YEARLY STORAGE GAIN										0.00	AC-FT		
MAX STORAGE REQUIRED										482.00	AC-FT		
MAX LAKE WATER SURF. ELEV. CHANGE										2.62	FEET		

\*Assumes 8 Golf Courses and Expanded Park Areas

**APPENDIX D**  
**PALM VALLEY**  
**DRAFT CONSTRUCTION SCHEDULE**



# Palm Valley WRF Construction Schedule

4-3-2000

2000 - 2001

	Quarter #1			Quarter #2			Quarter #3			Quarter #4			Quarter #5			Quarter #6			
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	
PERMITS				Permits															
DESIGN (Structure, Mechanical, Electrical)	Preliminary		Construction Design		Electrical														
MOBILIZATION			#																
EXCAVATION / BACKFILL				#	Excavation					4	Backfill	4	Backfill						
SBR SLAB						4	Slab												
SBR WALLS						#	Walls												
SBR DECK									4	Deck									
SBR BUILDING										#	Building								
SLUDGE-DISINFECTION SLAB								4	Slab										
SLUDGE-DISINFECTION WALLS								#	Walls										
SLUDGE-DISINFECTION DECK											3	Deck							
SLUDGE-DISINFECTION BUILDING											#	Building							
SBR MANIFOLDS									4	Manifolds									
SBR PUMPS										4	Pumps								
DECANTERS											4	Decanters							
OVERFLOW												4	Overflow						
HEADWORK PUMPS												4	Pumps						
SCREEN												4	Screen						
GRIT													4	Grit					
SLUDGE MANIFOLDS													4	Manifolds					
SLUDGE PUMPS														4	Pumps				
SLUDGE AIR															4	AF			
FILTRATION																4	Filtration		
DISINFECTION																	4	Disinfection	
PUMPS																	4	Pumps	
SLUDGE DRYING																		4	Sludge Drying
MOTOR CONTROL														8	Motor Control				
CONTROLS															8	Controls			
GENERATOR																4	Generator		
COMPUTERS/SOFTWARE																#	Computers/Software		
LANDSCAPE																#	Landscape		

**APPENDIX E**  
**LPSCO FINANCIAL DOCUMENTATION**  
**AND**  
**PALM VALLEY WRF COST ESTIMATES**



*Litchfield Park Service  
Company (A Wholly-Owned  
Subsidiary of SunCor Development  
Company, Inc.)*

*Financial Statements  
Years Ended December 31, 1999 and 1998, and  
Independent Auditors' Report*



Deloitte & Touche LLP  
Suite 1200  
2901 North Central Avenue  
Phoenix, Arizona 85012-2799

Telephone: (602)234-5100  
Facsimile: (602) 234-5186

## INDEPENDENT AUDITORS' REPORT

Board of Directors  
Litchfield Park Service Company  
Litchfield Park, Arizona

We have audited the accompanying balance sheets of Litchfield Park Service Company (a whollyowned subsidiary of SunCor Development Company, Inc.) (the "Company") as of December 31, 1999 and 1998, and the related statements of income, stockholders' equity, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the financial position of the Company at December 31, 1999 and 1998, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

  
April 25, 2000

LITCHFIELD PARK SERVICE COMPANY  
(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)

BALANCE SHEETS  
DECEMBER 31, 1999 AND 1998

ASSETS	1999	1998
UTILITY PLANT (Note 2):		
Utility plant in service	\$15,634,263	\$13,756,282
Less accumulated depreciation and amortization	1,962,842	1,719,292
Utility plant - net	13,671,421	12,036,990
CONSTRUCTION WORK IN PROGRESS	270,784	36,788
RESTRICTED CASH (Note 1)	3,800,490	
CURRENT ASSETS:		
Cash and cash equivalents	1,551,346	430,710
Accounts receivable	170,642	141,343
Due from SunCor-net (Notes 3, 4 and 5)	1,302,710	1,218,649
Prepays and other assets		4,664
Total current assets	3,024,698	1,795,366
DEFERRED DEBITS:		
Unamortized debt issue costs - net of amortization	214,492	
Deferred rate case expense - net of amortization	29,125	49,071
Other	3,243	
Total deferred debits	246,860	49,071
TOTAL	\$21,014,253	\$13,918,215

(Continued)

LITCHFIELD PARK SERVICE COMPANY  
(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)

BALANCE SHEETS  
DECEMBER 31, 1999 AND 1998

LIABILITIES	1999	1998
CAPITALIZATION:		
Common stock, \$10 par value - authorized, 500,000 shares; 7,820 shares issued and outstanding	\$ 78,200	\$ 78,200
Paid-in capital	10,797,022	10,797,022
Retained earnings	1,744,312	1,331,226
Total capitalization	12,619,534	12,206,448
CURRENT LIABILITIES:		
Accounts payable	229,989	155,709
Accrued liabilities	146,376	61,305
CAP obligation (Note 5)	1,175,527	887,081
Total current liabilities	1,551,892	1,104,095
LONG-TERM DEBT - Net (Note 7)	5,226,393	
COMMITMENTS AND CONTINGENCIES (Notes 5 and 6)		
DEFERRED CREDITS AND OTHER LONG-TERM LIABILITIES:		
Meter deposits	707,524	586,162
Deferred income taxes (Note 4)	123,910	21,510
Customer advances (Note 8)	785,000	
Total deferred credits and other long-term liabilities	1,616,434	607,672
TOTAL	\$21,014,253	\$13,918,215
See notes to financial statements.		(Concluded)

**LITCHFIELD PARK SERVICE COMPANY**  
**(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)**

**STATEMENTS OF INCOME**  
**YEARS ENDED DECEMBER 31, 1999 AND 1998**

	1999	1998
<b>UTILITY OPERATIONS:</b>		
Operating revenues:		
Water	\$1,404,957	\$1,122,188
Sewer	1,420,123	1,038,932
Miscellaneous income	28,332	
Total operating revenues	2,853,412	2,161,120
Cost of revenues:		
Water	270,139	204,651
Sewer	633,742	587,998
Total cost of goods sold	903,881	792,649
Gross margin	1,949,531	1,368,471
<b>OPERATING EXPENSES:</b>		
Depreciation and amortization	276,637	330,456
Outside services	351,024	365,820
Salaries and benefits	298,501	273,027
Other taxes	116,282	100,165
General and administrative	69,335	68,214
Rent (Note 6)	42,850	39,002
Income taxes (Note 4)	275,300	69,000
Total utility operating expenses	1,429,929	1,245,684
<b>NET UTILITY OPERATING INCOME</b>	<b>519,602</b>	<b>122,787</b>
<b>OTHER INCOME (EXPENSE):</b>		
Interest income	123,893	7,799
Other	366	(147)
Interest expense	(230,775)	(27,065)
Total other expense	(106,516)	(19,413)
<b>NET INCOME</b>	<b>\$ 413,086</b>	<b>\$ 103,374</b>
See notes to financial statements.		

LITCHFIELD PARK SERVICE COMPANY (A Wholly-Owned Subsidiary of  
SunCor Development Company, Inc.)

STATEMENTS OF STOCKHOLDERS' EQUITY  
YEARS ENDED DECEMBER 31, 1999 AND 1998

	Common Stock	Paid-in Capital	Retained Earnings	Total
BALANCE, JANUARY 1, 1998	\$ 78,200	\$ 6,762,239	\$1,227,852	\$ 8,068,291
Net income			103,374	103,374
Property contributed by SunCor		3,734,783		3,734,783
Forgiveness of notes payable by SunCor		300,000		300,000
BALANCE, DECEMBER 31, 1998	78,200	10,797,022	1,331,226	12,206,448
Net income			413,086	413,086
BALANCE, DECEMBER 31, 1999	\$ 78,200	\$10,797,022	\$1,744,312	\$12,619,534

See notes to financial statements.

**LITCHFIELD PARK SERVICE COMPANY**  
**(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)**  
**STATEMENTS OF CASH FLOWS**  
**YEARS ENDED DECEMBER 31, 1999 AND 1998**

	1999	1998
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income	\$ 413,086	\$ 103,374
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	267,268	330,456
Deferred income taxes	102,400	(13,121)
Change in assets and liabilities:		
Accounts receivable-net	(29,299)	(28,787)
Due from SunCor - net	(84,061)	(225,116)
Prepays and other assets	4,664	3,215
Deferred debits	(237,681)	(19,596)
Accounts payable	74,280	51,498
CAP obligation	288,446	298,162
Accrued liabilities	85,071	11,083
Meter deposits	121,362	106,374
Customer advances	785,000	
Net cash provided by operating activities	1,790,536	617,542
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Capital expenditures	(2,095,803)	(503,103)
Restricted cash	(3,800,490)	
Net cash used in investing activities	(5,896,293)	(503,103)
<b>CASH FLOWS FROM FINANCING ACTIVITIES -</b>		
IDA bond issuance	5,226,393	
<b>INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>1,120,636</b>	<b>114,439</b>
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR</b>	<b>430,710</b>	<b>316,271</b>
<b>CASH AND CASH EQUIVALENTS, END OF YEAR</b>	<b>\$1,551,346</b>	<b>\$ 430,710</b>
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION- Cash paid for interest</b>	<b>\$ 153,850</b>	<b>\$ 27,065</b>

See notes to financial statements.

**LITCHFIELD PARK SERVICE COMPANY**  
**(A Wholly-Owned Subsidiary of SunCor Development Company, Inc.)**

**NOTES TO FINANCIAL STATEMENTS**

**YEARS ENDED DECEMBER 31, 1999 AND 1998**

**1. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES**

*Basis of Presentation* - Litchfield Park Service Company (the "Company"), a wholly-owned subsidiary of SunCor Development Company, Inc. ("SunCor"), provides utility operations, water distribution and sewer services to the communities of Litchfield Park, Palm Valley and Pebble Creek in western Maricopa County, Arizona, which are regulated by the Arizona Corporation Commission ("Commission"). The utility operations are divided into two divisions, Water and Sewer. In accordance with an order of the Commission, the Company's accounting records are maintained in accordance with the uniform system of accounts prescribed by the National Association of Regulatory Utility Commissioners ("NARUC"). The accompanying financial statements reflect the rate-making policies of these commissions, and are prepared in accordance with Statement of Financial Accounting Standards ("SFAS") No. 71, *Accounting for the Effects of Certain Types of Regulation*. SFAS No. 71 requires a cost-based, rate-regulated enterprise to reflect the impact of regulatory decisions in its financial statements.

Significant accounting policies are summarized below:

- a. *Utility plant* is stated at cost with depreciation provided on a straight-line basis at annual rates generally approximating 2.62 percent for water and 2.52 percent for sewer as set by the Commission in May 1998. Prior to May 1998, the Commission established depreciation rates of 3 percent for water and 5 percent for sewer. Expenditures for maintenance and repairs are charged to expense. The cost of replacements and betterments is capitalized. Contributions in aid of construction are accounted for as a reduction to utility plant and are amortized over the estimated life of the plant.
- b. *Revenue Recognition and Cost of Revenues* - Water and sewer revenues are recognized at the time of billing to customers with the associated cost of water and sewer sold similarly recognized.
- c. *Cash and cash equivalents* include temporary cash investments.
- d. *Restricted cash* includes short-term investments that are to be used on capital projects prescribed by the IDA bond indenture agreement.
- e. *Income Taxes* - The Company accounts for income taxes using SFAS No. 109, *Accounting for Income Taxes*, which requires that the liability method be used in calculating deferred income taxes.

The provision for income taxes includes federal and state income taxes currently payable and deferred federal and state income taxes arising from temporary differences between income reported for financial statement purposes and income tax purposes.

The Company is included in the consolidated income tax returns of Pinnacle West Capital Corporation (Parent of SunCor). Income taxes are allocated to the Company based on its separate Company taxable income or loss.

- f. *Use of Estimates* - The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of income and expenses during the reporting period. Actual results could differ from those estimates.
- g. *Accounting Standards* - In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, which is effective for fiscal years beginning after June 15, 2000. SIAS No. 133 requires that entities recognize all derivatives as either assets or liabilities in the balance sheet and measure those instruments at fair value. The Company is currently evaluating the impact that this statement will have on its financial statements.

## 2. UTILITY PLANT

Utility plant at December 31 consists of the following:

		1999	1998
Utility plant -water	\$ 6,499,364	\$ 5,310,170	
Utility plant - sewer	9,134,899	8,446,112	
Other utility plant	870,539	916,643	
Total	16,504,802	14,672,925	
Contributions in aid of construction	(870,539)	(916,643)	
Accumulated depreciation and amortization	(1,962,842)	(1,719,292)	
Utility plant-net	\$13,671,421	\$12,036,990	

## 3. RELATED PARTY TRANSACTIONS

Amounts due to and from SunCor at December 31 are as follows:

		1999	1998
Due from SunCor:			
Income taxes (payable) receivable	\$ (85,552)	\$ 87,348	
Central Arizona Project ("CAP") subcontract reimbursement (Note 5)	1,434,932	1,146,486	
Due to SunCor - accounts payable representing reimbursements for expenses paid	(46,670)	(15,185)	
Due from SunCor - net	\$1,302,710	\$1,218,649	

#### 4. INCOME TAXES

The provision for income taxes for the years ended December 31 consists of the following:

	1999	1998
Current provision:		
Federal	\$147,000	\$ 69,800
State	25,900	12,300
Total current provision	172,900	82,100
Deferred provision	102,400	(13,100)
Total	\$ 275,300	\$ 69,000

A reconciliation of the provision for income taxes to the expected tax expense (computed by applying the federal statutory tax rate to income before income taxes) for the years ended December 31 is as follows:

	1999	1998
Computed expected tax expense	\$ 234,000	\$ 58,700
State income taxes, net of federal income tax benefit	41,300	10,300
Income tax expense	\$ 275,300	\$ 69,000

Deferred taxes consist primarily of accelerated tax depreciation and amortization of deferred debits.

#### 5. COMMITMENTS AND CONTINGENCIES

The Company has entered into an agreement for up to 30 years for the long-term availability of 5,580 acre feet annually of CAP water. Under the agreement, the Company's outstanding obligation totaled \$1,175,527 and \$887,081 in 1999 and 1998, respectively, and will increase in various increments during the remaining term of the agreement. Over the next five years, the fixed portions will be \$301,320 annually for 2000 through 2004, while the variable portions would be \$70 per acre foot for 2000, \$72 for 2001, \$73 for 2002 and \$75 for 2003. To date, \$259,405 of fixed fees have been paid.

The obligation to CAP is currently due. To the extent that CAP requires payment, the Company's parent (SunCor) intends to fund the obligation in its entirety (Note 3). The Company and its parent are currently evaluating the eventual use of this right, including exchange or sale.

#### 6. RENT EXPENSE AND FUTURE MINIMUM LEASE OBLIGATIONS

The Company leases its office space and equipment under noncancelable leases. Future minimum lease payments for the years ending December 31 total \$88,717, payable as follows: 2000, \$48,559; 2001, \$27,459; and thereafter, \$12,699. Total rent expense for 1999 and 1998 was \$42,850 and \$39,002,

## 7. LONG-TERM DEBT

In April 1999, the Company issued \$5,335,000 in Industrial Development Authority ("IDA") Bonds. The net book value of the debt is reduced by the discount upon issuance of \$108,607. These bonds accrue interest at a blended rate of 5.87 percent semiannually. Semi-annual payments are due in April and October of each year. These bonds mature at various dates from October 2001 through October 2023. Principal amounts due over the next five years are as follows: \$0 in 2000, \$120,000 in 2001, \$125,000 in 2002, \$135,000 in 2003 and \$140,000 in 2004, and \$4,815,000 thereafter. The IDA bond indenture agreement contains certain covenants, as prescribed in Section 5.12 of the IDA Loan Agreement, and restrictions. These funds are primarily restricted for use on capital projects. The Company has calculated all applicable covenants and has concluded that all covenants have been satisfied as of December 31, 1999.

## 8. CUSTOMER ADVANCES

In October 1999, the Company entered into an agreement with a developer whereby \$785,000 of funds were advanced to the Company to be utilized for the construction of a sewer treatment facility for a development.

**MODULE 54**

	Phase I 4.1 MGD	Phase II 8.2 MGD
<b>1. Headworks/Lift Station:</b>	<b>\$1,235,200</b>	<b>\$385,000</b>
a. Wetwell Structure		
b. Pumping		
c. Prescreen (Rotating Screen)		
d. Grit Removal (Vortex)		
e. Equipment Installation/Piping		
<b>2. SBR Treatment Cells:</b>	<b>\$2,883,200</b>	<b>\$2,783,200</b>
a. SBR Tank Structure		
b. SBR Jet Pumps		
c. SBR Manifold		
d. Blowers		
e. WAS Pumps		
f. Decanter and Vent Valve		
g. SBR Controls/Software		
h. Equipment Installation/Piping		
<b>3. Disinfection + Filtration:</b>	<b>\$1,430,200</b>	<b>\$1,235,000</b>
a. Structure		
b. Disinfection (O3 w/ Cl2 Back-up)		
c. Filtration		
d. Discharge Pumping Station		
e. Effluent Storage (not included)		
f. Piping/Installation		
<b>4. Sludge Digesters/Storage:</b>	<b>\$1,436,600</b>	<b>\$200,000</b>
a. Structure		
b. Mixing Pump		
c. Aeration Blowers		
d. Sludge Manifold		
e. Sludge Disposal Pump (for sludge discharge)		
f. Supernatant Return Pump (for sludge digester)		
g. Sludge Processing/Drying		
h. Piping/Installation		
<b>5. Other Work:</b>	<b>\$1,950,100</b>	<b>\$433,400</b>
a. Excavation + Backfill		
b. Office/Lab		
c. Filter/Sludge Digester/Shop/Equipment Buildings		
d. Paving/Landscape/Fencing		
e. Lab Equipment		
f. Back-up Power Supply		
g. Chemical Phosphorus Removal (Not Included)		
<b>6. Engineering</b>	<b>\$1,286,900</b>	<b>\$705,100</b>
a. Civil Design		
b. Electrical Design		
c. Permits (NPDES)		
d. 6 Month Training and Operations Contract		

<b>SUB TOTAL</b>	<b>\$10,222,200</b>	<b>\$5,741,600</b>
------------------	---------------------	--------------------

<b>7. Construction</b>	<b>\$2,303,500</b>	<b>\$906,500</b>
a. Eng. Services During Construction		
b. General Conditions		
c. Construction Management		
d. Construction Contingency		
e. Bond and Taxes		

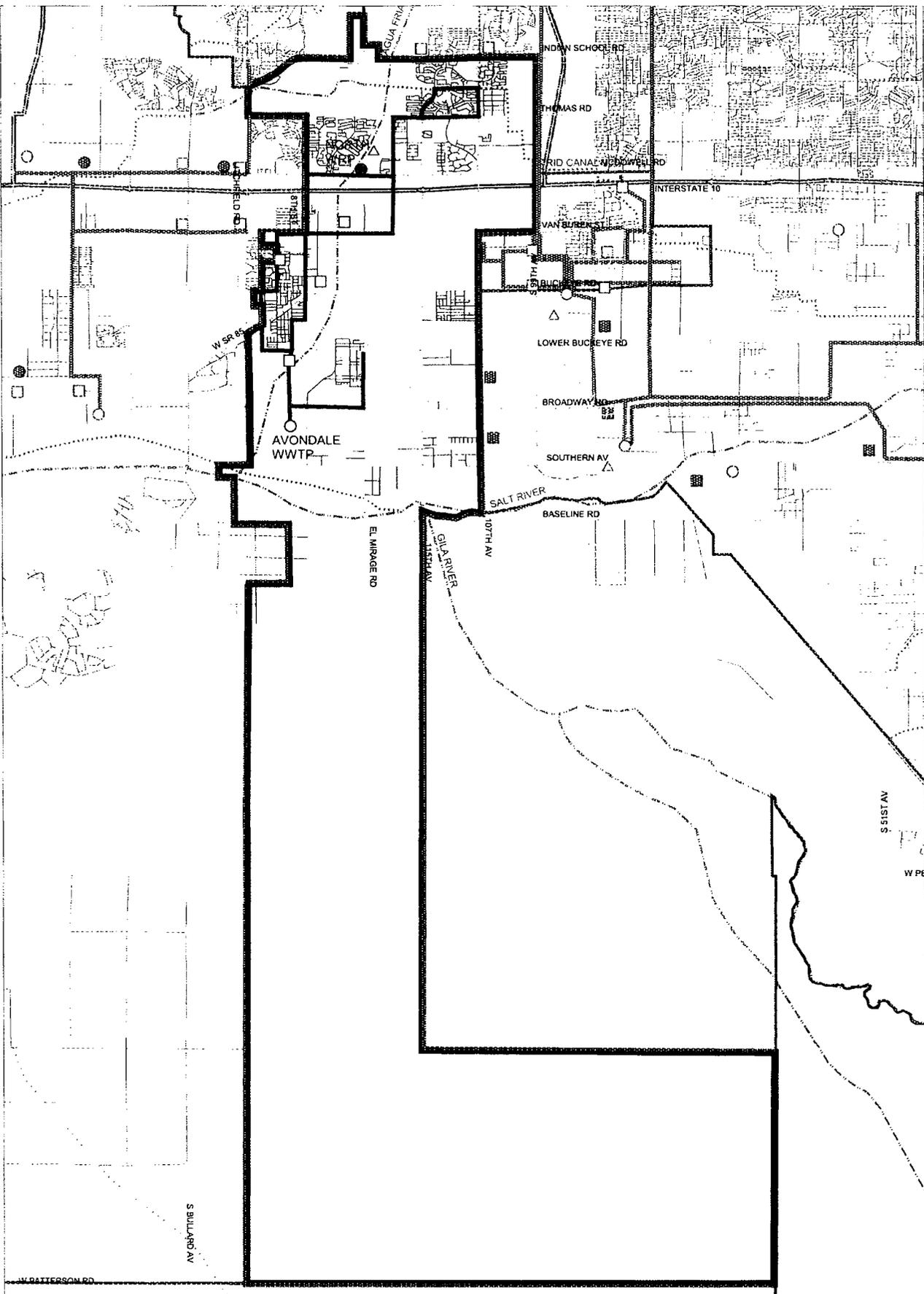
<b>TOTAL COST PER PHASE</b>	<b>\$12,525,700</b>	<b>\$6,648,100</b>
<b>COST PER GALLON</b>	<b>\$3.06</b>	<b>\$1.62</b>
<b>TOTAL COST</b>		<b>\$19,173,800</b>
<b>TOTAL COST per GALLON</b>		<b>\$2.34</b>

**OPINION OF PROBABLE COST OF OPERATION AND MAINTENANCE****GALLONS TREATED PER DAY**

	<u>500,000</u> (12.5 % CAP)	<u>1,000,000</u> (25 % CAP)	<u>2,000,000</u> (50 % CAP)	<u>3,000,000</u> (75 % CAP)	<u>4,000,000</u> (100 % CAP)
<b><u>POWER</u></b>					
Assumes 1 HP = .9 kWh and \$0.075 / kWh					
<b><u>PROCESS</u></b>					
(2) 175 HP BLOWER @ 8 HOURS / DAY	\$95	\$95	\$95	\$189	\$189
(8) 50 HP MIXING PUMPS @ 12 HRS / DAY	\$162	\$162	\$162	\$324	\$324
(2) 100 HP EFFLUENT PUMP @ 6 HRS / DAY	\$10	\$20	\$41	\$61	\$81
(2) 40 HP INFLUENT PUMPS @ 12 HRS / DAY	\$32	\$32	\$32	\$65	\$65
(2) 50 HP SLUDGE MIXER @ 12 HRS / DAY	\$10	\$20	\$41	\$61	\$81
(2) 30 HP OZONE UNITS @ 12 HRS / DAY	\$6	\$12	\$24	\$36	\$49
(2) 75 HP SLUDGE BLOWER @ 8 HRS / DAY	\$21	\$31	\$41	\$61	\$81
<b>TOTAL PROCESS POWER COST PER DAY</b>	<b>\$336</b>	<b>\$372</b>	<b>\$436</b>	<b>\$797</b>	<b>\$870</b>
<b><u>MISCELLANEOUS</u></b>					
HVAC 20 TON UNITS @ 8 HRS / DAY	\$42	\$42	\$42	\$42	\$42
(1) LS SITE LIGHTING 10kW @ 12 HRS / DAY	\$9	\$9	\$9	\$9	\$9
(1) LS SITE POWER 30kW @ 24 HRS / DAY	\$54	\$54	\$54	\$54	\$54
<b>TOTAL MISCELLANEOUS COST PER DAY</b>	<b>\$105</b>	<b>\$105</b>	<b>\$105</b>	<b>\$105</b>	<b>\$105</b>
<b><u>PLANT OPERATIONS</u></b>					
<b><u>OPERATIONAL STAFF</u></b>					
(1) STATE CERTIFIED WWTP OPERATOR 40 HRS / WEEK @ \$35/HR (Incl. Benefits)	\$200	\$200	\$200	\$200	\$200
(1) JUNIOR OPERATOR 40 HRS / WEEK @ \$25/HR (Incl. Benefits)	\$143	\$143	\$143	\$143	\$143
(1) GENERAL MAINTENANCE 20 HRS / WEEK @ \$15/HR	\$43	\$43	\$43	\$43	\$43
<b>TOTAL STAFF COST PER DAY</b>	<b>\$386</b>	<b>\$386</b>	<b>\$386</b>	<b>\$386</b>	<b>\$386</b>
<b><u>SLUDGE DE-WATERING AND DISPOSAL</u></b>					
Assumes \$0.15 / 1000 gallons of treated effluent (On-site Processing)					
	\$75	\$150	\$300	\$450	\$600
<b><u>EQUIPMENT</u></b>					
SPARE PARTS / REPAIRS (ALLOWANCE @ \$150,000 / YR)	\$171	\$251	\$331	\$411	\$411
<b><u>OTHER</u></b>					
OPERATING PERMIT IN ARIZONA (\$2,100 / YR)	\$6	\$6	\$6	\$6	\$6
LAB CERTIFICATION PERMIT (\$1,200 / YR)	\$3	\$3	\$3	\$3	\$3
TELEPHONE SERVICE @ \$80 / MONTH	\$2	\$2	\$2	\$2	\$2
POT. WATER SERVICE @ \$100 / MONTH	\$3	\$3	\$3	\$3	\$3
<b>TOTAL OTHER COSTS PER DAY</b>	<b>\$14</b>	<b>\$14</b>	<b>\$14</b>	<b>\$14</b>	<b>\$14</b>
<b><u>LAB TESTS</u></b>					
DAILY EFFLUENT TESTING - ON SITE (BY JUNIOR OPERATOR ABOVE) (BOD, TSS, COLIFORM, TURBIDITY, NO3, NO2, TKN, TP, COD)	\$0	\$0	\$0	\$0	\$0
DAILY INFLUENT TESTING - ON SITE (BY JUNIOR OPERATOR ABOVE) (BOD, TSS, TOTAL NITROGEN, COD, MLSS)	\$0	\$0	\$0	\$0	\$0
LAB EQUIP. / CHEMICALS (ALLOWANCE @ \$45,000 / YR)	\$75	\$75	\$75	\$125	\$125
HAZARDOUS WASTE - 1 EVERY 3 MONTHS @ \$500 EACH	\$6	\$6	\$6	\$6	\$6
<b>TOTAL LAB COSTS PER DAY</b>	<b>\$81</b>	<b>\$81</b>	<b>\$81</b>	<b>\$131</b>	<b>\$131</b>
<b>TOTAL OPERATIONS COSTS PER DAY</b>	<b>\$1,168</b>	<b>\$1,359</b>	<b>\$1,653</b>	<b>\$2,294</b>	<b>\$2,517</b>
<b>COST PER ACRE-FOOT OF TREATED WATER</b>	<b>\$761</b>	<b>\$443</b>	<b>\$269</b>	<b>\$249</b>	<b>\$205</b>
<b>COST PER 1000 GALLONS OF TREATED WATER</b>	<b>\$2.34</b>	<b>\$1.36</b>	<b>\$0.83</b>	<b>\$0.76</b>	<b>\$0.63</b>

**APPENDIX B – MAG 208 Water Quality Management Plan, October 2002**

The maps in this appendix were copied from the October 2002 MAG 208 Plan and show the planning areas for the municipalities in the LPSCo service area.



**Avondale Municipal Planning Area**

03/22/02  
FIGURE 4.2

**LEGEND:**

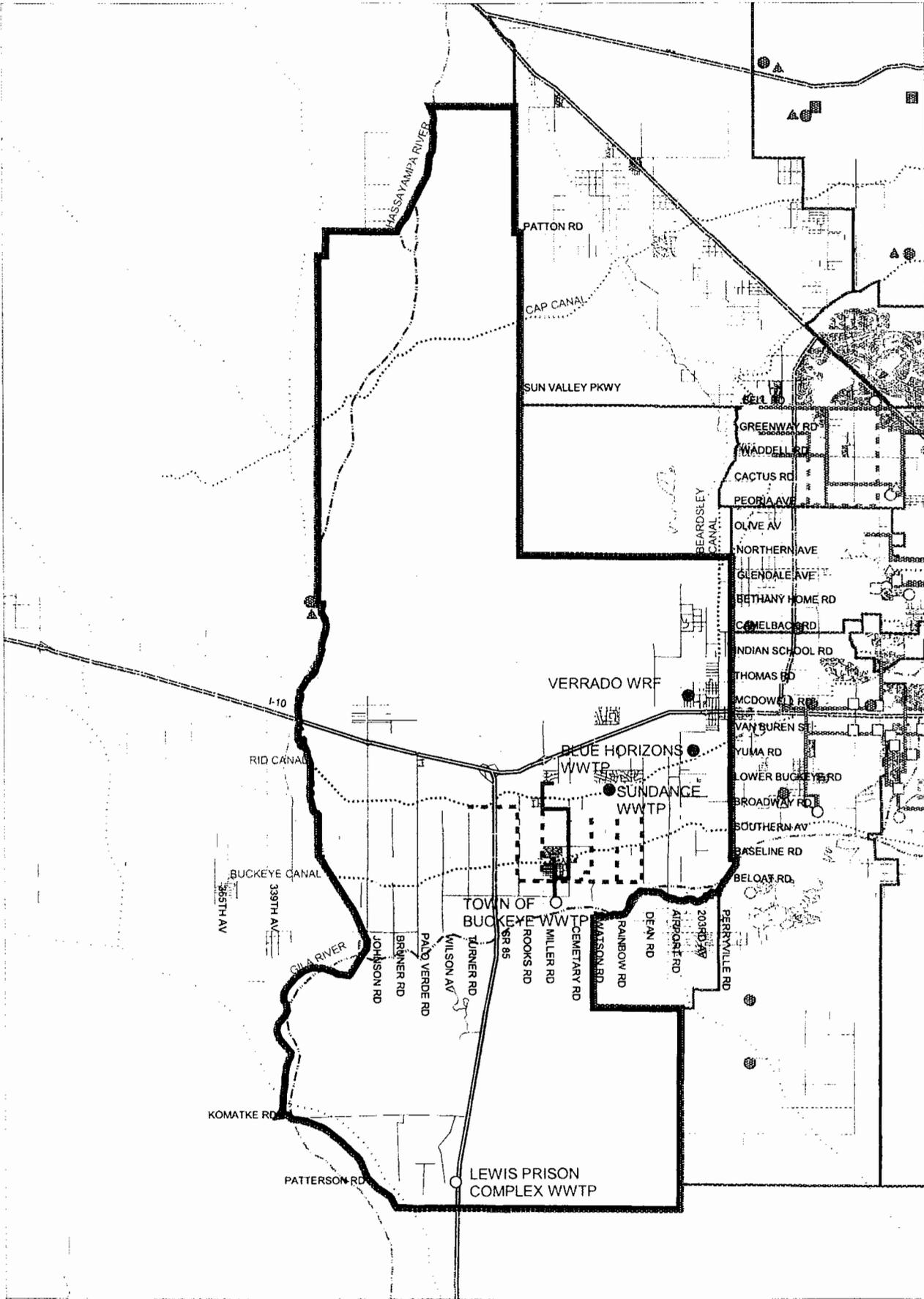
- Planning Area Boundary
- Existing Interceptor
- Future Interceptor
- Existing Lift Station
- Future Lift Station
- Existing Treatment Facility
- Future Treatment Facility
- Existing Reuse/Recharge
- Future Reuse/Recharge

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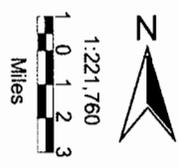
**Maricopa Association of Governments**  
208 Water Quality Management Plan  
2002

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**LEGEND:**

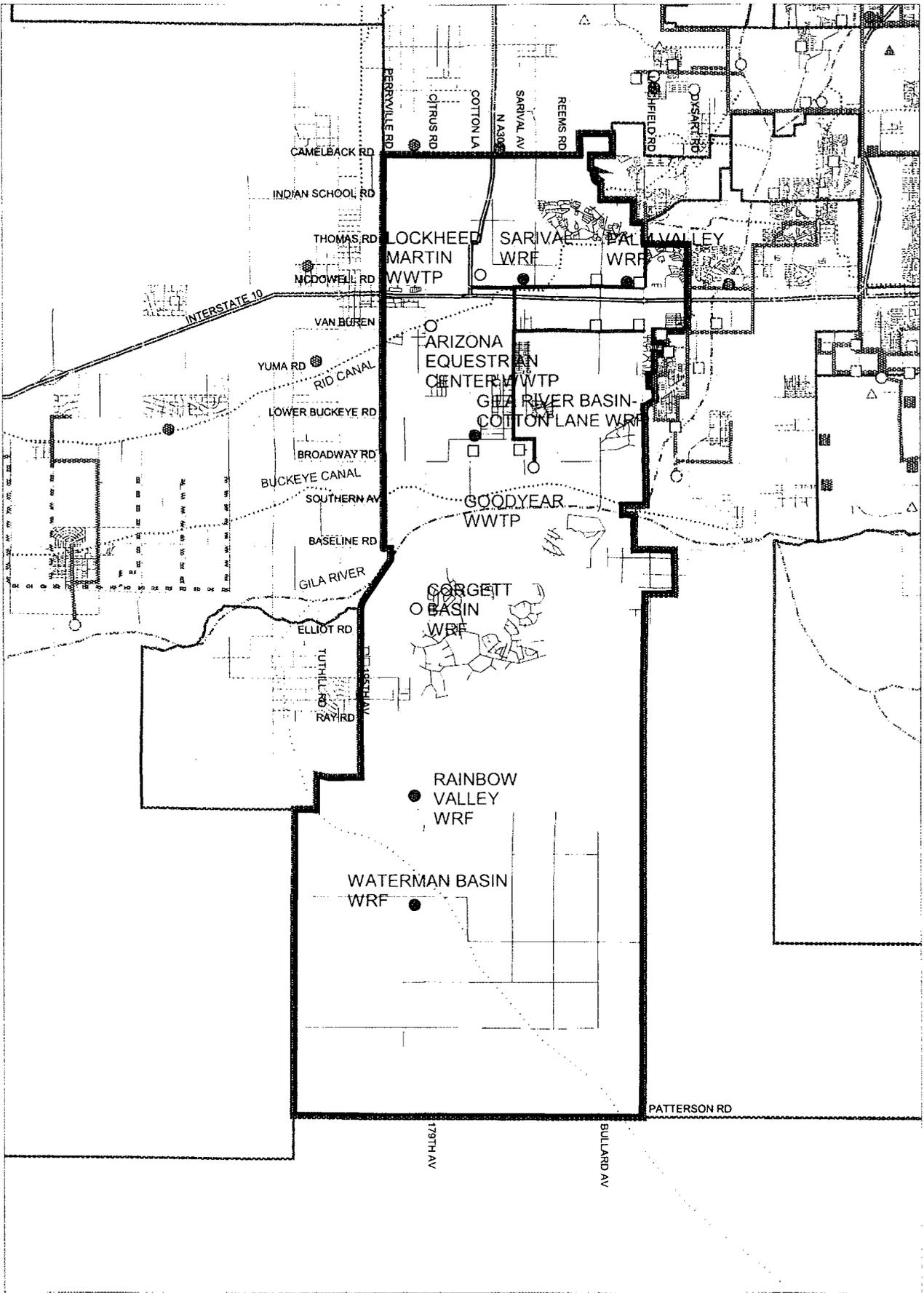
- Planning Area Boundary
- Existing Interceptor
- Future Interceptor
- Existing Lift Station
- Future Lift Station
- Existing Treatment Facility
- Future Treatment Facility
- Existing Reuse/Recharge
- Future Reuse/Recharge



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 208 Water Quality Management Plan  
 2002



Buckeye Municipal Planning Area  
 03/22/02  
 FIGURE 4.3



**Goodyear Municipal Planning Area**

03/22/02  
FIGURE 4.4

**LEGEND:**

- Planning Area Boundary
- Existing Interceptor
- Future Interceptor
- Existing Lift Station
- Future Lift Station
- Existing Treatment Facility
- Future Treatment Facility
- Existing Reuse/Recharge
- Future Reuse/Recharge

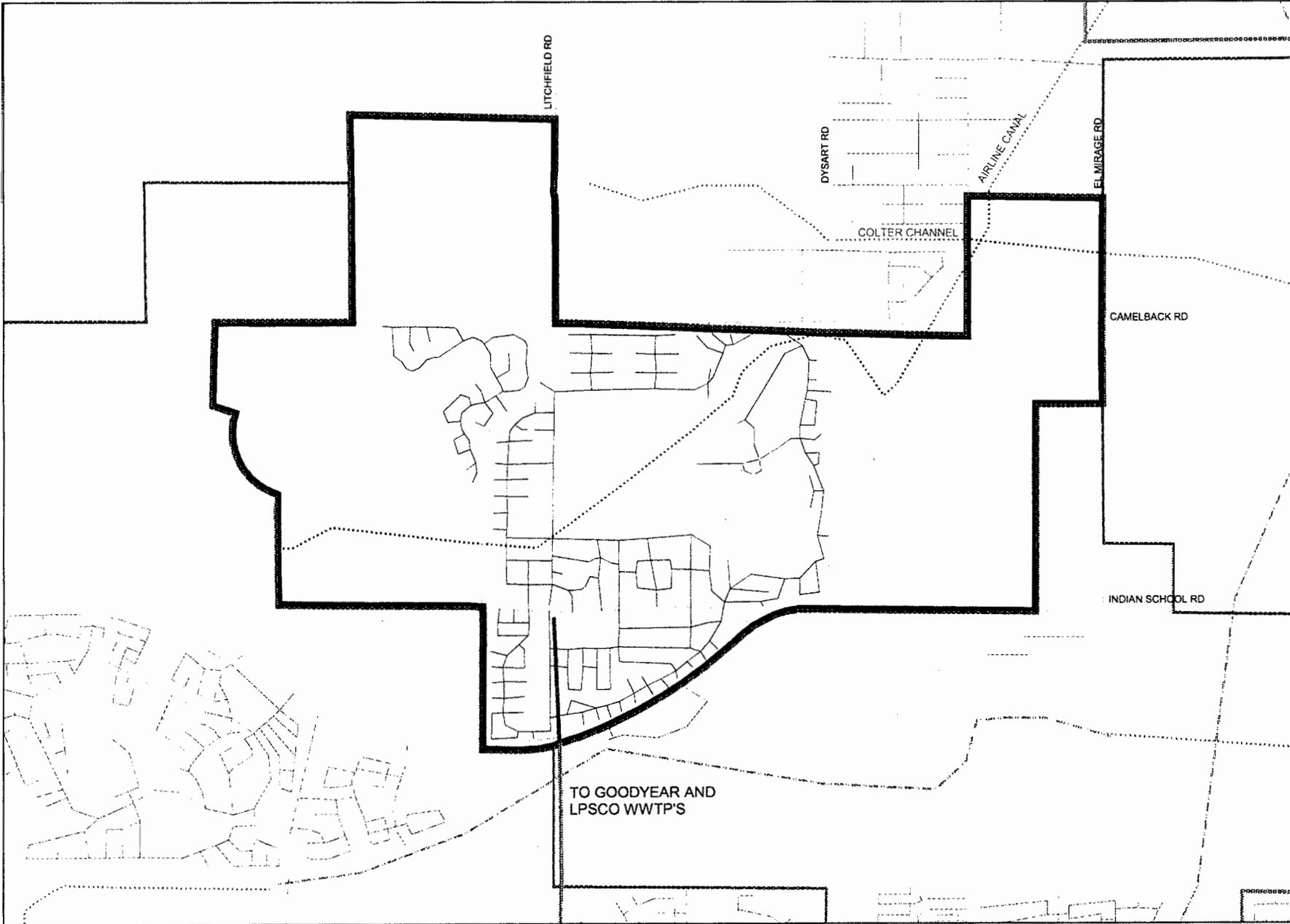
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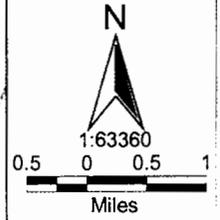
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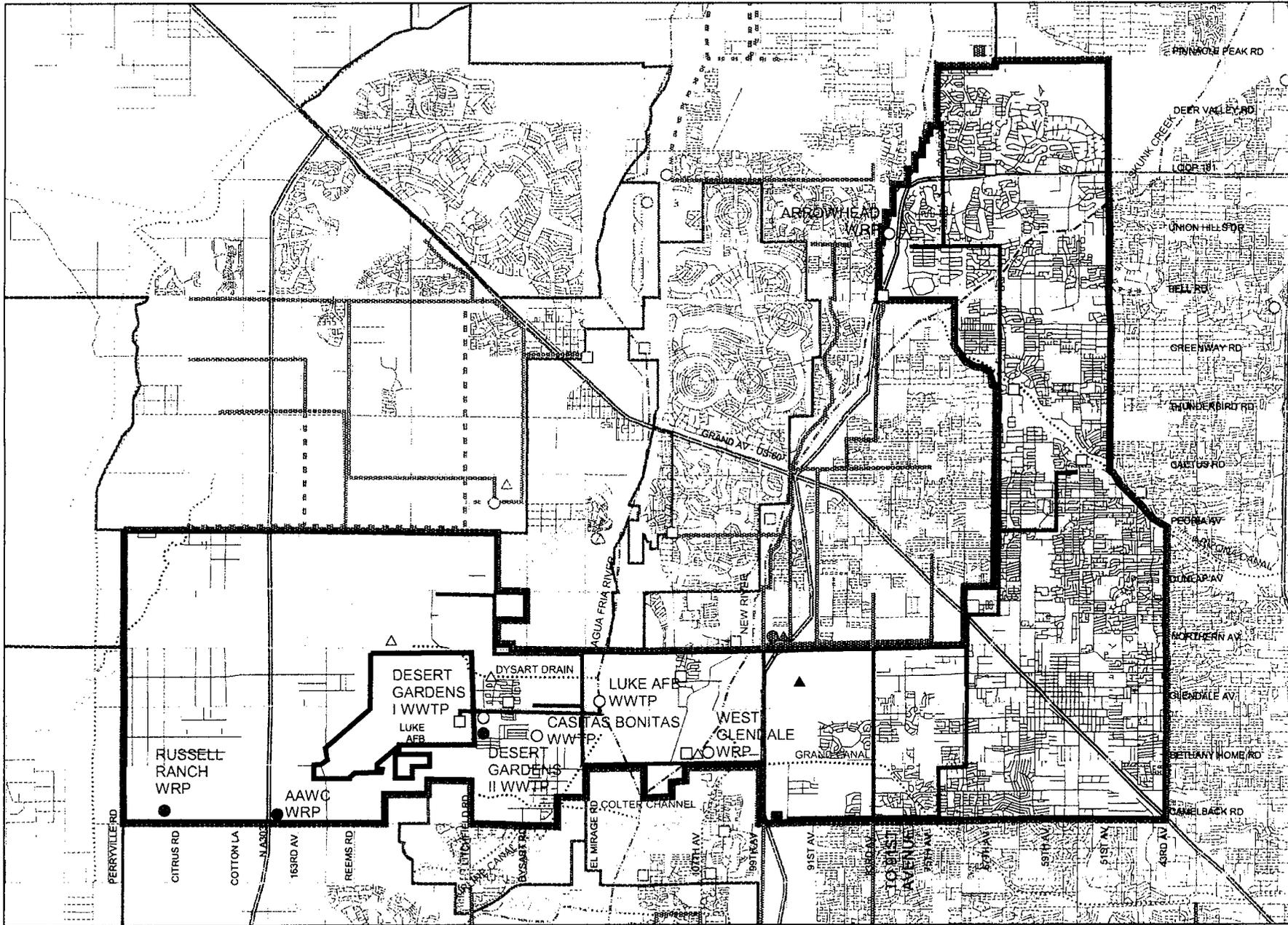
Maricopa Association of Governments  
 2008 Water Quality Management Plan  
 2002



- LEGEND:**
- Planning Area Boundary
  - Existing Interceptor
  - Future Interceptor
  - Existing Lift Station
  - Future Lift Station
  - Existing Treatment Facility
  - Future Treatment Facility
  - Existing Reuse/Recharge
  - Future Reuse/Recharge
  - Litchfield Park
  - Municipal Planning Area

TO GOODYEAR AND  
 LPSCO WWTP'S

FIGURE 4.5



Maricopa Association of Governments  
 208 Water Quality Management Plan  
 2002



- LEGEND:**
- Planning Area Boundary
  - Existing Interceptor
  - Future Interceptor
  - Existing Lift Station
  - Future Lift Station
  - Existing Treatment Facility
  - Future Treatment Facility
  - Existing Reuse/Recharge
  - Future Reuse/Recharge

**Glendale Municipal  
 Planning Area**

03/22/02  
 FIGURE 4.8

## **APPENDIX C – White Tank Mountain Regional Sewer Solution**

This appendix contains the conceptual plan completed in July 2004 by United Engineering Group for LPSCo. This plan forms the basis for the design of the Regional Sanitary Sewer.

White Tank Mountain Regional  
Sewer Solution  
Conceptual Plan

Litchfield Park Service Company  
Maricopa County, Arizona

Project #:	042027
Subfolder:	RE
Date:	7-14-04

July 14, 2004

*Prepared By:*

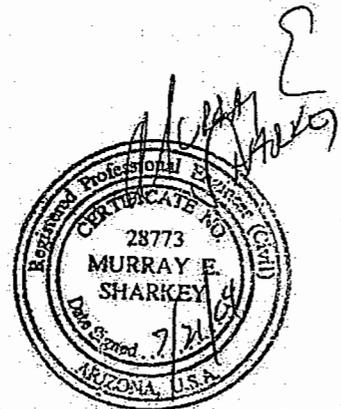
**united engineering group**  
4505 E. Chandler Blvd., Suite 270  
Phoenix, AZ 85048  
Phone: 480.705.5372  
Fax: 480.705.5376

# White Tank Mountain Regional Sewer Solution Conceptual Plan

*Prepared For:*  
Litchfield Park Service Company

*By:*  
United Engineering Group

July 14, 2004



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## Tables & Exhibits

Exhibit A: Service Area & Study Group Map

Table 1: Study Group Summary

## Abbreviations & Terminology

gpd –	Gallons Per Day
MGD –	Million-Gallons Per Day (1,000,000 gpd)
gpm –	Gallons Per Minute
EDU –	Equivalent Density Unit – Equal to the design discharge of one detached single family residential dwelling unit (320 gpd) 3.2 people @ 100 gpd (Avg.)
AAC Title 18 –	Arizona Administrative Code Title 18. The document containing the rules and regulations governing wastewater collection and treatment in the State of Arizona.
Average Discharge –	Anticipated mean outflow over a 24-hour period
Peak Discharge –	Anticipated flow rate for the system at peak usage times. Arizona Administrative Code Title 18 was used to determine the peaking factor for each portion of the system. Peak Discharge is equal to the Average Discharge multiplied by the peaking factor.
LPSCO –	Litchfield Park Service Company
Lift Station (L.S.) –	Refers to the lift station at McDowell Road and Sarival Avenue used to pump wastewater from this point to the existing wastewater treatment facility near McDowell Road and Sarival Avenue.
PVWRF –	Palm Valley Water Reclamation Facility (Existing facility located north of McDowell Road between Bullard Avenue and Litchfield Road).
SWRF –	Sarival Water Reclamation Facility (Proposed facility located near the intersection of McDowell Road and Sarival Avenue).

## Executive Summary

The following summarizes the results of a study completed for Litchfield Park Service Company (LPSCO) by United Engineering Group. The study shows that LPSCO can provide a feasible solution for providing wastewater treatment and transmission for the properties included in the study. This report serves to address the technical and engineering aspects of the project, whereas the previous developer-funded study completed on February 9, 2004 attempted to address the financial feasibility aspects. The study boundaries have been modified for this report and now include a smaller land area. However, the possibility exists to create a second regional study that includes the remaining areas included in the original study. The area was split due to concerns regarding the development schedules of each area; the area removed from the original study is expected to develop much later than the properties in this study. The cost structure agreed upon by the private parties involved still holds true to the previous study, while the technical aspects of the study have been adjusted. This report serves as the final outcome of the engineering study.

Due to the nature of regional planning, this study has been based on current site plans rather than existing area master plans which fail to address specific site needs. This study only seeks to show (based on existing site plans, preliminary plats and final plats) that the proposed wastewater solution will have the capability to serve all properties that would connect to the system either now or in the near future. These site plans and plats conform to the land use planning and zoning but can vary slightly from it. Since information is available regarding proposed subdivisions for subdivisions and existing properties, it is the intent of this study to show that the proposed development will be adequately served by the proposed sewer system and facilities. These systems and facilities are either in-service or planned by LPSCO. Available planned development in the area shows densities that are in conformance with, or slightly higher than, the densities being allowed by the regional plans. These plans used in this report are therefore a worse-case-scenario when compared to the densities proposed by the regional development plans.

Sewer sizes have been determined by the available density information mentioned above. Layout has been determined by both geography and need. An existing lift station at McDowell Road and Sarival Avenue will collect the outfall and pump it approximately two miles east to the existing treatment plant. Plans exist to construct new facilities once capacity meets certain triggers. Triggers for plant expansion and construction are discussed in more detail within the report.

The entire system in the study includes capacity for 9 separate properties with a proposed total of 12,288 single-family residential homes, 526 acres of commercial and industrial property and four school sites. Total flow for the system is 5.284 MGD or 3,670 gpm. A population-based peaking factor of 1.62 was utilized for this entire flow, generating a peak flow of 8.551 MGD or 5,938 gpm.

The proposed system falls within four designated 208 regional planning areas. LPSCO will be seeking approval to amend the three municipal 208 plans, permitting LPSCO to serve the area. Additional capacity has been provided for the Arizona-American Water Company 208 planning area to be absorbed into the LPSCO system, should this be deemed desirable. Amended 208 plans will improve the existing planning and allow service sooner and more economically than can be accomplished through the current plans. Because capacity is currently available, the end user will be able to begin utilizing the system immediately upon the construction of infrastructure connecting the user to the facility. Additionally, with permitting in place for additional capacity, there will be no lapse in service while additional treatment facilities are being approved and constructed. The treatment system can be completed in phases and scaled appropriately, thus offering the most economical price for each individual development through cost sharing measures. The collection system will, however, be completed in a single phase.

This proposed wastewater development plan provides a regional solution that anticipates support by the local municipalities, the Arizona Corporation Commission, Maricopa County Environmental Services. The proposed regional plan is beneficial to the environment. It eliminates the need for future septic systems or subdivision package plants and processes generated wastewater at a state-of-the-art facility. The conveyance capacity allows for the future contribution from intermediate properties.

# 1.0 Introduction

The following document serves as a master plan study for the proposed sewer system connecting several properties in the area directly east of the White Tank Mountains to the existing Litchfield Park Service Company sewer system. The service area for this project is shown in Exhibit A. Within the areas displayed there are several locations with existing septic systems, areas with existing wastewater master plans and the local state prison complex serviced by the City of Goodyear. All of these properties listed will neither require nor request connection to the system.

## 1.1 Existing Condition

This study includes the area of approximately 7.25 square miles bordered roughly by Cactus Road to the north, Indian School Road to the south, Tuthill Road to the west and Cotton Lane to the east. This is a fast growing area with significant demand for housing. Historically, development has not been able to move forward because there has been no wastewater solution for the area. Much of the problem stems from the inability of potential providers to obtain permits to build new facilities. The solution proposed in this report accomplishes this by bringing influent to an existing wastewater system which currently has unused capacity. Additional permitting is available to further expand the capacity of the system within the service area.

## 1.2 Proposed Development

The study will include several proposed developments that will jointly fund and have common interest in the solution. By working together, more accurate results have been attained. Additionally, quantities of scale will benefit all of those involved at the time of construction. A list of currently involved developers has been included in Section 3.0 of this report and in Table 1.

## 1.3 Solution Alternatives

Several alternatives have been considered by the developers involved, but for all of those involved, this opportunity offers the quickest cost effective solution while continuing to provide the desirable end result, a regional solution. Alternatives range from septic systems on 1 acre lots to individual package treatment facilities, to the construction of a new regional facility under the ownership of Arizona-American Water Company. However this proposed wastewater plan minimizes cost and complexity while offering service in the most timely and beneficial manner.

## 1.4 Legal Obligations

The service area of this regional study falls within three different 208 regional planning areas. This means that three jurisdictions will individually amend planning areas to allow wastewater to be transferred to the LPSCO system. While the jurisdictions appear to be cooperating, the possibility remains that opposition could result due to this issue. LPSCO will make these amendments at the time this plan is approved and legally binding agreements have been made with the properties involved. This report shows that legal obligations notwithstanding, the proposed sewer solution is feasible.

## 2.0 Design Criteria

The requirements and design minimums for this system have been set by the Litchfield Park Service Company. Where specific requirements were not available, the Arizona Administrative Code (AAC) Title 18 was utilized. A population of 3.2 persons per dwelling unit was used based on similar figures used by other local municipalities and providers. This exceeds the average of 2.67 persons per household in Maricopa County based on 2000 US Census data. The following is a summary of the major requirements used:

### Flow Rates:

Peaking Factor:	Per Arizona Administrative Code (See Table 2)
Residential:	100 gallons/person/day 3.2 persons/household
Commercial:	2000 gallons/acre/day
Schools:	75 gallons/student/day

### Pipe:

Minimum pipe sizing:	8 inch for 120 acres or less 10 inch for 120 to 250 acres 12 inch for 250 to 640 acres 15 inch for all larger areas
Minimum Slope:	8" 0.0033 ft/ft 10" 0.0024 ft/ft 12" 0.0019 ft/ft 15" 0.0014 ft/ft 18" 0.0011 ft/ft 21" 0.00092 ft/ft 24" 0.00077 ft/ft

### Full Flow Velocity:

Minimum:	2.0 ft/sec
Maximum:	9.0 ft/sec

### Manholes:

Size:	4 foot for 8 inch to 12 inch sewer-lines 5 foot for 15 inch and larger sewer-lines
Spacing:	Every 500' for 8 inch to less than 18" sewer-lines Every 600' for 18 inch to less than 36" sewer-lines

### 3.0 Design

Study participants provided the most current demand information available for the purposes of this study. However, some ambiguity remains as to the exact lot count that will be included in the final design. Two areas in particular have been included as part of the study that may not utilize the system. It was decided, for the sake of completeness, that these areas be included; the potential flows from these properties are included in the pipe design. The first of these areas is Russell Ranch Phases 1-5. This area is currently in the Arizona-American Water Company 208 planning area and has an on-site treatment facility which is in partial operation. It may prove to be economically viable to directly discharge into the system proposed in this report, and the property has thus been included should this be the case. The second piece is that portion of Zanjero Trails between Cactus Road and Peoria Avenue. This portion was given the option of discharging into the City of Surprise wastewater system. Again, because multiple possible sewer solutions exist, the conservative approach of including these flows into the capacity design, was taken.

The table below provides a list of contributions to each of the nodes shown in Exhibit A provided at the end of this report. Table 1, also provided at the end of this report, sums the result to provide line sizing based on the design criteria provided in Section 2 of this report.

Contributions to the system are calculated based on dwelling unit counts, commercial/industrial acreage, and school population counts. For the sake of comparison, EDUs (Equivalent Dwelling Units) can be utilized. One EDU is the equivalent discharge of one single family home per day, or 320 gallons per day. For comparisons sake, one acre of commercial property generates 6.25 EDU of discharge and each 1000 student school site generates approximately 234 EDU of discharge. Similarly, equivalent population is calculated by dividing the discharge in gallons per day by 100. Therefore, for the purposes of calculating the peaking factor, there is a population of 3.2 per EDU, 20 per acre of commercial, and 750 per 1000 student school site.

The following is a summarized list of the developments included in the Study Group (See Table 1 for a summative list which is used to determine line sizing); A manhole has been assigned to each property (or portion thereof) and appears next to that property. The manhole shows the approximate location of discharge. This table is shown on the following page:

#	Development Name	MH	Residential Units (DU)	Com./Ind. Acreage	School Site (Students)
1	Maracay Homes	1	859	5	
2	Jackrabbit Estates	1	364		
3	Moseley	1	200	24	
4	Zanjero Trails	2	8,231	72	3,000
5	Savannah	3	319		
6	Russell Ranch Phase 6	3	110	10	
7	Russell Ranch Phases 1-5	4	425	5	
8	Badley Center	4		20	
9	Hancock Communities	4	1,280	20	1,000
10	Beazer Homes/Abel Property	5	500	370	
<b>TOTALS:</b>			<b>12,288</b>	<b>526</b>	<b>4,000</b>

## 4.0 Existing Facilities

Litchfield Park Service Company (LPSCO) currently provides sewer existing service to the portions of the City of Goodyear, Litchfield Park and unincorporated areas of Maricopa County. The LPSCO service area is predominately made up of master planned communities such as Palm Valley, Pebble Creek and Litchfield Greens communities. The Palm Valley Water Reclamation Facility (PVWRF) located at 14222 W. McDowell Road was constructed and placed into service in February 2001. LPSCO is currently preparing an Aquifer Protection Permit amendment for the expansion of PVWRF from 4.1 to 8.2 MGD. The estimated 1,423 planned residential units of the Palm Valley Phase-V development will produce an average daily sewage flow of 513,360 gallons per day (based on 320 gallons per day per dwelling unit). Utilizing a peaking factor of 2.02 derived from the Harmon equation, the peak day flow for this development is estimated to be 1,036,987 gallons per day. This facility was designed to serve all residential and commercial development from the McDowell Road to the south, Camelback Road to the north from Bullard to the west, and Dysart Road to the east. This facility will provide service to the new area.

The Sarival Lift Station is to provide interim pumping capacity to the PVWRF from the northwest service area until such time that flows increased to a level that would support startup and continuous operation of a 4.2- million gallon per day (MGD) Sarival Water Reclamation Facility (SWRF). The initial design and 1<sup>st</sup> phase construction of the Sarival Lift Station is designed to provide the following pumping capacity:

- Average Daily Flow - 2.0 MGD
- Peak Day Flow - 4.2 MGD
- Peak Hour Flow - 6.5 MGD

The facility construction includes the following features:

- One 30,000 gallon sub-grade concrete wet well
- Three (3) - 1500 GPM submersible raw sewage pumps and ancillary control equipment
- One (1) - 125 KVA – Standby Power Generator
- One (1) – Wet Oxidation Odor Control Scrubber
- One (1) – 24-inch bypass sewer to the City of Goodyear
- One (1) - 36- inch RCP inlet piping.
- One (1) – 16-inch DI discharge piping (to PVWRF)

The initial construction phase of the Sarival Lift station will provide sewer service for up to 6,250 residential units by diverting up to 2.0 MGD average daily flow to the PVWRF through a newly constructed 16-inch ductile iron force main. Once the trigger flow rate of 1.2 MGD is reached at this facility, construction will begin on the first phase (4.1 MGD) SWRF.

Further details on the proposed treatment facilities are included in Section 5 of this report.

## 5.0 Proposed Facilities

Exhibit A shows the proposed system layouts for the proposed collection system. The proposed system is discussed in more detail below.

### 5.1 Collection System

Pipe layout was determined based on the geographic situation in the area, with slopes heading predominantly southeast. The chosen layout was based on the goal of serving the most properties possible using the most optimized route for the sewer-line.

The construction of this sewer system should encounter few unique situations which will require special treatment. There are, however, two unique situations that should be noted. These include a crossing under the Beardsley Canal at Camelback Road and a possible crossing within the loop 303 corridor. Sufficient slope exists at both locations to provide flexibility in the depth of the sewer system. Additional costs and contingency have been allocated to provide for the additional expenses incurred by lowering the sewer and boring beneath the canal or road deck.

Numerous scenarios and pipe layouts were considered prior to the decision to recommend the systems shown in this report. The primary intent of the system is to provide a regional solution to the area in a manner consistent to the needs of the area. Serious consideration was given to the timing of development and the fair distribution of costs across the entire study group. Not only were ultimate build-out costs considered, but the up front costs were weighed in the layout decision.

### 5.2 Treatment Facilities

The proposed LPSCO facility, known as the Sarival Water Reclamation Facility (SWRF) located south of Sarival Road on McDowell Road, was planned to treat all residential and commercial sewer flows west of Bullard Avenue, between McDowell Road to the south and Bethany Road to the north. Surrounding development projects, planned for 2008, dictated the construction schedule of this facility. However, the recent sale of development properties stimulated development directly related to this facility, moving up the schedule for sewage treatment for development west of Bullard Road much sooner than originally planned.

Originally, the sewer flows from Palm Valley Phase-V were planned to flow west of Bullard Avenue to the proposed SWRF. However, the expedited development specific to sections 18 and 19 of the current service area has been redirected to the PVWRF. This additional flow will move up the schedule for the planned expansion of the PVWRF from 2008 to 2007. LPSCO is currently preparing an Aquifer Protection Permit amendment for the expansion of PVWRF from 4.1 to 8.2 MGD. The estimated 1,423 planned residential units of the Palm Valley Phase -V development will produce an average daily sewage flow is 513,360 gallons per day (based on 320 gallons per day per dwelling unit). Utilizing a peaking factor of 2.02 derived from the Harmon equation, the peak day flow for this development is estimated to be 1,036,987 gallons per day.

The original design concept of the Sarival Lift Station is to provide interim pumping capacity to the PVWRF from the northwest service area until such time that flows increased to a level that would support startup and continuous operation of a 4.2- million gallon per day (MGD) SWRF. It is estimated that the flow rate triggering the construction of the new facility would be 1.2 MGD average daily flow.

Phase II expansion of the SWRF will increase the treatment capacity by 4.1 MGD for an ultimate build out capacity of 8.2 MGD. Once the trigger flow rate of 3.4 MGD is reached (80% of design flow), design and construction will begin on the second phase, 4.1 MGD SWRF plant expansion. Once the flow rate increases to an average daily flow of 3.4 MGD, the Sarival Lift Station will be modified by replacing two (2) 1500 GPM pumps with two (2) 3000 GPM pumps and adding one (1) additional - 3,000 GPM pump, which will complete the full build out expansion of the Sarival Lift Station providing the following ultimate pumping capacity:

- Average Daily Flow - 8.1 MGD
- Peak Day Flow - 13.0 MGD
- Peak Hour Flow - 17.3 MGD

This will complete the full build-out expansion of the Sarival Lift Station and treatment plant providing sewer capacity for up to 25,300 residential units.

Summarizing the above, the effective project triggers are as follows (Note that Trigger 1 has already occurred):

- Trigger 1 – Palm Valley Phase-V triggers construction of the 2.0 MGD Sarival Lift Station, diverting flow to PVWRF until such time that sustained flows of 1.2 MGD warrant construction of the SWRF (currently being constructed – will be completed November 2004).
- Trigger 2 – PVWRF flows reach 3.4 MGD (80% of design flow) triggering design study and construction of plant expansion from 4.1 MGD to 8.2 MGD.
- Trigger 3 – Sarival Lift Station flows reach 1.2 MGD, triggering design study determining construction phasing of the SWRF.
- Trigger 4 – SWRF Phase I construction is completed as flows at the Sarival Lift Station increase from 1.2 MGD TO 2.0 MGD.
- Trigger 5 – Sarival Lift Station flows reach 2.0 MGD, triggering the replacement of one (1) 1500 GPM pump with one (1) 3000 GPM pump.
- Trigger 6 – Sarival Lift Station flows reach 3.4 MGD, triggering construction of the 2nd phase of the SWRF expanding treatment capacity from 4.1 to 8.2 MGD.
- Trigger 7 – Sarival Lift Station flows reach 3.4 MGD, triggering the replacement of two (2) 1500 GPM pump with two (2) 3000 GPM pump.
- Trigger 8 – Sarival Lift Station flows exceed 3.4 MGD, triggering the addition of one (1) 3000 GPM pump.

As previously mentioned, the Sarival Lift Station was initially constructed to provide sewage collection and pumping for all development west of Bullard Avenue. Due to the diversion of the planned flows of the Palm Valley Phase-V development (all development in sections 18 & 19) to the PVWRF, the Sarival Lift Station will immediately realize an additional 513,360 gallons average day flow (1423- residential units) of pumping capacity. Therefore, LPSCO currently possesses the necessary capacity to provide water and sewer service to the proposed project. Operation and maintenance of the sewage system will be in accordance with LPSCO procedures. LPSCO will provide the services in accordance with the current regulations of the Arizona Corporation Commission, the Arizona Department of Water Resources, MCESD, and any other regulatory agencies having jurisdiction.

## 6.0 Results

This report assumes right-of way will be available along the proposed alignments, and that there exist no unique situations not already mentioned. Efforts have been made to verify the availability of such right-of-way, but are not guaranteed. Changes in the route will result in increased costs which should be recognized at the time of development. Also it has been assumed that there will be no issues obtaining the necessary 208 designation. Notwithstanding these situations, the plan in this report can be implemented as proposed.

## 7.0 Timeline

Engineering and construction of the master sewer system is expected to begin in 2004, with connections available by 2005. The schedule for the system will be very aggressive in order to best suit all of those involved.

## 8.0 Cost/Benefit

By sharing system components, developers can realize great savings in time and money. This system offers better system reliability than other proposed treatment solutions by reducing the necessity for pumping and number of treatment facilities. Additionally, the environmental impact of this system will be much less than the use of septic systems. A regional solution will also reduce the desirability of a septic system solution or a subdivision package plant for future developments in the general area but not involved in this study. Because the properties not included account for a small area, as seen by Exhibit A, they can be easily added at a later date. By using conservative flow rates, additional capacity will likely be realized once a historic flow has been established.

## 9.0 Conclusion

The wastewater collection and disposal system has been designed as a regional solution for the anticipated end users. Focus has been placed on maximizing the benefit to the region. The proposed system will accomplish this task while providing a sufficient buffer of additional capacity for unforeseen modifications to the system.

The proposed system falls within three designated 208 regional planning areas. LPSCO will be seeking approval to amend the three 208 plans, permitting LPSCO to serve the area. Amended 208 plans will improve the existing planning and allow service sooner and more economically than can be accomplished through the current plans. Because capacity is currently available, the end user will be able to begin utilizing the system immediately upon the construction of infrastructure connecting the users to the facility. Additionally, with permitting in place for additional capacity, there will be no lapse in service while additional facilities are being approved. The treatment system can be completed in phases and scaled appropriately, thus offering the most economical price through cost sharing measures. This flexibility is critical to everyone involved, and is not currently offered by any other proposed solutions.

This solution provides a regional solution which should be supported by the local municipalities, the Arizona Corporation Commission, Maricopa County Environmental Services. The proposed regional plan is also beneficial to the environment by eliminating the need for future septic systems or subdivision package plants; instead this wastewater can be processed at a state-of-the-art facility and the reclaimed water can be used to benefit the community.

## References

### Manuals

Arizona Secretary of State, "*Arizona Administrative Code Title 18 Chapter 9 – Department of Environmental Quality Water Pollution Control*," Published by The State of Arizona, effective January 1, 2001.

City of Phoenix, "*City of Phoenix Design Standards Manual for Water, Wastewater, Reclaimed Water Systems*," Published by The City of Phoenix, effective April 1994.

City of Phoenix, "*City of Phoenix Supplement to Maricopa Association of Governments Uniform Standard Specifications*," Published by The City of Phoenix, effective January 1, 2002.

ADEQ Bullitin

### Computer Programs

AutoDesk Land Desktop, version 3, copyright 1982-2001  
AutoDesk, Incorporated  
111 McInnis Parkway  
San Rafael, CA 94903

SewerCAD, version 5.5, copyright 1999-2003.  
Haested Methods, Incorporated  
37 Brookside Road  
Waterbury, CT 06708 USA

**Table 1: Wastewater Flow Summary for White Tanks Regional Sewer Solution (LPSCO)**  
Flows in Gallons Per Day

Contributing Flows				
MH #	Dwelling Units	Commercial/Industrial Acres	School Site	Base Flow at Manhole
1	1423	29	0	513,360
2	8231	72	3	3,002,920
3	429	10	0	157,280
4	425	25	0	186,000
5	1280	20	1	524,600
6	500	370	0	900,000
7	0	0	0	-
8	0	0	0	-

Flows in Gallons Per Day						Pipe Data			
Pipe #	Contributing Manholes	Total Flow	Equivalent Population	Peaking Factor	Peak Flow	Pipe Size	Pipe Slope	Maximum Pipe Flow	Excess Capacity
1	1	513,360	5,134	1.97	1,013,179	12	0.74%	1,986,015	972,837
2	1-2	3,516,280	35,163	1.67	5,861,427	21	0.53%	7,473,189	1,611,763
3	1-3	3,673,560	36,736	1.66	6,103,520	24	0.36%	8,747,308	2,643,788
4	1-4	3,859,560	38,596	1.66	6,388,995	24	0.48%	10,088,490	3,699,495
5	1-5	4,384,160	43,842	1.64	7,189,754	24	0.35%	8,689,263	1,499,509
6	1-6	5,284,160	52,842	1.62	8,550,535	24	0.42%	9,446,030	895,495
7	1-7	5,284,160	52,842	1.62	8,550,535	24	0.50%	10,379,250	1,828,715
8	1-8	5,284,160	52,842	1.62	8,550,535	30	0.32%	14,943,977	6,393,443

**Table 2: Peaking Factor Table\***

Upstream Population	Peaking Factor
0	4.00
100	3.62
200	3.14
300	2.90
400	2.74
500	2.64
600	2.56
700	2.50
800	2.46
900	2.42
1000	2.38
1001 to 10,000	$PF = (6.330 \times p^{-0.231}) + 1.094$
10,001 to 100,000	$PF = (6.177 \times p^{-0.233}) + 1.128$
More than 100,000	$PF = (4.500 \times p^{-0.174}) + 0.945$

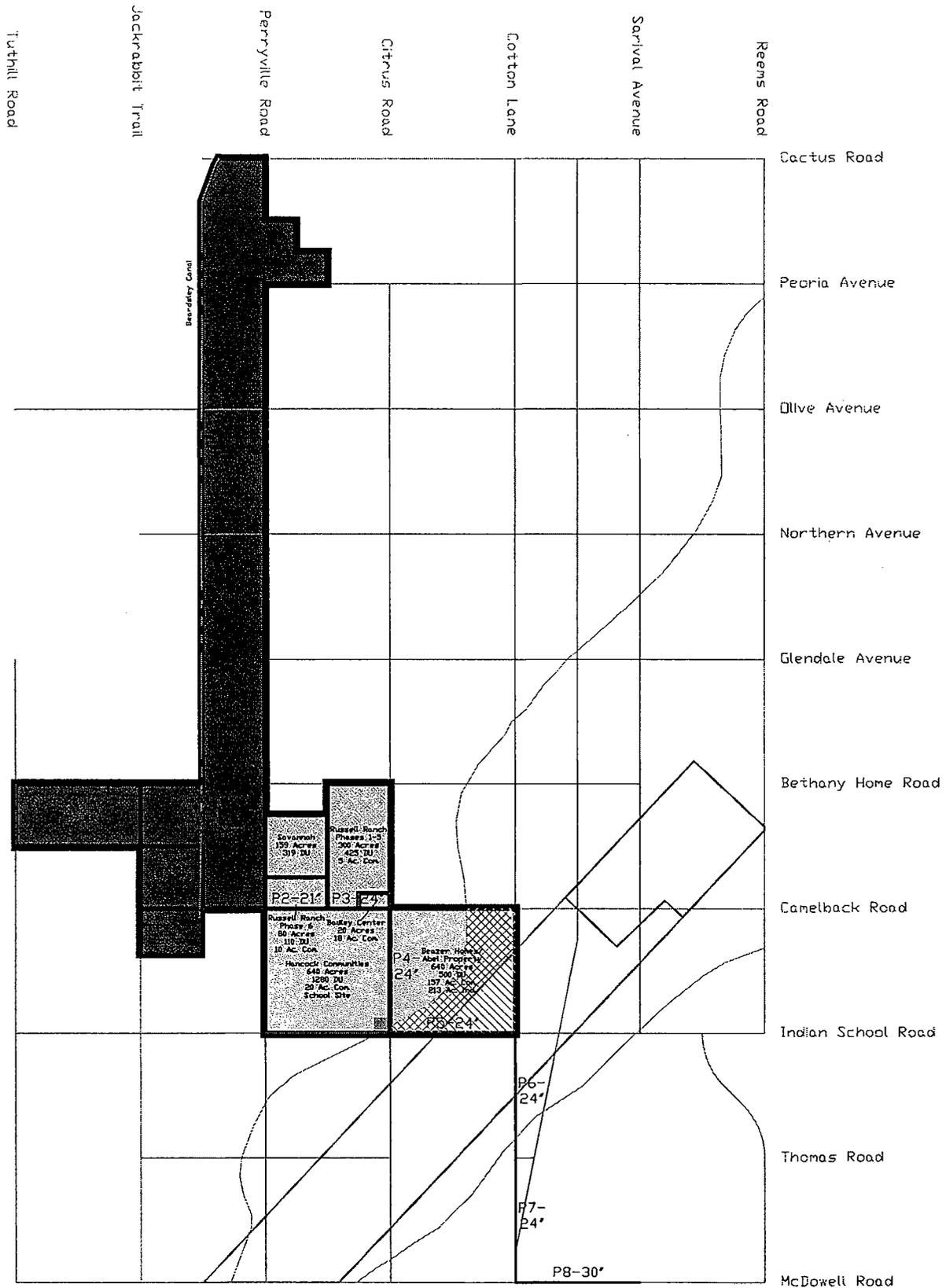
PF = Peaking Factor

p = Upstream Population = Flow (gpd)/100

\* Taken from the Arizona Administrative Code (AAC) Title 18

**Table 3: Pipe Flow Table**

Pipe Size	Pipe Slope (Minimum)	Pipe Flow at Minimum Slope (gpd)
8"	0.33%	445,959
10"	0.24%	691,559
12"	0.19%	1,001,791
15"	0.14%	1,564,087
18"	0.11%	2,249,183
21"	0.092%	3,108,784
24"	0.077%	4,058,870
30"	0.057%	6,327,442
36"	0.045%	9,145,384



- Accident Potential Zone E (Lake APB) - Commercial/Industrial Activity Only
- SS LBN Line (Lake APB) Noise Contour - 1 Acre Residential & Commercial/Industrial
- Commercial
- Residential 0-1 DU/Acre
- Residential 0-2 DU/Acre
- Residential 2-4 DU/Acre (Target Density 3 DU/Acre)



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 Phone: (480) 705-5372  
 Fax: (480) 705-5376

## **APPENDIX D – Aquifer Protection Permit Application**

This appendix contains the application for Aquifer Protection Permit (APP) submitted by LPSCo and relating to their existing and planned treatment facilities. The Draft APP amendment for the Palm Valley Water Reclamation Facility is currently under review by the Arizona Department of Environmental Quality. The Aquifer Protection Permit File number (APP) is #100310, Place ID #1014, and Letter to File (LTF) #34136.



Jane Dee Hull  
Governor

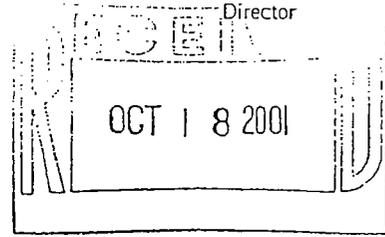
# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

3033 North Central Avenue • Phoenix, Arizona 85012-2809  
(602) 207-2300 • www.adeq.state.az.us



Jacqueline E. Schafer  
Director

October 11, 2001



David Ellis, General Manager  
Litchfield Park Service Company  
111 W. Wigwam Blvd.  
Litchfield Park, Arizona 85340

Re: Litchfield Park Service Company-Palm Valley Reclamation Facility  
Aquifer Protection Permit Number 100310

Dear Mr. Ellis:

Enclosed is a signed Aquifer Protection Permit with Executive Summary for the above referenced facility. The permit conditions shall apply from July 23, 2002 which is the date of the Water Quality Division Director's signature, and shall be valid for the life of the facility. Thank you for your cooperation in protecting the water quality of the State of Arizona.

If you have any questions regarding this permit or the facility, please feel free to contact me a 207-4503.

Sincerely,

Lee Sobchak  
Water Permits Section  
Water Quality Division

cc: Reza Azizi, Supervisor, Water Quality Compliance Unit  
Don Shroyer, Supervisor, Water Quality Data Unit  
Lynne Dekarske, Administrative Assistant, Water Permits Section  
Asif Majeed, Supervisor, Wastewater, Recharge, & Reuse Unit (letter only)  
Chuck Ohr, Water Quality Enforcement Unit

MWR01:0734

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EXECUTIVE SUMMARY  
AQUIFER PROTECTION PERMIT NO. 100310

**Facility Name:**

Litchfield Park Service Company-Palm Valley Reclamation Facility

**Facility Location:**

The facility will be located at 14222 McDowell Road, Goodyear, Maricopa County, Arizona, over groundwater of the Phoenix Active Management Area (AMA) in Township 02N, Range 01W, Section 33, Gila and Salt River Base Line and Meridian.

**Regulatory Status**

This is a new facility. The approval to construct for the facility will be issued by the Maricopa County Environmental Services Department. The Aquifer Protection Permit (APP) application was submitted on December 29, 2000.

**Facility Description:**

The permittee will operate a new wastewater treatment plant (WWTP) using Sequential Batch Reactor (SBR) technology with denitrification, tertiary filtration and ultra violet disinfection. The WWTP shall treat 4.1 million gallons per day of domestic sewage with expansion in the future to 8.2 at which time the permittee will apply for a permit amendment. The wastewater shall be transported for reuse according to terms and conditions of a reuse permit issued by the Department, or discharged to the Roosevelt Irrigation District (RID) canal. There shall be no sludge drying beds on site. Sludge shall be aerobically digested and dewatered onsite by a centrifuge process. The dewatered sludge shall be hauled to a landfill that is approved to accept these wastes. There will be effluent monitoring for Aquifer Water Standards inorganic chemicals and A+ reclaimed water standards.

**Best Available Demonstrated Control Technology (BADCT):**

The facility will denitrify the effluent to below 10.0 mg/l for total nitrogen and will disinfect using ultra violet technology. The facility will transport wastewater to a reuse facility and to the RID canal. This treatment plant technology, and water conservation through reuse is considered to meet BADCT requirements.

**Monitoring Requirements:**

Effluent will be monitored at the sampling at the discharge line. Monitoring will include total nitrogen, fecal coliform, enteric virus, turbidity and metals.

**Compliance with Aquifer Water Quality Standards (AWQS):**

The facility produces tertiary treated effluent with nitrogen removal. Due to the materials used for construction of the facility, the depth to groundwater greater than 130 feet and the effluent being used for reuse, standards will be met at the point of compliance.

**Point of Compliance:**

The point of compliance is located northwest of the WRF as shown in Part II.B.2.a of the permit.

**Storm/Surface Water Considerations:**

There are no storm/surface water considerations required for this facility.

**Zoning Requirements:**

The facility satisfies the necessary zoning requirements.

**Financial Capability:**

The permittee has provided the financial information required pursuant to A.A.C. R18-9-A203.

**Technical Capability:**

The permittee has contracted work for the design and construction of the facility to a company that is experienced in WWTP design and construction. The WWTP will be operated by a certified wastewater facility operator.

Is:ls

STATE OF ARIZONA

AQUIFER PROTECTION PERMIT NO. P-100310

PART I. AUTHORIZATION TO DISCHARGE POLLUTANTS IN A MANNER SUCH THAT CURRENT AND REASONABLY FORESEEABLE FUTURE USES OF THE AQUIFER ARE PROTECTED

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3; Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 & 2; A.A.C. Title 18, Chapter 11, Article 4; and conditions set forth in this permit:

Facility Name: Palm Valley Water Reclamation Facility

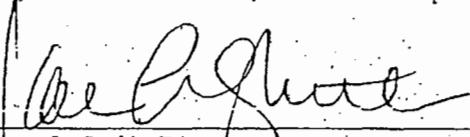
Owner & Operator:

Litchfield Park Service Company  
111 W. Wigwam Blvd., Suite B  
Litchfield Park, Arizona 85340

is authorized to operate the Palm Valley Water Reclamation Facility at 14222 McDowell Road, in Goodyear, Maricopa County, Arizona, over the groundwater of the Phoenix Active Management Area (AMA) basin in Township 02 N, Range 01W, Section 33 NW¼ SE¼ SW¼- Gila and Salt River Base Line and Meridian, at:

Latitude 33° 27' 55" North  
Longitude 112° 21' 56" West

This permit shall become effective on the date of the Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) provided that the facility is constructed, operated, and maintained pursuant to all the conditions of this permit according to the design and operational information documented or referenced in PARTS I, II, III, IV, V, and VI of this Permit, and such that Aquifer Water Quality Standards are not violated.

  
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Karen L. Smith, Director  
Water Quality Division  
Arizona Department of Environmental Quality

Signed this 23<sup>rd</sup> day of July, 2001

PART II. SPECIFIC CONDITIONS

A. Discharge Limitations

1. The permittee is authorized to operate an wastewater treatment plant (WWTP) using Sequential Batch Reactor (SBR) technology with denitrification tertiary filtration and ultra violet disinfection. The WWTP shall treat 4.1 million gallons per day of domestic sewage. The wastewater shall be transported for reused according to terms and conditions of a reuse permit issued by the Department, or discharged to the Roosevelt Irrigation District (RID) canal. There shall be no sludge drying beds on site. Sludge shall be aerobically digested and dewatered onsite by a centrifuge process. The dewatered sludge shall be hauled to a landfill that is approved to accept these wastes. The WWTP construction shall conform to the final design report submitted with the Aquifer Protection Permit for this facility
2. The materials authorized to be disposed of through the wastewater treatment plant are typical sewage and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. Specific discharge limitations are specified in PART IV, TABLE I.
4. The permittee shall adhere to all requirements of the Operations and Maintenance (O & M) manual and any revision thereof to the O & M manual.
5. This facility is classified as generating class A+ reclaimed water according to Arizona Administrative Code R18-11-303.

B. Monitoring Requirements

1. Discharge Monitoring

Discharge from the WWTP shall be monitored according to PART IV, TABLE I.

Discharge monitoring shall be performed at:

Identification	Latitude	Longitude
after disinfection at a sample port in the discharge line	33° 27' 55" N	112° 21' 56" W

2. Groundwater Monitoring

a. Point(s) of Compliance.

The point of compliance (POC) for this facility is designated at the following location:

Identification	Latitude	Longitude
Northwest corner of the WWTP	33° 27' 54"	112° 21' 54"

The Director shall designate additional point(s) of compliance if information on groundwater gradients indicates the need.

b. Monitoring Well Locations

Monitor wells are not required.

c. Ambient Groundwater Quality Monitoring

Not required.

d. Compliance Monitoring

Groundwater monitoring may be required as defined in Contingency Plan Requirements section II.C.

3. Operational Monitoring

a. Pre-operational QA/QC Requirements

Not required

b. Facility Maintenance Inspection

(1) The pollution control structures shall be inspected for the items listed in PART IV, TABLE II. A log of these inspections shall be kept at the facility for ten (10) years from the date of each inspection, available for review by ADEQ personnel.

(2) If any damage of the treatment plant structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form (SMRF) and submitted quarterly to the ADEQ Water Quality Compliance.

## c. Fissure Monitoring

Not Required.

## 4. Sampling Protocols

## a. Discharge Monitoring System

Sample collection, preservation, and holding times shall be consistent with the 1991 ADEQ Quality Assurance Project Plan or procedures described in EPA 40 CFR PART 136.

## b. Groundwater Monitoring

Groundwater monitoring is not required in this permit unless required in a contingency plan. If groundwater monitoring is required per Contingency Plan in Part II.C., then the permittee shall follow the conditions as stated below.

(1) Sample collection, preservation, and holding times shall be consistent with the most recent ADEQ Quality Assurance Project Plan or procedures described in EPA 40 CFR PART 136.

(2) Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until indicator parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well should be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well will be recorded as dry for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported on the SMRF.

## 5. Installation and Maintenance of Monitoring Equipment

## a. Discharge Monitoring Equipment

The permittee shall provide monitoring or sampling access, ports, or devices at the facility for all monitoring required in this permit.

## b. Groundwater Monitoring Equipment

Any groundwater monitoring wells, if required by this permit or

contingency plan, shall be installed and maintained according to plans approved by ADEQ Water Permits Section so that proper groundwater samples can be collected. Should additional groundwater wells be determined necessary, the construction details shall be submitted to ADEQ Water Permits Section for approval.

6. Monitoring Records

The following information associated with each sample, inspection or measurement and the name of each individual who performed the sampling or measurement should be included in the monitoring records;

- a. Date, time and exact place of sampling, inspection, or measurement and the name of each individual who performed the sampling or measurement.
- b. Procedures used to collect the sample or make the measurement.
- c. Date on which sample analysis was completed.
- d. Name of each individual and laboratory who performed the analysis.
- e. Analytical techniques or methods used to perform the sampling and analysis; laboratory detection limit for each test method performed; analytical variance for each parameter analyzed.
- f. Chain of custody records.
- g. Any field notes relating to the information described in subparagraphs a through f above.

C. Contingency and Emergency Response Plan Requirements

The permittee shall maintain at least one copy of a contingency plan(s) at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall advise anyone responsible for the operation of the facility of the location of copies of all contingency and emergency response plans.

The following requirements shall constitute the contingency plan for this facility.

1. General AL/DL Contingencies

- a. Alert Level (AL) or Discharge Limit (DL) Exceedance
  - (1) The permittee shall notify the Department at the address specified in PART II.H.1 within five days of becoming aware of the exceedance of an Alert Level or Discharge Limit.

- (2) Verification sampling shall be conducted within five days of becoming aware that Alert Level or Discharge Limit has been exceeded.
- (3) Within five days of receiving the results of verification sampling from the laboratory, the permittee shall notify the Department of the results, at the address indicated in PART II.H.1, regardless of whether the results are positive or negative.
  - (a) If the results of verification sampling indicate that an AL or DL has not been exceeded, the permittee shall assume that no exceedance has occurred and, unless the permittee is otherwise instructed by the Department, no further action is required until the next scheduled monitoring round.
  - (b) If the results verify that an AL or DL has been exceeded, the permittee shall, within 30 days of receiving the laboratory results verifying that an AL or DL has been exceeded, submit to ADEQ Water Quality Compliance, either (i) or (ii) of the following:
    - (i) a written report which includes the documentation specified in PART II.H.3.b. Upon approval by the Department, the permittee shall initiate the actions necessary to mitigate the impacts of the exceedance. At a minimum, the plan shall include provisions for more frequent sampling until constituent concentration is below the AL or DL for two consecutive samples. The plan shall indicate if any additional parameters are to be tested.
    - (ii) a demonstration that the AL or DL exceedance resulted from error(s) in sampling, analysis, or statistical evaluation.
- (4) In the event of an AL or DL exceedance, the Department may require additional monitoring, studies, or remedial activities beyond those specified in this permit. In addition, if the permittee submits a demonstration that the AL or DL exceedance was due to error(s) in sampling, analysis, or statistical evaluation, and this demonstration is not accepted by the ADEQ, the Department may require that the permittee submit the documentation included in PART II.H.3.b.

- (5) In the event that an AL or DL is exceeded for four consecutive months, the Director may require that monitor wells be installed at the point of compliance and upgradient of the facility. At that time, a groundwater monitoring plan including a parameter list, sampling frequencies, and protocols will be added to this permit based on AL or DL exceedance data.

2. Accidental Discharge/Spills

The permittee shall correct any failure that results in the violation of permit conditions and take the following action:

- a Within 30 days of a spill that might cause the exceedance of an Aquifer Quality Limit (AQL) or might cause imminent and substantial endangerment to public health or the environment, the permittee shall submit a written report that includes the documentation required in PART II.H.3.b to ADEQ's Water Quality Compliance. Upon review of the above required report, the Department may require additional monitoring, sampling and/or actions.
- b In the event of an accidental spill or unauthorized discharge of suspected hazardous or toxic materials on the facility site, the related area shall be promptly isolated and attempts to identify the material shall be made. Information on persons that may have been exposed to the material will be recorded. A qualified contractor shall remove and dispose of the material according to applicable federal, state and city regulations.

3. Drainage Failure

If a drainage structure such as a ditch or diversion berm fails or is blocked, prompt action shall be taken immediately to repair the temporary structures with readily available materials so as to minimize impacts on the facility. The temporary repairs shall be replaced by permanent repairs as soon as conditions allow. The repairs or permanent replacements of any temporary structure shall be designed to prevent future failures.

4. Emergency Response

- a The permittee shall provide for emergency response on a 24-hour basis in the event that a condition arises which results in imminent and substantial endangerment to public health or the environment. The plan shall be kept at the facility and provide for the following:
  - (1) designation of an emergency response coordinator who shall notify ADEQ's Water Quality Compliance and activate the necessary contingency plan in the event of an emergency;

- (2) a general description of the procedures, personnel and equipment to be used to assure appropriate mitigation of unauthorized discharges; and
- (3) a list of names, addresses and telephone numbers of persons to be contacted in the event of an emergency.

- b. In the event that emergency response measures are taken or those portions of the contingency plan that address an imminent and substantial endangerment are activated, the emergency response coordinator shall notify ADEQ's Water Quality Compliance immediately.

D. Temporary Cessation

The permittee shall notify ADEQ Water Quality Compliance in writing before temporary cessation of any operation at the facility. Notification of the temporary cessation does not relieve the permittee of any permit requirements unless otherwise specified in this permit.

Accompanying the notification shall be a description of any measures to be taken to maintain discharge control systems such that discharge is minimized to the maximum extent practicable during temporary cessation.

E. Closure

1. The permittee shall notify ADEQ Water Permits Section of intent to cease, without intent to resume, an activity for which the facility was designed or operated prior to ceasing. Within 90 days following notification, the permittee shall submit for approval, to ADEQ Water Quality Compliance, a closure plan which eliminates, to the greatest extent practicable, any reasonable probability of further discharge from the facility and of exceeding Aquifer Water Quality Standards at the applicable point of compliance. This plan shall be in addition to any approved closure method referenced in the facility file. The plan shall describe the following details:
  - a. The approximate quantities and the chemical, biological, and physical characteristics of the materials to be removed from the facility;
  - b. the destination of the materials to be removed from the facility and an indication that placement of the materials at that destination is approved;
  - c. the approximate quantities and the chemical, biological, and physical characteristics of the materials that will remain at the facility;
  - d. the methods to be used to treat any materials remaining at the facility;
  - e. the methods to be used to control the discharge of pollutants from the facility;

- f. any limitations on future land or water uses created as a result of the facility's operations or closure activities;
  - g. the methods to be used to secure the facility;
  - h. an estimate of the cost of closure; and
  - i. a schedule for implementation of the closure plan and the submission of a post-closure plan.
2. Upon completion of closure activities, the permittee shall give written notice to ADEQ Water Quality Compliance indicating that the approved closure plan has been implemented fully, and shall provide proof of the inclusion in the deed to the property of complete information about the materials buried and quantity of regulated substances remaining at the facility and any limitations on future land or water uses created as a result of the facility's operations or closure activities.

F. Post-Closure

1. Post-closure requirements by ADEQ Water Permits Section will be based on the review of facility closure activities.
2. If a post-closure plan is required, the post-closure plan shall ensure that any reasonable probability of future discharges from the facility, and of exceeding Aquifer Water Quality Standards at the applicable points of compliance, are eliminated to the greatest extent practicable. The post-closure plan shall describe all of the following:
  - a. The duration of the post-closure care.
  - b. The monitoring procedures to be implemented by the permittee, including monitoring frequency, type, and location.
  - c. A description of the operating and maintenance procedures to be implemented for aquifer quality protection devices, such as liners, treatment systems, pump-back systems, and monitoring wells.
  - d. A schedule and description of physical inspections to be conducted at the facility following closure.
  - e. An estimate of the cost of post-closure maintenance and monitoring.
  - f. A description of limitations on future land or water uses; or both, at the facility site as a result of facility operations.
3. The permittee shall notify ADEQ Water Permits Section in writing when the post-closure activities have been completed.

G. Compliance Schedule Requirements

1. A copy of the emergency response plan shall be submitted to ADEQ Water Quality Compliance within 30 days from the effective date of this permit. The plan shall include the information as referenced in PART II.C.4.

H. Reporting Requirements

1. Reporting Location

Signed copies of all reports required herein shall be submitted to the Department.

Arizona Department of Environmental Quality  
Water Quality Compliance, Data Unit (M0501B)  
3033 N. Central Ave.  
Phoenix, Arizona 85012  
Phone Number: (602) 207-4681

2. Monitoring Reporting

- a. The permittee shall complete the SMRF provided by the Department to reflect facility inspection requirements designated in PART IV, TABLE II and submit to ADEQ Water Quality Compliance quarterly along with other reports required by this permit. Facility inspection reporting on the SMRF shall be submitted no less frequently than quarterly, regardless of operational status.
- b. PART IV, TABLE I contain the frequency for reporting results from discharge monitoring requirements. Results shall be submitted in the SMRF. Monitoring methods shall be recorded and any deviations from the methods and frequencies prescribed in this permit shall be reported.
- c. The permittee shall complete the SMRF, to be supplied by the Department. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of the permit.

3. Permit Violation or Alert Level Exceedance Reporting

- a. The permittee shall notify ADEQ Water Quality Compliance within five days of becoming aware of a violation of any permit condition or an Alert Level having been exceeded.
- b. The permittee shall submit a written report within 30 days after becoming aware of the violation of a permit condition or of an Alert Level having been exceeded. The report shall document all of the

following:

- (1) A description of the violation and its cause;
- (2) the period of violation, including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
- (3) any action taken or planned to mitigate the effects of the violation, or to eliminate or prevent recurrence of the violation;
- (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and
- (5) any malfunction or failure of pollution control devices or other equipment or process.

4. Amendments Reporting

- a. All requests for permit amendments shall be done in accordance with PART VI.M., unless otherwise specified in this permit.
- b. Requests for a significant amendment to a facility shall be submitted at least 180 calendar days before making the permit amendments.

5. Operational Reporting

- a. The permittee shall report operational conditions listed in PART IV, TABLE II in the SMRF quarterly. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate that fact in the SMRF.
- b. The permittee shall submit data required in PART IV, TABLES I & II regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

6. Monitoring Records Retention & Submittal

The facility shall retain copies of laboratory analysis forms, and other relevant information such as documentation on sampling date and time, name of sampler, static water level prior to sampling, sampling method, purging volume, indicator parameters, analytical method, method detection limit, date of analysis, preservation and transportation procedures, and analytical facility for a period of 10 years. All analytical and inspection data shall be compiled on SMRFS and submitted to ADEQ.

## 7. Submittal of Sampling Reports:

Reports of samples taken will be submitted to ADEQ Water Quality Compliance within 30 days after the end of each quarter. The following schedule will be used:

Samples taken during quarter beginning	Quarterly Report due by
Jan 1	Apr 30
Apr 1	Jul 30
Jul 1	Oct 30
Oct 1	Jan 30

## PART III. OTHER CONDITIONS

A. Analytical Methodology

The water samples shall be analyzed using EPA approved methods or Arizona State approved methods as long as the method detection limit is equal to or less than the limits listed in Table I, PART IV. The analysis shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure & Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of certified laboratories can be obtained at the address listed below:

Arizona Department of Health Services  
Office of Laboratory Licensure & Certification  
1740 W. Adams Street, Room 203 North  
Phoenix, Arizona 85007  
Phone Number: (602) 364-0720

B. Environmental Laboratory Contact

Upon submittal of the samples to a state-certified laboratory for analysis, a copy of the signed permit shall be forwarded to the laboratory for reference.

PART IV. TABLE

TABLE I  
 DISCHARGE MONITORING

Sampling Point Number	Identification	Latitude	Longitude
1	after disinfection at a sample port in the discharge line <sup>2</sup>	33° 27' 55" N	112° 21' 56" W

Parameter	Alert Level (AL)	Discharge Limit (DL)	Sample Type	Sampling Frequency	Reporting Frequency
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Flow	3.9MGD	4.1MGD <sup>3</sup>	AT <sup>4</sup>	Daily	Quarterly
Total Nitrogen <sup>5</sup>	8.0	10.0	Discrete	Monthly	"
Nitrate and Nitrite (as N)	NL <sup>6</sup>	NL	"	"	"
Total Kjeldahl Nitrogen (TKN)	NL	NL	"	"	"
Enteric Virus (4 of 7 samples)	NL	None <sup>7</sup> Detected per 40 liter sample	AT	Monthly	"

<sup>1</sup> All Discharge Limits in this table are listed in mg/l except flow which is in million gallons per day (MGD).

<sup>2</sup> Turbidity samples shall be taken after filtration and before disinfection.

<sup>3</sup> MGD equals million gallons per day based on average daily monthly flow.

<sup>4</sup> Appropriate Technology.

<sup>5</sup> Total Nitrogen equals Nitrate-Nitrite plus TKN.

<sup>6</sup> NL means no limit.

<sup>7</sup> When the first four samples of no greater than seven are non detect, sampling for Enteric Viruses will be suspended and the permittee may place "sampling not required" in the SMRF. This shall continue until turbidity exceedances occur (see footnote # 9).

Turbidity (single reading)	NL	5 NTU's <sup>8</sup>	AT <sup>9</sup>	Daily <sup>10</sup>	"
Turbidity (24 hour average)	NL	2 NTU's	"	Daily <sup>11</sup>	"
Fecal Coliform (single sample)	NL	23 CFU <sup>12</sup>	Discrete	Daily <sup>13</sup>	"
Fecal Coliform (4 of 7 samples)	NL	0 CFU		Daily	"

Parameter	AL	DL	Sampling Frequency	Reporting Frequency
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Metals (Total):

Parameter	AL	DL	Sampling Frequency	Reporting Frequency
Arsenic	0.04	0.05	Quarterly	Quarterly
Antimony	0.0048	0.006	"	"
Barium	1.8	2.0	"	"
Beryllium	0.0032	0.004	"	"
Cadmium	0.004	0.005	"	"
Chromium	0.08	0.10	"	"
Fluoride	3.2	4.0	"	"
Lead	0.04	0.05	"	"
Mercury	0.0016	0.002	"	"
Nickel	0.08	0.1	"	"
Selenium	0.04	0.05	"	"
Thallium	0.0016	0.002	"	"

<sup>8</sup> NTU means nephelometric turbidity unit.

<sup>9</sup> Appropriate technology for turbidity monitoring shall be an instrument with a signal averaging time not exceeding 120 seconds. Any exceedance of the single sample reading or the 24 hour average shall result in sampling for enteric virus according to the sampling schedule in this table, except that occasional spikes in the turbidity measurement due to backflushing or an instrument malfunction will not be considered an exceedance. An exceedance must be explained and submitted to the Department with the corresponding quarterly Self Monitoring Report Form.

<sup>10</sup> Means a single maximum reading during the 24 hour period.

<sup>11</sup> Means continuous readings 24 hours per day, and is reported as a 24 hour average.

<sup>12</sup> CFU means colony forming units in a 100 milliliter sample.

<sup>13</sup> "Daily" means every day on which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each calendar week are obtained and analyzed.

Turbidity (single reading)	NL	5 NTU's <sup>8</sup>	AT <sup>9</sup>	Daily <sup>10</sup>	"
Turbidity (24 hour average)	NL	2 NTU's	"	Daily <sup>11</sup>	"
Fecal Coliform (single sample)	NL	23 CFU <sup>12</sup>	Discrete	Daily <sup>13</sup>	"
Fecal Coliform (4 of 7 samples)	NL	0 CFU		Daily	"

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Chromium	0.08	0.10	"	"
Fluoride	3.2	4.0	"	"
Lead	0.04	0.05	"	"
Mercury	0.0016	0.002	"	"
Nickel	0.08	0.1	"	"
Selenium	0.04	0.05	"	"
Thallium	0.0016	0.002	"	"

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<sup>10</sup> Means a single maximum reading during the 24 hour period.

<sup>11</sup> Means continuous readings 24 hours per day, and is reported as a 24 hour average.

<sup>12</sup> CFU means colony forming units in a 100 milliliter sample.

<sup>13</sup> "Daily" means every day on which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each calendar week are obtained and analyzed.

## PART V REFERENCES: PERTINENT INFORMATION

A. References

The terms and conditions set forth in this permit have been developed based upon the information contained in the following:

1. Field Inspection Form(s) dated: None
2. Permit Application dated: 12/29/00
3. Engineering Review File Number:
4. Aquifer Impact Review dated: 4/3/01
5. Preliminary Decision to Issue dated:
6. Public Notice dated: April 26, 2001
7. Public Hearing comments; correspondence and any additional supplemental information contained in the permit file: None
8. Other:

B. Facility Information

1. Facility Contact Person: David Ellis  
Title: General Manager
2. Address: Litchfield Park Service Company  
111 W. Wigwam Blvd.  
Litchfield Park, Arizona 85340
3. Emergency Telephone Number: 623-935-9367

The Department shall be notified within 30 days of the change in facility contact person.

4. Landowner of Facility Site:  
Litchfield Park Service Company  
111 W. Wigwam Blvd.  
Litchfield Park, Arizona 85340

## PART VI. GENERAL CONDITIONS AND RESPONSIBILITIES

- A. Annual Registration Fees.**  
The permittee shall pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by ARS § 49-242(D). This fee is payable to ADEQ by January 31, each year.
- B. Duty to Comply. [A.R.S. §§ 49-221 through 263]**  
The permittee shall comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes and Title 18, Chapter 9, Articles 1 through 4 and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit modification, suspension, or revocation.
- C. Duty to provide information. [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]**  
The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for modifying, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- D. Severability. [A.R.S. § 49-243(K)(8)]**  
The provisions of this permit are severable; and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- E. Proper Operation and Maintenance. [A.R.S. § 49-243(K)(8)]**  
The permittee shall, at all times, properly operate and maintain all facilities, treatment processes, and discharge control systems which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit.
- F. Compliance with Aquifer Water Quality Standards. [A.R.S. § 49-243(B)(2) and (B)(3)]**  
The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.
- G. Technical and Financial Capability. [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]**  
The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial

capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

**H. Reporting of Bankruptcy or Environmental Enforcement. [A.A.C. R18-9-A207(C)]**  
The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

**I. Monitoring and Records. [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]**

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221, 49-223 and 49-241 through 49-252.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall retain records of all monitoring information, including: copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of 10 years from the date of the sample, measurement report, or application. This period may be extended by request of the Director at any time.
3. At a minimum, records of monitoring information shall include:
  - a. The date, time, and exact place of sampling or measurements
  - b. The individual(s) who performed the sampling or measurements
  - c. The date(s) analyses were performed
  - d. The individual(s) who performed the analyses
  - e. The analytical techniques or methods used
  - f. The results of such analyses
  - g. The chain of custody records, and
  - h. Any field notes relating to the information described in (a) - (g) above.

**J. Other information. [A.R.S. § 49-243(K)(8)]**

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information:

**K. Inspection and Entry. [A.R.S. §§ 49-203(B) and 49-243(K)(8)]**

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit. In so doing, the Department representative may:

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or locations where records must be kept under the conditions of this permit.

2. Have access to and copy, at reasonable times, any records required to be kept under the conditions of this permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.
5. Take photographs or video tape.
6. Take other actions reasonably necessary to determine compliance with Aquifer Protection Permit statutes or rules or the terms and conditions of this permit.

**L. Duty to Modify. [A.R.S. § 49-243(K)(8)]**

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

**M. Permit Action: Amendment, Transfer, Suspension & Revocation.**

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition. The Director shall issue a public notice of all proposed permit actions pursuant to A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213.

**1. Permit Reopen.**

The Director may reopen this permit and amend it pursuant to A.A.C. R18-9-A211.

**2. Permit Transfer.**

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer will be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

The operator shall notify the Water Permits Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

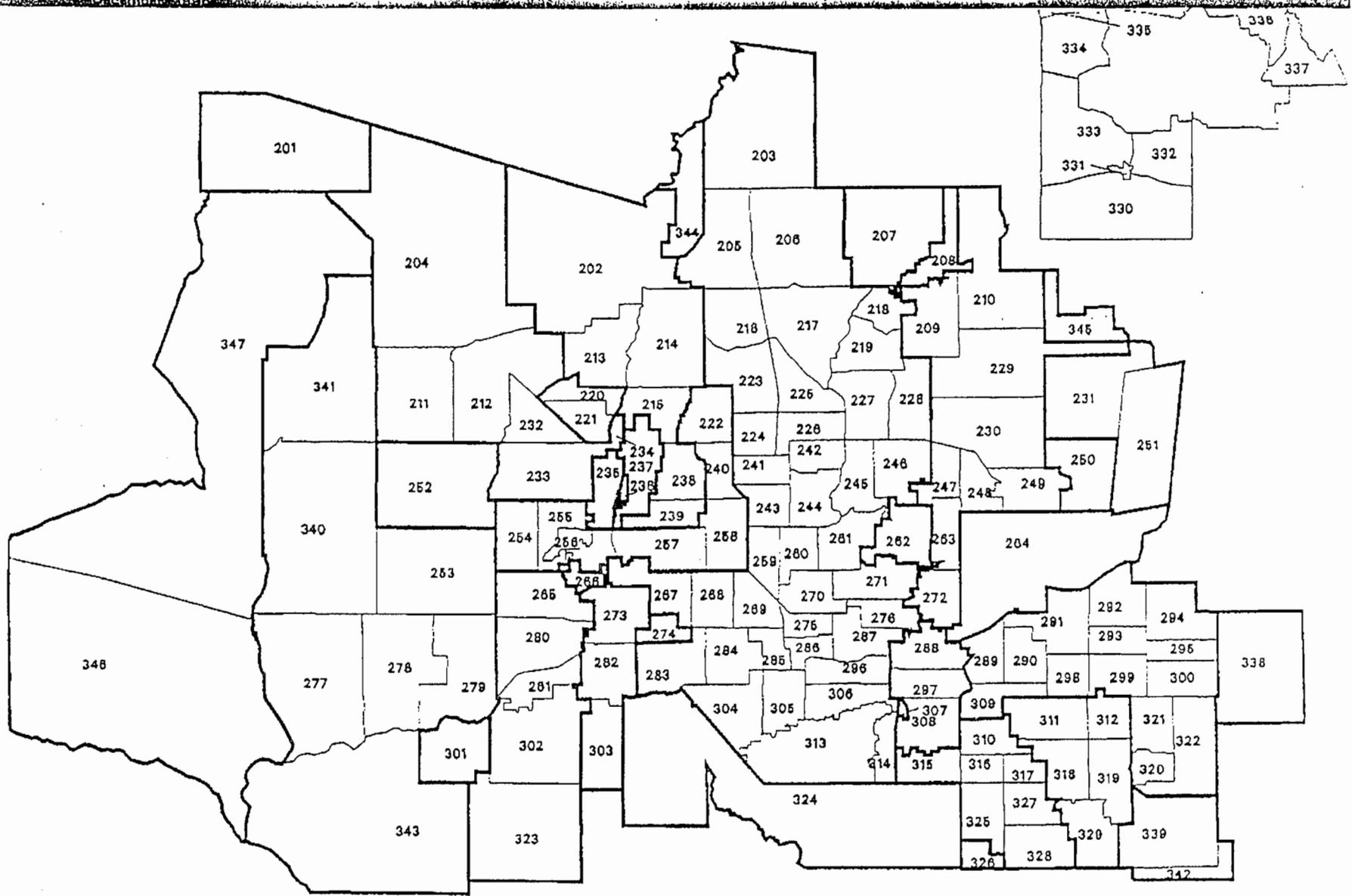
TABLE II  
FACILITY INSPECTION

Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good Working Condition	Weekly
Treatment Plant Components	Good Working Condition	Weekly

## **APPENDIX E – MAG Regional Analysis Zones and Population Projections**

The Regional Analysis Zone map and the population projections in this appendix were copied from the MAG 208 Water Quality Management Plan, October 2002.

# MUNICIPAL PLANNING AREAS



## REGIONAL ANALYSIS ZONES

— Municipal Planning Area Boundary  
— RAZ Boundary

**POPULATION PROJECTIONS SUMMARY – MAG 208 WQMP REVISION**

Year	2000	2005	2010	2015	2020
<b>MAG Planning Area Population Summary</b>					
Total Resident	2,954,150	3,329,550	3,709,575	4,101,775	4,516,100
Total Non-resident	89,174	95,441	103,395	114,067	125,026
Transient	36,118	38,737	41,242	43,164	45,125
Seasonal	53,056	56,704	62,153	70,903	79,901
<b>Total</b>	<b>3,132,498</b>	<b>3,520,432</b>	<b>3,916,365</b>	<b>4,329,909</b>	<b>4,766,152</b>
<b>Resident and Seasonal Population by 208 Planning Region and Municipal Planning Area</b>					
<b>Northeast Region</b>					
Cave Creek	4,231	6,463	9,188	11,398	13,288
Carefree	3,041	3,578	4,760	5,196	5,564
Scottsdale	206,429	244,556	273,343	297,940	311,047
Fountain Hills	18,745	26,113	34,939	52,860	54,999
Paradise Valley	13,353	13,388	13,587	13,734	13,760
SRPMIC	6,851	6,975	7,024	7,162	7,467
County -Rio Verde	1,152	1,179	1,216	1,253	1,286
County-Spur Cross	58	58	58	58	58
Fort McDowell	750	838	944	1,097	1,174
<b>Subtotal</b>	<b>254,610</b>	<b>303,148</b>	<b>345,059</b>	<b>390,698</b>	<b>408,643</b>
<b>Northwest Region</b>					
Peoria	96,974	130,910	145,797	172,138	188,834
Surprise	27,739	38,486	43,105	49,205	64,143
El Mirage	6,605	6,678	6,702	6,869	8,148
Youngtown	2,978	3,040	3,119	3,206	3,286
Glendale	215,477	235,863	259,808	287,873	305,529
Luke AFB	3,794	3,796	3,815	3,815	3,821
County	71,994	73,551	75,536	79,332	86,462
<b>Subtotal</b>	<b>425,561</b>	<b>492,324</b>	<b>537,882</b>	<b>602,438</b>	<b>660,223</b>
<b>Southeast Area</b>					
Mesa	444,643	500,151	561,764	591,196	619,228
Tempe	166,207	172,458	176,878	183,392	185,862
Guadalupe	5,506	5,665	5,724	5,731	5,736
Chandler	171,099	199,967	223,398	242,995	261,587
Gilbert	108,688	132,978	174,856	201,616	245,440
Queen Creek	7,452	10,735	14,042	17,283	20,584
County - Sun Lakes	13,241	15,900	18,539	22,169	26,839
<b>Subtotal</b>	<b>916,836</b>	<b>1,037,854</b>	<b>1,175,201</b>	<b>1,264,382</b>	<b>1,365,276</b>
<b>Southwest Area</b>					
Buckeye	18,084	22,385	28,176	51,446	82,416
Goodyear	19,939	28,504	38,425	58,712	93,396
Litchfield Park	4,942	6,583	8,519	12,629	14,778
Avondale	29,450	32,922	37,909	52,307	85,294
Tolleson	4,525	4,783	6,955	7,603	8,267
Unincorporated Areas	1,471	2,509	3,472	5,166	7,816
<b>Subtotal</b>	<b>78,411</b>	<b>97,686</b>	<b>123,456</b>	<b>187,863</b>	<b>291,967</b>

**POPULATION PROJECTIONS SUMMARY – MAG 208 WQMP REVISION**

Year	2000	2005	2010	2015	2020
Central Area					
Phoenix	1,309,799	1,427,315	1,557,858	1,687,240	1,812,784
Outlying Areas					
Wickenburg	8,495	8,967	9,516	10,070	10,582
Gila Bend	2,124	2,249	2,393	2,548	2,742
GRIC	2,708	2,764	2,832	2,919	3,101
County SW	5,568	8,530	10,614	14,854	25,006
County SE	-	-	-	-	-
County NE	1,784	3,475	3,947	4,067	4,119
County NW	1,310	1,942	2,970	5,599	11,558
Subtotal	21,989	27,927	32,272	40,057	57,108
SROG					
Phoenix	1,309,799	1,427,315	1,557,858	1,687,240	1,812,784
Youngtown	2,978	3,040	3,119	3,206	3,286
Glendale	219,271	239,659	263,623	291,688	309,350
Tempe	166,207	172,458	176,878	183,392	185,862
Mesa	444,643	500,151	561,764	591,196	619,228
Scottsdale	206,429	244,556	273,343	297,940	311,047
Subtotal	2,349,327	2,587,179	2,836,585	3,054,662	3,241,557

**Notes:**

1. The resident population, housing unit and employment projections are consistent with the October 27, 1995 Special Census.
2. The resident population and employment projections were prepared to be consistent with the county population control totals developed by the Department of Economic Security (DES) and approved by the director of DES in January 1997 as required by Executive Order 95-2.
3. These projections were based on planned and proposed development and adopted land use plans.
4. These projections should be used with caution. They are subject to fluctuation as a result of changes in economic and development conditions.

Prepared by Carollo Engineers for the purpose of 208 Water Quality Management Planning, based on "MAG Socioeconomic Projections Interim Report, June 1997".

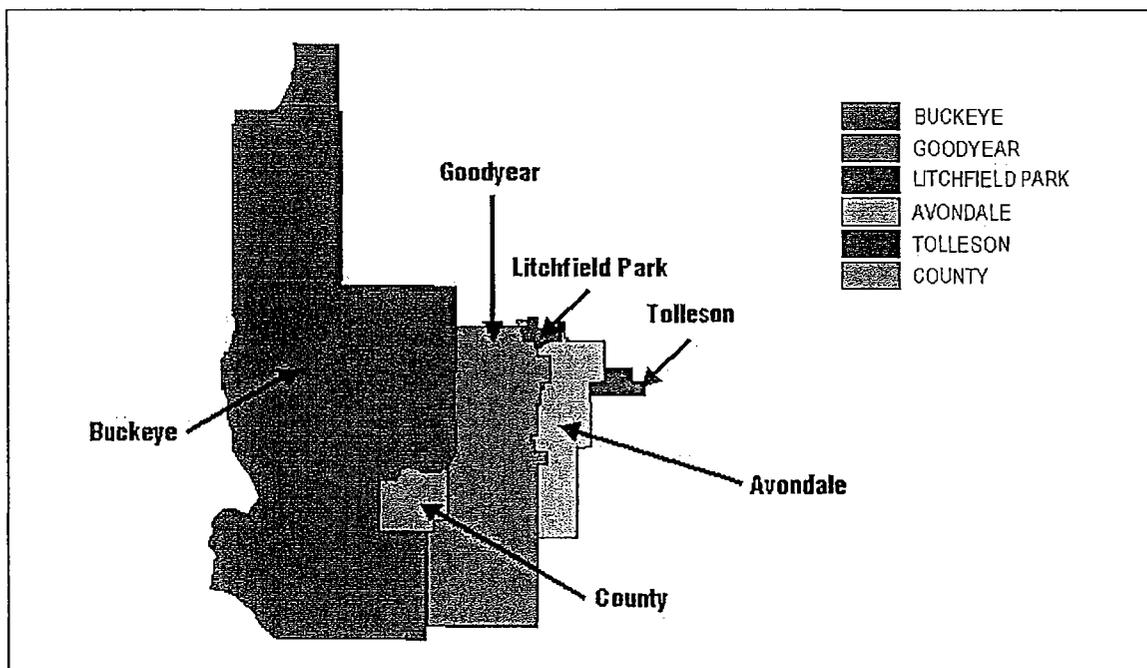
<b>Table 2.5 Population Projection: Southeast Region MAG 208 Water Quality Management Plan Update</b>					
<b>Planning Area</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>
Mesa	444,643	500,151	561,764	591,196	619,228
Tempe	166,207	172,458	176,878	183,392	185,862
Guadalupe	5,506	5,665	5,724	5,731	5,736
Chandler	171,099	199,967	223,398	242,995	261,587
Gilbert	108,688	132,978	174,856	201,616	245,440
Queen Creek	7,452	10,735	14,042	17,283	20,584
County (Sun Lakes)	13,241	15,900	18,539	22,169	26,839
<b>Total</b>	<b>916,836</b>	<b>1,037,854</b>	<b>1,175,201</b>	<b>1,264,382</b>	<b>1,365,276</b>

MAG POPTAC Population and Socioeconomic Projections, Interim Report, July 1997.

### 2.2.4 Southwest Region

The southwest region of the MAG Planning Area is comprised of the MAG member agencies of Buckeye, Goodyear, Litchfield Park, Avondale, and Tolleson. These communities are shown on Figure 2.5. Additionally, there are unincorporated areas within this region. The population projections for the southwest region are summarized in Table 2.6. This area is projected to significantly increase its share of the County total population from 2.6 percent in 2000 to 6.4 percent in 2020.

Figure 2.5 MAG Southwest Region



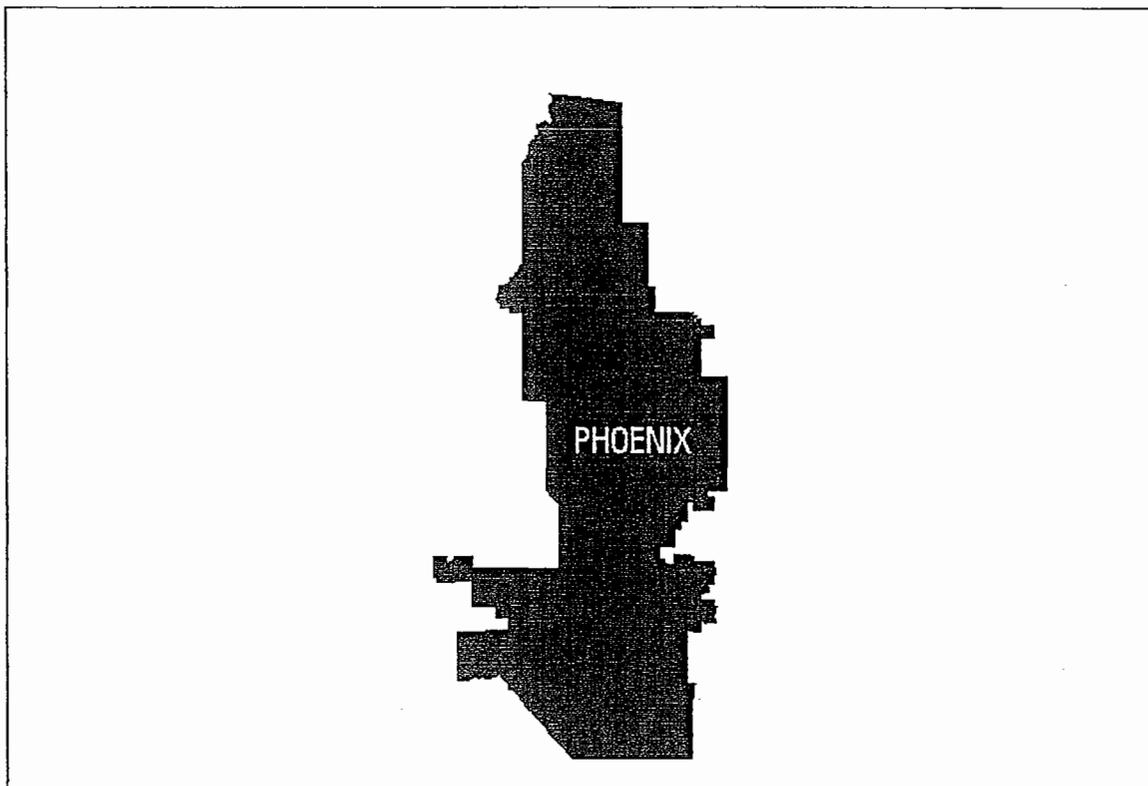
<b>Table 2.6 Population Projection: Southwest Region MAG 208 Water Quality Management Plan Update</b>					
<b>Planning Area</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>
Buckeye	18,084	22,385	28,176	51,446	82,416
Goodyear	19,939	28,504	38,425	58,712	93,396
Litchfield Park	4,942	6,583	8,519	12,629	14,778
Avondale	29,450	32,922	37,909	52,307	85,294
Tolleson	4,525	4,783	6,955	7,603	8,267
County	1,471	2,509	3,472	5,166	7,816
<b>Total</b>	<b>78,411</b>	<b>97,686</b>	<b>123,456</b>	<b>187,863</b>	<b>291,967</b>

MAG POPTAC Population and Socioeconomic Projections, Interim Report, July 1997.

### 2.2.5 Central Region

The City of Phoenix incorporated limits comprise the entire Central Region as shown on Figure 2.6. The population projections for the planning period are summarized in Table 2.7. This region is the most fully developed and populated of the five regions. The Central Region's share of the County total population is projected to decrease from 43.6 percent in 2000 to 39.4 percent in 2020. Despite the decreased share of total population, the Central Region will maintain the largest share of the total population compared to the Southeast Region over the planning horizon.

**Figure 2.6 MAG Central Region**



## **APPENDIX F – LPSCo Financial Assurances**

The financial statements in this appendix demonstrates the ability of the LPSCo to construct operate and maintain the wastewater system over its useful life.

The letter in this appendix documents the financial capability to construct the Regional Sanitary Sewer.

**ARIZONA CORPORATION COMMISSION**  
**UTILITIES DIVISION**

ANNUAL REPORT MAILING LABEL - MAKE CHANGES AS NECESSARY

SW-01428A  
Litchfield Park Service Company - Sewer  
111 W. Wigwam Blvd, Suite B  
Litchfield Park, AZ 85340

L

RECEIVED

APR 14 2005

AZ Corporation  
Phoenix, AZ 85001

**ANNUAL REPORT**

**FOR YEAR ENDING**

12	31	2004
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FOR COMMISSION USE

ANN05	04
-------	----

5 7.10.05

**Statutory Agent: C T Corporation System**

(Name)

3225 N Central Ave  
(Street)

Phoenix  
(City)

AZ  
(State)

85012  
(Zip)

(602) 277-4792

Telephone No. (Include Area Code)

Fax No. (Include Area Code)

Pager/Cell No. (Include Area Code)

**Attorney: Richard Sallquist @ Sallquist & Drummond, P.C.**

(Name)

4500 South Lake Shore Drive, Suite 339  
(Street)

Tempe,  
(City)

AZ  
(State)

85282  
(Zip)

(602) 224-9222

Telephone No. (Include Area Code)

(480) 345-0412

Fax No. (Include Area Code)

Pager/Cell No. (Include Area Code)

Please mark this box if the above address(es) have changed or are updated since the last filing.

**OWNERSHIP INFORMATION**

Check the following box that applies to your company:

- |   |  |
|---|--|
| <input type="checkbox"/> Sole Proprietor (S)    | <input checked="" type="checkbox"/> C Corporation (C) (Other than Association/Co-op) |
| <input type="checkbox"/> Partnership (P)        | <input type="checkbox"/> Subchapter S Corporation (Z)                                |
| <input type="checkbox"/> Bankruptcy (B)         | <input type="checkbox"/> Association/Co-op (A)                                       |
| <input type="checkbox"/> Receivership (R)       | <input type="checkbox"/> Limited Liability Company                                   |
| <input type="checkbox"/> Other (Describe) _____ |  |

**COUNTIES SERVED**

Check the box below for the county/ies in which you are certificated to provide service:

- |                                     |  |                                   |
|-------------------------------------|--|-----------------------------------|
| <input type="checkbox"/> APACHE     | <input type="checkbox"/> COCHISE             | <input type="checkbox"/> COCONINO |
| <input type="checkbox"/> GILA       | <input type="checkbox"/> GRAHAM              | <input type="checkbox"/> GREENLEE |
| <input type="checkbox"/> LA PAZ     | <input checked="" type="checkbox"/> MARICOPA | <input type="checkbox"/> MOHAVE   |
| <input type="checkbox"/> NAVAJO     | <input type="checkbox"/> PIMA                | <input type="checkbox"/> PINAL    |
| <input type="checkbox"/> SANTA CRUZ | <input type="checkbox"/> YAVAPAI             | <input type="checkbox"/> YUMA     |
| <input type="checkbox"/> STATEWIDE  |  |                                   |

**COMPANY NAME**

Litchfield Park Service Company

**CALCULATION OF DEPRECIATION EXPENSE**

Acct. No.	DESCRIPTION	Original Cost (1)	Depreciation Percentage (2)	Depreciation Expense (1x2)
351	Organization	-		
352	Franchises	-		
353	Land and Land Rights	1,783,426		
354	Structures and Improvements	9,077,845		294,018
355	Power Generation Equipment	305,488		12,405
360	Collection Sewers - Force	263,636		4,693
361	Collection Sewers - Gravity	14,003,065		238,486
362	Special Collecting Structures	-		
363	Services to Customers	3,454,790		68,791
364	Flow Measuring Devices	22,188		1,213
365	Flow Measuring Installations	13,378		1,115
370	Receiving Wells	855,200		28,507
380	Treatment and Disposal Equip.	4,300,202		212,836
381	Plant Sewers	23,117		1,156
382	Outfall Sewer Lines	343,681		11,456
389	Other Plant and Misc. Equipment	110,308		4,291
390	Office Furniture and Equipment	126,871		7,931
391	Transportation Equipment	225		45
393	Tools, Shop and Garage Equip.	18,746		937
394	Laboratory Equipment	84,159		8,075
395	Power Operated Equipment	1,364,823		168,261
398	Other Tangible Plant	334,219		32,701
	SUBTOTAL	36,485,366		1,096,916
	CIAC Amortization			(178,152)
	TOTALS	36,485,366		918,763

This amount goes on Comparative Statement of Income and Expense Acct. 403

**COMPANY NAME**

Litchfield Park Service Company

**BALANCE SHEET (CONTINUED)**

Acct. No.	LIABILITIES	BALANCE AT BEGINNING OF TEST YEAR	BALANCE AT END OF YEAR
<b>CURRENT LIABILITES</b>			
231	Accounts Payable	\$ 586,693	\$ 315,981
232	Notes Payable (Current Portion)	140,000	195,000
234	Notes/Accounts Payable to Associated Companies	4,482,113	8,909,278
235	Customer Deposits	220,870	236,210
236	Accrued Taxes	321,296	128,149
237	Accrued Interest	266,054	195,012
241	Miscellaneous Current and Accrued Liabilities	103,778	47,846
	<b>TOTAL CURRENT LIABILITIES</b>	<b>\$ 6,120,804</b>	<b>\$ 10,027,475</b>
<b>LONG-TERM DEBT (Over 12 Months)</b>			
224	Long-Term Notes and Bonds	\$ 12,327,420	\$ 12,161,759
<b>DEFERRED CREDITS</b>			
252	Advances in Aid of Construction	\$ 15,203,825	\$ 22,552,904
253	Other Deferred Credits		
255	Accumulated Deferred Investment Tax Credits		
271	Contributions in Aid of Construction	7,507,671	13,646,610
272	Less: Amortization of Contributions	1,283,303	1,529,632
281	Accumulated Deferred Income Tax	474,436	474,436
	<b>TOTAL DEFERRED CREDITS</b>	<b>\$ 21,902,630</b>	<b>\$ 35,144,318</b>
	<b>TOTAL LIABILITIES</b>	<b>\$ 40,350,854</b>	<b>\$ 57,333,552</b>
<b>CAPITAL ACCOUNTS</b>			
201	Common Stock Issued	\$ 78,200	\$ 78,200
211	Other Paid in Capital	14,118,180	14,118,180
215	Retained Earnings	2,892,209	4,982,635
218	Proprietary Capital (Sole Props and Partnerships)		
	<b>TOTAL CAPITAL</b>	<b>\$ 17,088,590</b>	<b>\$ 19,179,015</b>
	<b>TOTAL LIABILITIES AND CAPITAL</b>	<b>\$ 57,439,444</b>	<b>\$ 76,512,568</b>

COMPANY NAME Litchfield Park Service Company

**SUPPLEMENTAL FINANCIAL DATA**

**Long-Term Debt**

	LOAN #1	LOAN #2	LOAN #3	LOAN #4
Date Issued	04/01/1999	06/01/2001		
Source of Loan	IDA	IDA		
ACC Decision No.	61655	63775		
Reason for Loan	Capital Expansion	Capital Expansion		
Dollar Amount Issued	\$5,335,000	\$7,500,000	\$	\$
Amount Outstanding	\$4,815,000	\$7,500,000	\$	\$
Date of Maturity	10/01/2023	10/01/2031		
Interest Rate	5.88%	6.70%	%	%
Current Year Interest	\$262,887	\$435,402	\$	\$
Current Year Principle	\$140,000	\$0.00	\$	\$

COMPANY NAME Litchfield Park Service Company

**WASTEWATER COMPANY PLANT DESCRIPTION (CONTINUED)**

**COLLECTION MAINS**

**SERVICES**

Size (in inches)	Material	Length (in feet)
4"	VCP	208,097
6"	VCP	4,602
8"	VCP	908,468
10"	VCP	45,084
12"	VCP	32,021
15"	VCP	64,986
18"	VCP	17,635
21"	VCP	23,016
24"	VCP	10,480
30"	VCP	3,663

Size (in inches)	Material	Quantity
4	VCP	69,848
6	VCP	224
8	VCP	3

**FOR THE FOLLOWING FIVE ITEMS, LIST THE UTILITY OWNED ASSETS IN EACH CATEGORY**

<b>SOLIDS PROCESSING AND HANDLING FACILITIES</b>	Aerobic Digester/ Centrifuge
<b>DISINFECTION EQUIPMENT</b> (Chlorinator, Ultra-Violet, Etc.)	Ultra-Violet
<b>FILTRATION EQUIPMENT</b> (Rapid Sand, Slow Sand, Activated Carbon, Etc.)	Aqua Disk-Filter Disk
<b>STRUCTURES</b> (Buildings, Fences, Etc.)	The facility currently contains 4 steel frame buildings w/ concrete masonry unit (CMU) facia on enclosed concrete tank structures. The facility is bordered by aluminum fencing and gates.
<b>OTHER</b> (Laboratory Equipment, Tools, Vehicles, Standby Power Generators, Etc.)	1 Standby Generator, Tools, Lab Equipment, 8 Vehicles, 2 golf carts, 3 trailers

## STATISTICAL INFORMATION

Total number of customers	11,817
Total number of gallons treated	888,459,000

COMPANY NAME Litchfield Park Service Company YEAR ENDING 12/31/2004

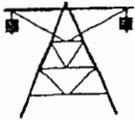
**PROPERTY TAXES**

Amount of actual property taxes paid during Calendar Year 2004 was: \$ 264,898.21

Attach to this annual report proof (e.g. property tax bills stamped "paid in full" or copies of cancelled checks for property tax payments) of any and all property taxes paid during the calendar year.

If no property taxes paid, explain why. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**LITCHFIELD PARK SERVICE COMPANY INC.**  
 111 W. Wigwam Blvd., Suite B  
 Litchfield Park, Arizona 85340  
 (623) 935-9367 X 0 Fax: (623) 935-1020 X 0000

Bank One  
 1370 N. Litchfield Road  
 Goodyear, AZ 85338

001820

DATE: September 17, 2004  
 AMOUNT: US\$137,609.35  
 U.S. Funds

One Hundred Thirty Seven Thousand Six Hundred Nine Dollars and 35 Cents

**PAY TO THE ORDER OF**  
 Maricopa County Treasurer  
 PO Box 78574  
 Phoenix, AZ 85062-8574

Litchfield Park Service Company Inc.

*[Handwritten Signature]*  
 Robert D. Davis



⑈001820⑈ ⑆22100024⑆ 00529182⑈

⑈0013760935⑈

072404 268 788 120 043 4 61507282 8 0545922404CNP

CREDIT TO ACCT OF  
 NAMED PAYEE WITH-  
 OUT PREJUDICE  
 ABSENCE OF ENDORSE-  
 MENT GUARANTEED BY  
 BANK ONE, NA

BANK ONE, NA  
 ⑈111901331⑈  
 09242004  
 5140257543

Location	Acct #	Check #	Amount	Issue Date	Paid Date	Sequence	Customer Data	Bank #
CD	529182	1820	\$137,609.35		9/24/2004	5140257543		601
GL Category	CD VolID/CIMS Key	CD Label						
000000000000	20040930523301	20040930523301						

**VERIFICATION  
AND  
SWORN STATEMENT  
Intrastate Revenues Only**

APR 14 2005

AZ - Department of Justice  
Director of CPD/ISS

**VERIFICATION**

STATE OF ARIZONA  
I, THE UNDERSIGNED  
OF THE

<b>COUNTY OF MARICOPA</b>
NAME (OWNER OR OFFICIAL) TITLE <b>Peter Kampian, Chief Financial Officer</b>
COMPANY NAME <b>Litchfield Park Service Company</b>

DO SAY THAT THIS ANNUAL UTILITY REPORT TO THE ARIZONA CORPORATION COMMISSION

FOR THE YEAR ENDING

MONTH	DAY	YEAR
12	31	2004

HAS BEEN PREPARED UNDER MY DIRECTION, FROM THE ORIGINAL BOOKS, PAPERS AND RECORDS OF SAID UTILITY; THAT I HAVE CAREFULLY EXAMINED THE SAME, AND DECLARE THE SAME TO BE A COMPLETE AND CORRECT STATEMENT OF BUSINESS AND AFFAIRS OF SAID UTILITY FOR THE PERIOD COVERED BY THIS REPORT IN RESPECT TO EACH AND EVERY MATTER AND THING SET FORTH, TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

**SWORN STATEMENT**

IN ACCORDANCE WITH THE REQUIREMENT OF TITLE 40, ARTICLE 8, SECTION 40-401, ARIZONA REVISED STATUTES, IT IS HEREIN REPORTED THAT THE GROSS OPERATING REVENUE OF SAID UTILITY DERIVED FROM ARIZONA INTRASTATE UTILITY OPERATIONS DURING CALENDAR YEAR 2004 WAS:

Arizona Intrastate Gross Operating Revenues Only (\$)
\$ <u>4,977,206</u>

(THE AMOUNT IN BOX ABOVE  
INCLUDES \$ 0  
IN SALES TAXES BILLED, OR COLLECTED)

\*\*REVENUE REPORTED ON THIS PAGE MUST INCLUDE SALES TAXES BILLED OR COLLECTED. IF FOR ANY OTHER REASON, THE REVENUE REPORTED ABOVE DOES NOT AGREE WITH TOTAL OPERATING REVENUES ELSEWHERE REPORTED, ATTACH THOSE STATEMENTS THAT RECONCILE THE DIFFERENCE. (EXPLAIN IN DETAIL)

*Peter Kampian*  
SIGNATURE OF OWNER OR OFFICIAL

908-465-8523  
TELEPHONE NUMBER

SUBSCRIBED AND SWORN TO BEFORE ME

A NOTARY PUBLIC IN AND FOR THE COUNTY OF  
THIS 11th DAY OF

COUNTY NAME	<u>Halton</u>
MONTH	<u>April</u>
<b>ANNE ELIZABETH READE</b>	

(SEAL)

MY COMMISSION EXPIRES 25 Feb '08

*Anne Elizabeth Reade*  
A COMMISSIONER OF OATHS,  
REGIONAL MUNICIPALITY OF HALTON,  
FOR ALGONQUIN POWER INCOME FUND.  
EXPIRES FEBRUARY 25, 2008.

	Actual	Prior Year
<b>ASSETS</b>		
<b>Current Assets</b>		
Plant - Operating	\$707,794	\$286,840
Plant - Capacity	10,000	10,000
Short Term Investments	1,123,763	1,156,305
Accounts Receivable	3,377,368	3,032,941
Accounts Receivable - Interco	49,500	61,230
Prepaids	64,826	60,720
<b>Total Current Assets</b>	<b>5,333,251</b>	<b>4,608,036</b>
Intercompany	(1,111,410)	226,933
<b>Long Term Assets</b>		
<b>Fixed Assets</b>		
Land	2,464,529	2,423,503
Generating Facility	65,648,839	48,890,473
Less Accum Depreciation	(7,352,680)	(5,362,125)
Water Treatment Plant	2,343,546	
Contribution in Aid of Construction	(13,646,610)	(7,507,671)
Accum Depreciation - CIAC	1,529,632	1,283,303
<b>Total Fixed Assets</b>	<b>50,987,256</b>	<b>39,727,483</b>
<b>Other Assets</b>		
Construction in Process		1,425,404
Intangible Asset - Net	8,021,830	5,370,471
Deferred Costs	382,553	428,282
<b>Total Other Assets</b>	<b>8,404,383</b>	<b>7,224,157</b>
<b>Total Assets</b>	<b>63,613,480</b>	<b>51,786,609</b>
<b>LIABILITIES</b>		
<b>Current Liabilities</b>		
Accounts Payable and Accrued Liabilities	3,683,576	1,715,606
Intercompany	188,067	
Current Taxes Payable	26,900	204,078
Franchise Tax Payable		
Current Portion of Long Term Debt	195,000	140,000
<b>Total Current Liabilities</b>	<b>4,093,543</b>	<b>2,059,684</b>
<b>Long Term Liabilities</b>		
Intercompany Notes Payable	4,589,469	4,055,000
Third Party Loans	12,491,059	12,672,019
Customer Meter Deposits	2,045,395	2,216,514
Customer Advances in Aid of Construction	20,507,510	12,987,312
Deferred Income Tax	474,436	474,436
<b>Total Long Term Liabilities</b>	<b>40,107,869</b>	<b>32,405,281</b>
<b>Total Liabilities</b>	<b>44,201,412</b>	<b>34,464,965</b>
<b>SHAREHOLDERS EQUITY</b>		
Contributed Capital	14,118,180	14,118,180
Common Shares	78,200	78,200
<b>Total Contributed Capital</b>	<b>14,196,380</b>	<b>14,196,380</b>
<b>Retainings</b>		

Consolidated Statement  
**INCOME STATEMENT**  
 For the Twelve Months Ending December 31, 2004

CURRENT MONTH					YEAR TO DATE				
Actual	Budget	Prior	% Change Budget	% Change Prior	Actual	Budget	Prior	% Change Budget	% Change Prior
<b>Revenue</b>									
<b>Water Sales</b>									
\$341,601	\$505,542	\$223,769	-32.43%	52.66%	\$3,130,317	\$5,055,833	\$2,467,517	-38.09%	26.86%
63,069	0	77,072	0.00%	-18.17%	779,867	0	601,854	0.00%	29.58%
77,014	0	57,062	0.00%	34.97%	877,647	0	670,363	0.00%	30.92%
6,517	0	7,793	0.00%	-16.37%	192,315	0	166,636	0.00%	15.41%
488,201	505,542	365,696	-3.43%	33.50%	4,980,146	5,055,833	3,906,370	-1.50%	27.49%
<b>Waste Water Sales</b>									
544,799	414,629	332,275	31.39%	63.96%	4,179,317	4,669,742	3,207,548	-10.50%	30.30%
77,280	0	46,513	0.00%	66.15%	547,718	0	503,943	0.00%	8.69%
13,247	0	8,477	0.00%	56.27%	106,201	0	16,954	0.00%	526.41%
635,326	414,629	387,265	53.23%	64.05%	4,833,236	4,669,742	3,728,445	3.50%	29.63%
<b>Reclaimed Water Sales (Effluent)</b>									
9,151	3,365	3,650	171.95%	150.71%	67,401	40,383	50,643	66.90%	33.09%
<b>Other Revenues</b>									
3,243	0	39,015	0.00%	-91.69%	183,619	0	496,633	0.00%	-63.03%
3,243	0	39,015	0.00%	-91.69%	183,619	0	496,633	0.00%	-63.03%
1,135,921	923,536	795,626	23.00%	42.77%	10,064,402	9,765,958	8,182,091	3.06%	23.01%
<b>Operating Costs</b>									
<b>Sources of Supply, Collections &amp; Expenses</b>									
359	0	0	0.00%	0.00%	1,585	0	81,185	0.00%	-98.05%
2,760	0	40,447	0.00%	-93.18%	300,538	0	361,581	0.00%	-16.88%
0	0	21	0.00%	-100.00%	0	0	265	0.00%	-100.00%
1,263	0	0	0.00%	0.00%	5,569	0	1,880	0.00%	196.22%
823	0	619	0.00%	32.96%	21,481	0	12,131	0.00%	77.08%
80,369	50,000	54,693	60.74%	46.95%	996,784	600,003	460,286	66.13%	116.56%
0	0	0	0.00%	0.00%	6,097	0	0	0.00%	0.00%
686	0	0	0.00%	0.00%	8,988	0	0	0.00%	0.00%
86,260	50,000	95,780	72.52%	-9.94%	1,341,042	600,003	917,328	123.51%	46.19%
<b>Water Treatment &amp; Pumping Expenses</b>									
0	0	0	0.00%	0.00%	0	0	1,971	0.00%	-100.00%
0	0	0	0.00%	0.00%	7,029	0	726	0.00%	868.18%
0	0	0	0.00%	0.00%	0	0	1,871	0.00%	-100.00%
0	0	0	0.00%	0.00%	1,647	0	0	0.00%	0.00%
0	0	0	0.00%	0.00%	8,676	0	4,568	0.00%	89.93%
<b>Transportation &amp; Distr, Treatment &amp; Disposal Exp</b>									
89,870	42,577	0	111.08%	0.00%	741,561	510,928	27	45.14%	*****
22	0	0	0.00%	0.00%	233	0	0	0.00%	0.00%
10,666	0	0	0.00%	0.00%	141,352	0	3,734	0.00%	3685.54%
8,565	2,990	1,575	186.45%	443.81%	157,476	35,875	28,454	338.96%	453.44%
18,448	42,079	1,944	-56.16%	848.97%	393,209	504,947	32,491	-22.13%	1110.21%

For the Twelve Months Ending December 31, 2004

CURRENT MONTH					YEAR TO DATE					
Actual	Budget	Prior	% Change Budget	% Change Prior		Actual	Budget	Prior	% Change Budget	% Change Prior
					<b>Administrative &amp; General Costs</b>					
\$2,070	\$0	\$1,861	0.00%	11.23%	Telephone	\$12,017	\$0	\$20,662	0.00%	-41.84%
664	14,350	7,695	-95.37%	-91.37%	Materials & Supplies	17,783	172,200	70,805	-89.67%	-74.88%
78,695	104,125	203,158	-24.42%	-61.26%	Contractual Services	1,059,601	1,249,495	1,086,651	-15.20%	-2.49%
3,588	6,013	6,842	-40.33%	-47.56%	Rentals-Building & Equipment	27,259	72,160	66,674	-62.22%	-59.12%
0	0	0	0.00%	0.00%	Security	874	0	113	0.00%	673.45%
1,984	0	(1,669)	0.00%	-218.87%	Transportation Expenses	23,242	0	20,507	0.00%	13.34%
0	0	2,316	0.00%	-100.00%	Meals & Entertainment	0	0	5,379	0.00%	-100.00%
6,967	171	7,446	3974.27%	-6.43%	Licences & Fees	71,968	2,050	22,756	3410.63%	216.26%
0	0	120	0.00%	-100.00%	Public Relations	805	0	5,750	0.00%	-86.00%
0	0	0	0.00%	0.00%	Charitable Donations	235	0	350	0.00%	-32.86%
6,256	6,200	13,241	0.90%	-52.75%	Insurance	81,256	74,400	65,837	9.22%	23.42%
23,067	20,073	19,580	14.92%	17.81%	Property Taxes	248,932	240,875	234,754	3.34%	6.04%
2,519	0	0	0.00%	0.00%	Central Office Costs	41,561	0	0	0.00%	0.00%
1,095	0	1,331	0.00%	-17.73%	Bank Charges	29,491	0	28,827	0.00%	2.30%
0	0	0	0.00%	0.00%	Capacity Costs	0	0	35,836	0.00%	-100.00%
<u>126,905</u>	<u>150,932</u>	<u>261,921</u>	<u>-15.92%</u>	<u>-51.55%</u>	<b>Total Administrative &amp; General Costs</b>	<u>1,615,024</u>	<u>1,811,180</u>	<u>1,664,901</u>	<u>-10.83%</u>	<u>-3.00%</u>
<u>781,815</u>	<u>626,502</u>	<u>323,052</u>	<u>24.79%</u>	<u>142.01%</u>	<b>Net Income Before Depn, Interest &amp; Tax</b>	<u>5,490,329</u>	<u>6,201,550</u>	<u>4,376,201</u>	<u>-11.47%</u>	<u>25.46%</u>
					<b>Interest</b>					
92,211	65,222	91,626	41.38%	0.64%	Interest	1,040,009	782,665	829,691	32.88%	25.35%
<u>92,211</u>	<u>65,222</u>	<u>91,626</u>	<u>41.38%</u>	<u>0.64%</u>	<b>Total Interest</b>	<u>1,040,009</u>	<u>782,665</u>	<u>829,691</u>	<u>32.88%</u>	<u>25.35%</u>
					<b>Depreciation / Amortization</b>					
178,238	144,799	134,325	23.09%	32.69%	Amortization	1,978,366	1,737,590	1,633,199	13.86%	21.13%
<u>178,238</u>	<u>144,799</u>	<u>134,325</u>	<u>23.09%</u>	<u>32.69%</u>	<b>Total Depreciation &amp; Amortization</b>	<u>1,978,366</u>	<u>1,737,590</u>	<u>1,633,199</u>	<u>13.86%</u>	<u>21.13%</u>
					<b>Income Taxes</b>					
30,000	0	(221,434)	0.00%	-113.55%	Income Taxes	360,000	0	77,430	0.00%	364.94%
<u>30,000</u>	<u>0</u>	<u>(221,434)</u>	<u>0.00%</u>	<u>-113.55%</u>	<b>Total Income Taxes</b>	<u>360,000</u>	<u>0</u>	<u>77,430</u>	<u>0.00%</u>	<u>364.94%</u>
					<b>Other Income and Expense</b>					
(2,378)	0	0	0.00%	0.00%	Other Income and Expense	11,526	0	111	0.00%	*****
<u>(2,378)</u>	<u>0</u>	<u>0</u>	<u>0.00%</u>	<u>0.00%</u>	<b>Total Other Income and Expense</b>	<u>11,526</u>	<u>0</u>	<u>111</u>	<u>0.00%</u>	<u>10283.78%</u>
<u>483,744</u>	<u>416,481</u>	<u>318,535</u>	<u>16.15%</u>	<u>51.87%</u>	<b>Net Income</b>	<u>2,100,428</u>	<u>3,681,295</u>	<u>1,835,770</u>	<u>-42.94%</u>	<u>14.42%</u>



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LITCHFIELD PARK SERVICE COMPANY

---

111 W. WIGWAM BLVD., SUITE B

LITCHFIELD PARK, AZ 85340

(623) 938-9367

March 15, 2005

Michele Kogl, Development Services Manager  
Gerald Toscano, Senior Engineer  
Maricopa County DOT  
2901 W. Durango St.  
Phoenix, AZ 85009

**Re: Financial Assurance for Jackrabbit Estates, Savannah, and Zanjero Trails  
Subdivisions**

Dear Ms. Kogl & Mr. Toscano,

This letter is presented by Litchfield Park Service Company (LPSCO) to advise you that the owners of the parcels comprising the Jackrabbit Estates, Savannah, and Zanjero Trails subdivisions have posted satisfactory assurance to LPSCO of the financial capability and intent to complete all off-site or back bone infrastructure necessary to make sewer service available to the subdivisions. This demonstration was performed by the owners of the above listed planned subdivisions by way of the establishment of an escrow account with First American Title Insurance Company (escrow number 402-44311106) and deposit therein of cash and letters of credit in the amount of \$5,395,428.77, the sum of which is of sufficient magnitude to finance the cost of design and construction of those necessary facilities. These funds will not be released back to the owners until MCDOT is satisfied with the completion of the project, nor will these funds be used for purposes other than the design and construction of the facilities. LPSCO will be responsible for construction of said facilities in the event of default by the Developers.

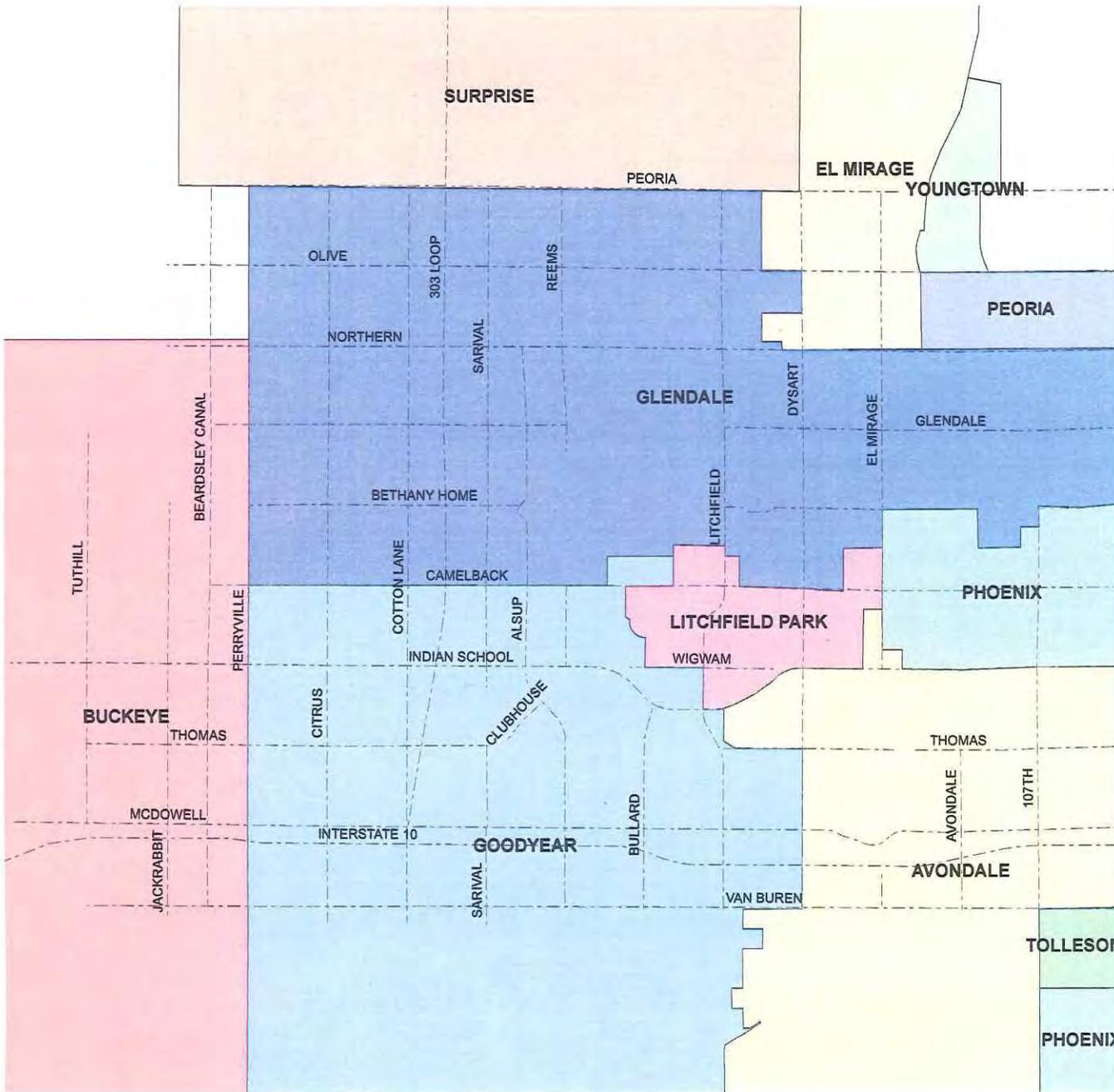
I hope that this letter meets your needs and requirements. Should you have any questions or require additional information, please do not hesitate to contact me at your convenience.

Sincerely,

A handwritten signature in black ink that reads "Michael D. Weber". The signature is written in a cursive, flowing style.

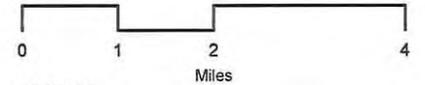
Michael D. Weber, P.E.  
Vice President & General Manager

# EXHIBITS



**Wood/Patel**

Civil Engineers  
Hydrologists  
Land Surveyors  
Construction Managers



11/08/05

**Legend**

--- Alignments

**Municipal Planning Areas**

- AVONDALE
- BUCKEYE
- EL MIRAGE
- GLENDALE
- GOODYEAR
- LITCHFIELD PARK
- PEORIA
- PHOENIX
- SURPRISE
- TOLLESON
- YOUNGTOWN

Northwest Valley Development Group  
MAG 208 Amendment for LPSCo  
Wood Patel & Associates, Job # 042027

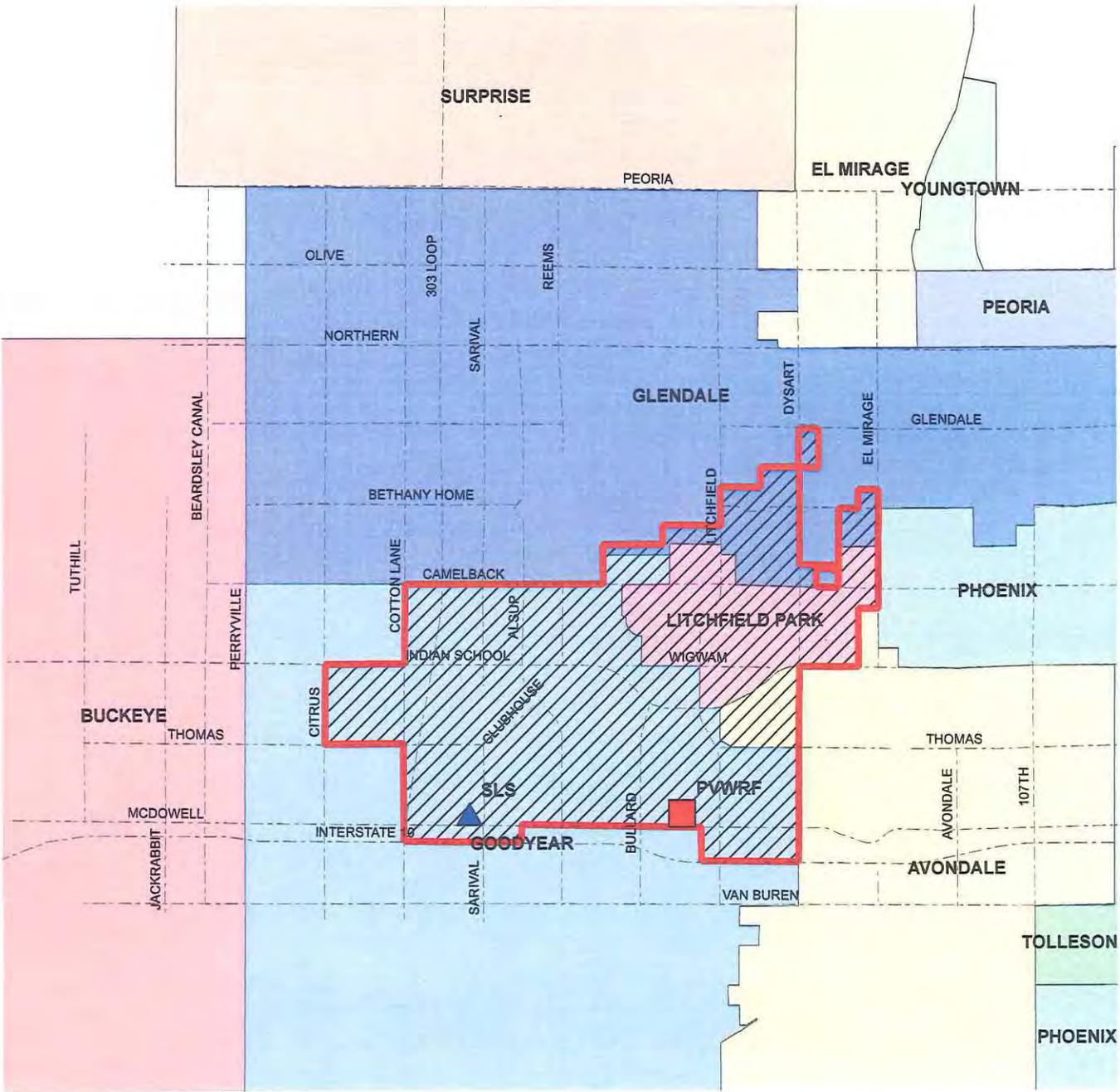
**Project Area**  
Exhibit 1

**Wood/Patel**

Civil Engineers  
Hydrologists  
Land Surveyors  
Construction Managers



11/08/05



**Legend**

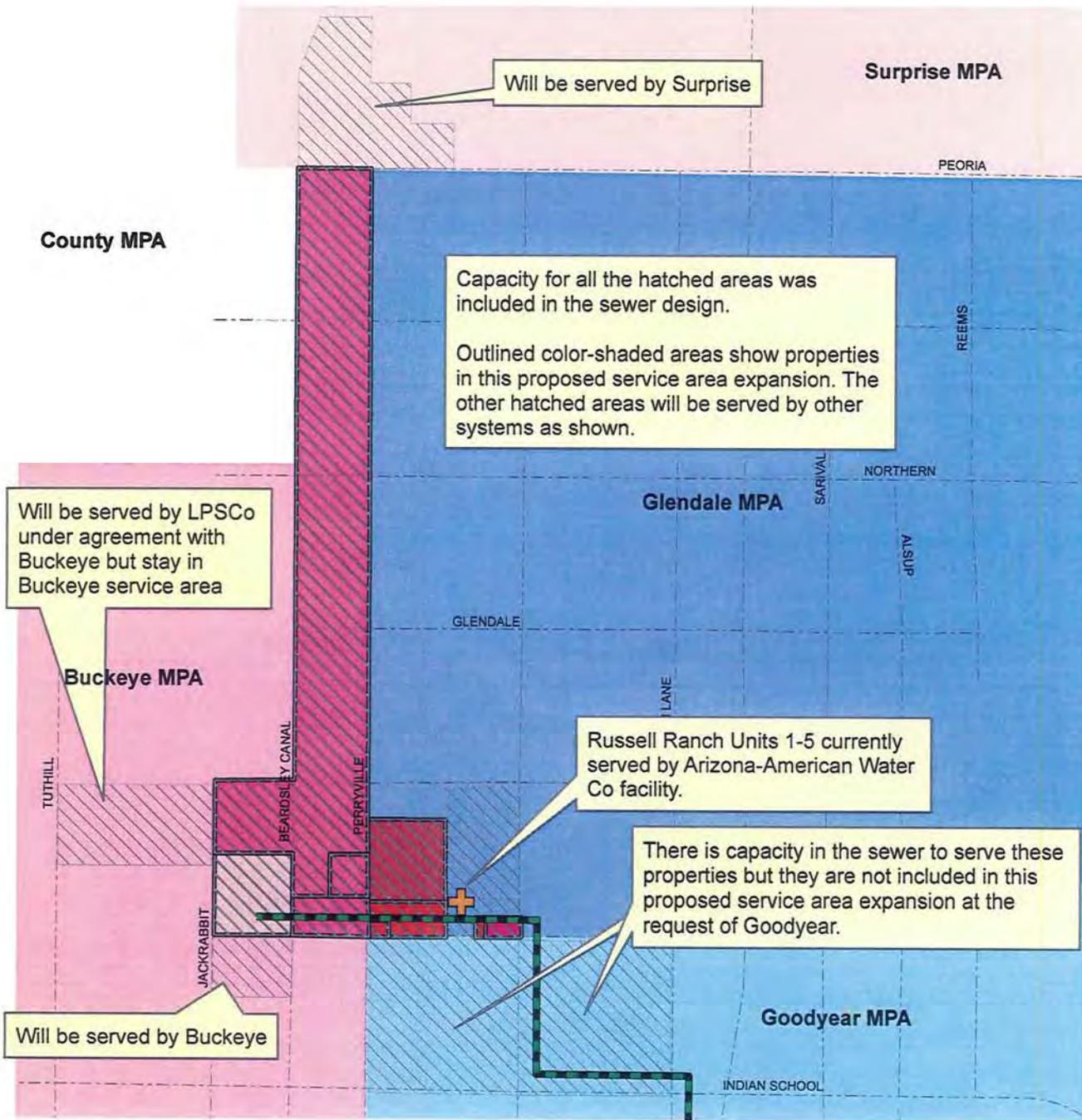
- Alignments
- Sewer Service area**
- Existing
- Facilities**
- PWWRF
- SLS
- Municipal Planning Areas**
- AVONDALE
- BUCKEYE
- EL MIRAGE
- GLENDALE
- GOODYEAR
- LITCHFIELD PARK
- PEORIA
- PHOENIX
- SURPRISE
- TOLLESON
- YOUNGTOWN

Northwest Valley Development Group  
MAG 208 Amendment for LPSCo  
Wood Patel & Associates, Job # 042027

Base data provided by LPSCo  
from Draft Wastewater Master Plan,  
Carollo Engineers

**Existing LPSCo Service Area  
Exhibit 2**





Will be served by Surprise

Surprise MPA

County MPA

Capacity for all the hatched areas was included in the sewer design.  
 Outlined color-shaded areas show properties in this proposed service area expansion. The other hatched areas will be served by other systems as shown.

Will be served by LPSCo under agreement with Buckeye but stay in Buckeye service area

Buckeye MPA

Russell Ranch Units 1-5 currently served by Arizona-American Water Co facility.

There is capacity in the sewer to serve these properties but they are not included in this proposed service area expansion at the request of Goodyear.

Will be served by Buckeye

Goodyear MPA

**Wood/Patel**  
 Civil Engineers  
 Hydrologists  
 Land Surveyors  
 Construction Managers

11/15/05

**Legend**

- Wastewater Facilities
- Alignments
- Regional Sanitary Sewer

**Properties**

- BRADLEY CENTER
- JACKRABBIT ESTATES
- RUSSELL RANCH
- SAVANNAH
- ZANJERO TRAILS
- Capacity provided for in sewer design

Northwest Valley Development Group  
 MAG 208 Amendment for LPSCo  
 Wood Patel & Associates, Job # 042027

**Properties Served  
 By This Expansion**  
 Exhibit 4

**APPENDIX B**  
Letters of No Objection  
(Sent to Julie Hoffman)



City of  
**Avondale**

**Water Resources Department**  
399 East Lower Buckeye Road, Suite 100  
Avondale, Arizona 85323  
Phone: (623) 333-4400  
Fax: (623) 333-0440  
TDD: (623) 333-0010  
Website: [www.avondale.org](http://www.avondale.org)

April 28, 2011

Ms. Julie Hoffman  
208 Program Manager  
Maricopa Association of Governments  
302 N 1st Ave, Ste 300  
Phoenix, AZ 85003

Dear Ms. Hoffman:

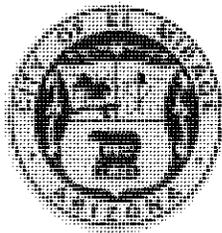
This letter is in response to the City of Glendale's (on behalf of Liberty Water Company) Clean Water Act Section 208 Amendment that will modify their wastewater service area. The modification is outside the City of Avondale service area but within three miles of it as shown in the current 208 Plan. The City of Avondale has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment. If you have questions or need additional information you may contact me at 623-333-4400.

Sincerely,

Wayne Janis  
Public Works Director





**CITY OF EL MIRAGE  
PUBLIC WORKS DEPARTMENT**

12145 NW GRAND AVENUE

EL MIRAGE, AZ 85335

PHONE: 623-933-8318

FAX: 623-935-6184

May 2, 2011

Ms. Julie Hoffman  
208 Program Manager  
Maricopa Association of Governments  
302 N 1st Ave, Ste 300  
Phoenix, AZ 85003

Dear Ms. Hoffman:

The City of Glendale (on behalf of Liberty Water Company) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for the City of El Mirage but within three miles of it as shown in the current 208 Plan. The City of El Mirage has reviewed the proposed amendment and has no objection.

Sincerely

A handwritten signature in black ink, appearing to read "David J. Emon".

David J. Emon

Utilities Superintendent

cc: Lance Calvert, Director of Public Works



April 28, 2011

Ms. Julie Hoffman  
208 Program Manager  
Maricopa Association of Governments  
302 N 1st Ave, Ste 300  
Phoenix, AZ 85003

Dear Ms. Hoffman:

The City of Glendale (on behalf of Liberty Water Company) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for the City of Goodyear but within three miles of it as shown in the current 208 Plan. The City of Goodyear has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely,

City of Goodyear

Charles McDowell  
Public Works Director

Cc: Sandra Rode, Water Conservation Specialist  
Jerald A. Postema, Deputy Director, Environmental Services  
File

**Public Works Department**  
4980 South 157<sup>th</sup> Avenue • PO Box 5100 Goodyear, AZ 85338  
623-932-3010 • Fax 623-882-7588 • [www.goodyearaz.gov](http://www.goodyearaz.gov)



# City of Litchfield Park

Office of the City Manager

October 4, 2011

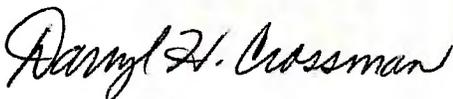
Ms. Julie Hoffman  
208 Program Manager  
Maricopa Association of Governments  
302 N 1st Ave | Ste 300  
Phoenix, AZ 85003

Dear Ms. Hoffman:

The City of Glendale (on behalf of Liberty Water Company) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for the City of Litchfield Park but within three miles of it as shown in the current 208 Plan attached. The City of Litchfield Park has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely,

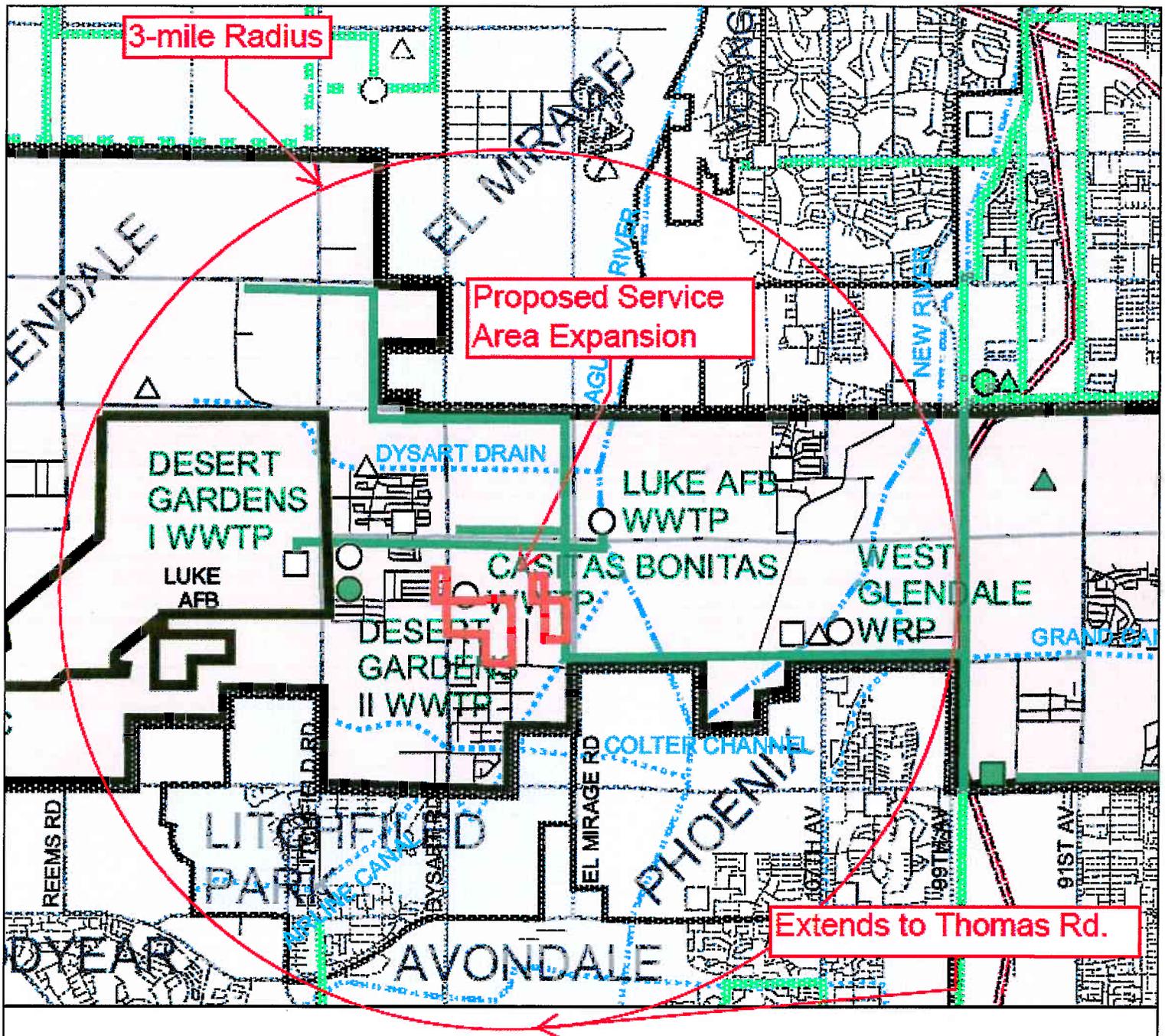


Darryl H. Crossman  
City Manager

Attachment: Map of Proposed Service Area Expansion

cc: Mayor Thomas L. Schoaf (w/attachment)  
Members of Council (w/attachment)

S:\DOCS\MAG\Clean Water Act - City of Glendale - No Objection 10.4.11.doc



**Rob Bryant, PE**  
Water Works Engineers  
8840 E Chaparral Rd, #280  
Scottsdale, AZ 85250  
Cell: [602-909-8191](tel:602-909-8191)  
eFax: [815-301-6586](tel:815-301-6586)  
[robb@wwengineers.com](mailto:robb@wwengineers.com)  
[www.wwengineers.com](http://www.wwengineers.com)



DEPARTMENT OF THE AIR FORCE  
56TH CIVIL ENGINEER SQUADRON (AETC)  
LUKE AIR FORCE BASE, ARIZONA

7 Feb 12

Lt Col Chad BonDurant  
56 CES/CC  
13970 Gillespie Drive  
Luke AFB, AZ 85309

Ms. Julie Hoffman  
208 Program Manager  
Maricopa Association of Governments  
302 N 1st Ave, Ste 300  
Phoenix, AZ 85003

Dear Ms. Hoffman:

The City of Glendale (on behalf of Liberty Water Company) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for Luke Air Force Base but within three miles of it as shown in the current 208 Plan. Luke Air Force Base has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely

  
CHAD B. BONDURANT, Lt Col, USAF



# Maricopa County

Environmental Services  
Water and Waste Management Division

1001 N. Central Ave., Suite 150  
Phoenix, AZ 85004  
Phone: (602) 506-6666  
Fax: (602) 506-6925  
TDD: 602 506 6704  
[www.maricopa.gov/envsvc](http://www.maricopa.gov/envsvc)

August 8, 2012

Maricopa Association of Governments  
302 North 1<sup>st</sup> Avenue, Suite 300  
Phoenix, AZ 85003

Attention: Ms. Lindy Bauer, Environmental Program Coordinator

Re: Litchfield Park Service Company dba Liberty Water, Revised Service Area  
**Clean Water Act, MAG 208 Amendment**

Dear Ms. Bauer:

Water Works Engineers, LLC, has submitted a proposed MAG 208 Amendment Application dated June 23, 2011, with revisions that were submitted to the Department on July 23, 2012. The proposed Amendment is for an expansion of the Litchfield Park Service Company (LPSCo) dba Liberty Water service area to include four separate parcels of land that are south of W. Glendale Avenue and west of N. El Mirage Road. The expansion creates an approximate 360-acre island of unsewered property (north of Camelback Road between Dysart Road and 127<sup>th</sup> Avenue) that will be completely surrounded by the expanded LPSCo dba Liberty Water service area. The City of Glendale provided a letter dated June 7, 2012 stating that it would support LPSCo dba Liberty Water providing sewer service to the island in the event the property owners request such service.

The document was submitted to the Department because the project is located within three miles of unincorporated areas of Maricopa County. The City of Avondale, City of El Mirage, City of Goodyear, City of Litchfield Park, Luke Air Force Base, City of Peoria, City of Phoenix, Town of Youngtown, are also located within three miles of the LPSCo dba Liberty Water Municipal Planning Area.

The proposed service area revision complies with the MAG 208 Review and Approval Process under the MAG 208 Areawide Water Quality Management Plan. The project is not in conflict with Maricopa County plans for the area and it is acceptable.

Please note that the Department has not reviewed, nor approved, the design of the facilities as part of the 208 review. Any technical issues that remain will need to be resolved during the design phase of the project. Approval to Construct (ATC) and Approval of Construction (AOC) must be obtained from this Department prior to start of construction and startup, respectively, of all treatment, discharge, recharge, and reuse facilities, including all conveyance facilities and final end user facilities.

August 8, 2012  
Ms. Lindy Bauer  
MAG 208 Amendment Application for  
Litchfield Park Service Company dba Liberty Water, Revised Service Area  
Page 2 of 2

If you have any questions or comments, please feel free to contact Mr. Kenneth James,  
PE, at 602-506-6414 or me at 602-506-6667.

Sincerely,

A handwritten signature in black ink that reads "Kevin S Chadwick". The signature is written in a cursive style with a large, stylized 'K' and 'C'.

Kevin Chadwick, P.E.,  
Division Manager

cc: Rob Bryant, PE, Water Works Engineers, 7580 N. Dobson Road, Suite 200,  
Scottsdale, AZ 85256  
Utilities Division - Engineering Section, Arizona Corporation Commission,  
1200 W. Washington, Phoenix, AZ 85007-2996  
File



## City of Peoria

### *Public Works- Utilities Department*

8401 West Monroe Street, Peoria, Arizona 85345

Ph: 623-773-7286 Fax: 623-773-7291

April 27, 2011

Ms. Julie Hoffman  
208 Program Manager  
Maricopa Association of Governments  
302 N. 1<sup>st</sup> Ave., Ste. 300  
Phoenix, AZ 85003

Dear Ms. Hoffman:

The City of Glendale (on behalf of Liberty Water Company) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for the City of Peoria but within three miles of it as shown in the current 208 Plan. The City of Peoria has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian K. Biesemeyer".

Brian K. Biesemeyer, P.E.  
Deputy Public Works – Utilities Director

cc: Michael Weber, Deputy Utilities Director, City of Glendale  
Rob Bryan, P.E., Water Works Engineer



**City of Phoenix**  
Water Services Department  
Environmental Services Division

May 10, 2011

Ms. Julie Hoffman  
208 Program Manager  
Maricopa Association of Governments  
302 N 1st Ave, Ste 300  
Phoenix, AZ 85003

Dear Ms. Hoffman:

The City of Glendale (on behalf of Liberty Water Company) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for the City of Phoenix but within three miles of it as shown in the current 208 Plan. The City of Phoenix has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely,

A handwritten signature in black ink, appearing to read "Randy Gottler".

Randy Gottler  
Deputy Water Services Director

C: Neil Mann, Water Services Director  
Ron Serio, Assistant Water Services Director  
Tom Walz, Deputy Water Services Director  
Kevin Rose, Deputy Water Services Director  
Kris Erickson, Assistant to the Water Superintendent



**Town of Youngtown**  
12030 N. Clubhouse Square  
Youngtown Arizona 85363-1212

**Mark Hannah**  
Public Works Manager  
Loss Control · Risk Manager  
Emergency Services Manager

e-mail: mhannah@youngtownaz.org

April 27, 2011

Ms. Julie Hoffman  
208 Program Manager  
Maricopa Association of Governments  
302 N 1st Avenue, Suite 300  
Phoenix, AZ 85003

Dear Ms. Hoffman:

The City of Glendale (on behalf of Liberty Water Company) has submitted a Clean Water Act Section 208 Amendment that will modify wastewater service areas that are outside the service area for the Town of Youngtown but within three miles of it as shown in the current 208 Plan. The Town of Youngtown has reviewed the proposed amendment and has no objection.

We look forward to working with you and appreciate your assistance to facilitate the MAG approval process for this 208 Amendment.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Hannah".

Mark Hannah  
Public Works Manager

**Office:** 623-933-8286 **Fax:** 623-933-5951 **Police:** 623-974-3665 **Court:** 623-972-8226 **TDD:** 623-974-3665

Youngtown is a *Fair-Housing Community*



**APPENDIX C**  
208 Clean Water Act Checklist

208 AMENDMENT CHECKLIST

Section 208 Clean Water Act

40 CFR Part 130.6

REQUIREMENT	PROVIDE BRIEF SUMMARY OF HOW REQUIREMENTS ARE ADDRESSED	ADDRESSED ON PAGE:
<p><u>AUTHORITY</u></p> <p>Proposed Designated Management Agency (DMA) shall self-certify that it has the authorities required by Section 208(c)(2) of the Clean Water Act to implement the plan for its proposed planning and service areas. Self-certification shall be in the form of a legal opinion by the DMA or entity attorney.</p>	<p>The City of Glendale is the Designated Management Agency for the expanded service area. However, Glendale has agreed to allow Liberty Water to provide sewer service to this area. Liberty Water has adequate authority to perform the functions enumerated in the Clean Water Act Section 208(c)(2)(A)-(I).</p>	<p>Glendale letters at front of document and Appendix E</p>
<p><u>20-YEAR NEEDS</u></p> <p><i>{Clearly describe the existing wastewater treatment (WWT) facilities:}</i></p> <p>Describe existing WWT facilities.</p>	<p>These are described in the February 2006 - 208 Amendment</p>	<p>Appendix A</p>
<p>Show WWT certified and service areas for private utilities and sanitary district boundaries if appropriate.</p>	<p>The service area extension proposed by Liberty will not overlap with any WWT certified and service areas for private utilities and sanitary district boundaries.</p>	<p>Figure 1, Page 4</p>
<p><i>{Clearly describe alternatives and the recommended WWT plan:}</i></p> <p>Provide POPTAC population estimates (or COG-approved estimates only where POPTAC not available) over 20-year period.</p>	<p>Buildout populations (756) were included in the development documents associated with platting and results in 0.099MGD of total WW flow.</p>	<p>Page 8-9</p>

Provide wastewater flow estimates over the 20-year planning period.	Based on 100 gpcd (Glendale utilizes 97 gpcd), estimated wastewater flow from this new service area is 99,000gpd.	Page 9
Illustrate the WWT planning and service areas.	In addition to the existing service area, the expanded area is located within Secs 10 and 11, T2N,R1W.	Figure 1, Page 4
Describe the type and capacity of the recommended WWT Plant.	This expanded service area will not require the existing plant to increase capacity.	Page 7
Identify water quality problems, consider alternative control measures, and recommend solution for implementation.	No water quality issues are expected as a result of this service area expansion. See 2006 208 Amendment for treatment methods.	Appendix A
If private WWT utilities with certificated areas are within the proposed regional service area, define who (municipal or private utility) serves what area and when. Identify whose sewer lines can be approved in what areas and when?	LPSCo dba Liberty Water will own and operate the sewer lines in the proposed service area.	Page 10
Describe method of effluent disposal and reuse sites (if appropriate).	Effluent will continue to be discharged to the RID and may be stored in golf course lakes for irrigation and may be recharged.	Appendix A
If Sanitary Districts are within a proposed planning or service area, describe who serves the Sanitary Districts and when.	LPSCo dba Liberty Water will own and operate the sewer lines in the proposed service area.	Page 10
Describe ownership of land proposed for plant sites and reuse areas.	Plant ownership by LPSCo dba Liberty Water will continue per February 2006 208 Amendment.	Appendix A
Address time frames in the development of the treatment works.	Palm Valley WRF current permit is 5.1MGD.	Page 5

Address financial constraints in the development of the treatment works.	Not Applicable.	Not Applicable
Describe how discharges will comply with EPA municipal and industrial stormwater discharge regulations (Section 405, CWA).	Site-specific stormwater will be retained onsite for up to 100-yr storm events.	Appendix A
Describe how open areas & recreational opportunities will result from improved water quality and how those will be used.	The use of high quality effluent for irrigation will reduce the demand for groundwater and promote open area irrigation with reclaimed effluent.	Appendix A
Describe potential use of lands associated with treatment works and increased access to water-based recreation, if applicable.	Not Applicable.	Not Applicable
<u>REGULATIONS</u> Describe types of permits needed, including NPDES, APP and reuse.	None required for the service area expansion. A Permit to Construct will be obtained for the sanitary sewer from MCESD.	Page 9
Describe restrictions on NPDES permits, if needed, for discharge and sludge disposal.	The treated municipal wastewater point discharge from the facilities will be used for emergency only and will not be for daily operations.	Appendix A
Provide documentation of communication with ADEQ Permitting Section 30 to 60 days prior to public hearing regarding the need for specific permits.	Not Applicable, No additional permits required.	Not Applicable
Describe pretreatment requirements and method of adherence to requirements (Section 208 (b)(2)(D), CWA).	Raw wastewater is expected to be nearly 100% residential & light commercial. Industrial service connections will be required to comply with all pretreatment requirements.	Appendix A
Identify, if appropriate, specific pollutants that will be produced from excavations and procedures that will protect ground and surface water quality (Section 208(b)(2)(K) and Section 304, CWA).	Not Applicable.	Not Applicable.

Describe alternatives and recommendation in the disposition of sludge generated. (Section 405 CWA)	This amendment will not affect treatment in any way - only service area.	Page 11
Define any nonpoint issues related to the proposed facility and outline procedures to control them.	Not applicable, new sewer service will discharge to existing LPSCo dba Liberty Water collection system and ultimately discharge at the WWTP.	Not Applicable
Describe process to handle all mining runoff, orphan sites and underground pollutants, if applicable.	Not applicable, no mining in the service area.	Not Applicable
If mining related, define where collection of pollutants has occurred, and what procedures are going to be initiated to contain contaminated areas.	Not applicable, no mining in the service area.	Not Applicable
If mining related, define what specialized procedures will be initiated for orphan sites, if applicable.	Not applicable, no mining in the service area.	Not Applicable
<u>CONSTRUCTION</u> Define construction priorities and time schedules for initiation and completion.	Sanitary sewer facilities will be constructed as needed by developers.  Sewer facilities will be	Page 10
Identify agencies who will construct, operate and maintain the facilities and otherwise carry out the plan.	constructed by developers, LPSCo dba Liberty Water will own and operate the sewer lines in the proposed service area.	Page 10
Identify construction activity-related sources of pollution and set forth procedures and methods to control, to the extent feasible, such sources.	Storm water runoff will be controlled via SWPPP and dust will be controlled per MCESD dust control permit.	Page 10
<u>FINANCING AND OTHER MEASURES NECESSARY TO CARRY OUT THE PLAN</u> If plan proposes to take over certificated private utility, describe how, when and financing will be managed.	LPSCo dba Liberty Water will own and operate the sewer lines in the proposed service area once constructed by developers.	Page 10

Describe any significant measure necessary to carry out the plan, e.g., institutional, financial, economic, etc.	None	Not Applicable
Describe proposed method(s) of community financing.	Sewer facilities will be constructed by developers, user rates will be imposed to pay for collection and treatment O&M costs.	Page 10
Provide financial information to assure DMA has financial capability to operate and maintain wastewater system over its useful life.	LPSCo dba Liberty Water has provided their current financial statements.	Appendix D
Provide a time line outlining period of time necessary for carrying out plan implementation.	The collection system will be constructed by developers as needed in this area.	Page 10
Provide financial information indicating the method and measures necessary to achieve project financing. (Section 201 CWA or Section 604 may apply.)	Sewer facilities will be constructed by developers, user rates will be imposed to pay for collection and treatment O&M costs.	Page 10
<p><u>IMPLEMENTABILITY</u></p> <p><i>Describe impacts and implementability of Plan:</i></p> <p>Describe impacts on existing wastewater (WW) facilities, e.g., Sanitary district, infrastructure/facilities and certificated areas.</p>	Existing and planned facilities of LPSCo dba Liberty Water have the capacity to serve this additional area.	Page 7
Describe how and when existing package plants will be connected to a regional system.	Not Applicable	Not Applicable
Describe the impact on communities and businesses affected by the plan.	No significant impact	Not Applicable

<p>If a municipal wastewater (WWT) system is proposed, describe how WWT service will be provided until the municipal system is completed: i.e., will package plants and septic systems be allowed and under what circumstances. (Interim services).</p>	<p>Not Applicable</p>	<p>Not Applicable</p>
<p><u>PUBLIC PARTICIPATION</u></p> <p>Submit copy of mailing list used to notify the public of the public hearing on the 208 amendment. (40 CFR, Chapter 1, Part 25.5)</p>	<p>Public participation will be satisfied through the MAG 208 Plan Amendment Process.</p>	<p>Page 11</p>
<p>List location where documents are available for review at least 30 days before public hearing.</p>	<p>Public participation will be satisfied through the MAG 208 Plan Amendment Process.</p>	<p>Page 11</p>
<p>Submit copy of the public notice of the public hearing as well as an official affidavit of publication from the area newspaper. Clearly show the announcement appeared in the newspaper at least 45 days before the hearing.</p>	<p>Public participation will be satisfied through the MAG 208 Plan Amendment Process.</p>	<p>Page 11</p>
<p>Submit affidavit of publication for official newspaper publication.</p>	<p>Public participation will be satisfied through the MAG 208 Plan Amendment Process.</p>	<p>Page 11</p>
<p>Submit responsiveness summary for public hearing.</p>	<p>Public participation will be satisfied through the MAG 208 Plan Amendment Process.</p>	<p>Page 11</p>

**APPENDIX D**  
LPSCo dba Liberty Water Financial Assurance



12725 West Indian School Road  
Ste. D101  
Avondale, AZ  
85392

**Tel:** 623-935-9367  
**Fax:** 623-935-1020

June 27, 2011

Ms. Julie Hoffman  
208 Program Manager  
Maricopa Association of Governments  
302 N 1st Ave, Ste 300  
Phoenix, AZ 85003

Dear Ms. Hoffman,

Litchfield Park Service Company d.b.a. Liberty Water has submitted a Clean Water Act Section 208 Amendment that will modify the wastewater service areas that are currently outside of the current 208 plan. Of the areas considered for incorporation into our system, Liberty Water currently provides sewer service for the following:

1. Capistrano North (all infrastructure is complete, all lots have homes on them).
2. Capistrano South (all infrastructure is complete, all lots have homes on them).
3. Dysart Ranch (all infrastructure is complete, all lots have homes on them).
4. Dysart Village (all infrastructure is complete, not all lots have homes on them).
5. Dysart Crossings (all infrastructure is complete, retail commercial center is operating).
6. Bethany Estates South (all infrastructure is complete, lots are preparing to have home construction to start).
7. Heritage Elementary School (all infrastructure is complete).

Liberty Water does not provide sewer service to the following areas, however we currently have available capacity at the Palm Valley Water Reclamation Facility to treat the sewer flows and the operational and financial capability to operate and maintain the future sewer lines associated with the developments shown below. Financing for the construction of the associated sewer lines is the responsibility of the developer.

1. Bethany Estates North (development is partially complete).
2. Falcon View (platted only, no infrastructure installed).
3. Riverside Estates (only 2.7 acres developed of 22 acre parcel).
4. 21 acre parcel owned by RP Palm Valley LLC (Parcel 501-56-011G).

Sincerely,

Matthew Garlick  
Business Manager  
Liberty Water

# LITCHFIELD PARK SERVICE COMPANY

## STATEMENTS OF OPERATIONS YEARS ENDED DECEMBER 31, 2010 AND 2009

	2010	2009
UTILITY OPERATIONS:		
Operating revenues:		
Water	\$ 7,261,076	\$ 7,185,001
Sewer	7,160,789	6,683,425
Total operating revenues	<u>14,421,865</u>	<u>13,868,426</u>
Cost of revenues		
Water	2,497,125	2,817,012
Sewer	2,588,179	2,968,990
Total cost of revenues	<u>5,085,305</u>	<u>5,786,002</u>
GROSS MARGIN	<u>9,336,560</u>	<u>8,082,424</u>
OPERATING EXPENSES:		
Depreciation and amortization	4,143,147	4,101,348
Outside services	3,759,460	2,219,449
Operating fees / salaries and benefits	520,791	520,791
Other taxes	575,531	620,947
General and administrative	449,892	449,446
Rent	4,251	23,704
Other	9,257	75,550
Total Operating Expenses	<u>9,462,330</u>	<u>8,011,235</u>
NET OPERATING INCOME	<u>(125,770)</u>	<u>71,189</u>
OTHER INCOME (EXPENSE):		
Interest income	10,834	-
Interest expense	<u>(742,592)</u>	<u>(795,422)</u>
Total Other Expense	<u>(731,758)</u>	<u>(795,422)</u>
NET INCOME (LOSS) BEFORE INCOME TAX	<u>(857,528)</u>	<u>(724,233)</u>
Income taxes	<u>(324,722)</u>	<u>(82,586)</u>
NET INCOME (LOSS)	<u>\$ (532,806)</u>	<u>\$ (641,647)</u>

# LITCHFIELD PARK SERVICE COMPANY

## BALANCE SHEETS DECEMBER 31, 2010 AND 2009 (in United States Dollars)

ASSETS	2010	2009
<b>UTILITY PLANT</b>		
Utility plant in service	\$ 120,322,083	\$ 115,468,282
Less accumulated depreciation and amortization	<u>23,220,193</u>	<u>19,116,663</u>
Total	97,101,890	96,351,619
Construction work-in-progress	<u>1,610,228</u>	<u>3,053,228</u>
Utility plant - net	<u>98,712,118</u>	<u>99,404,847</u>
<b>RESTRICTED CASH</b>	<u>1,464,113</u>	<u>1,467,397</u>
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	17,029	-
Accounts receivable	3,029,150	1,409,159
Prepaid expenses	<u>128,550</u>	<u>388,141</u>
Total current assets	<u>3,174,730</u>	<u>1,797,300</u>
<b>REGULATORY ASSETS:</b>	507,432	503,548
Deferred income tax asset	51,848	-
<b>TOTAL ASSETS</b>	<u>\$ 103,910,241</u>	<u>\$ 103,173,092</u>
<b>LIABILITIES AND CAPITALIZATION</b>		
<b>CURRENT LIABILITIES</b>		
Bank Overdraft	-	446,066
Accounts payable	1,817,494	5,723,847
Accrued liabilities	852,676	888,209
Meter deposits-current portion	592,207	537,909
Developer advances - current portion	348,000	348,000
Long-term debt -current portion	<u>270,000</u>	<u>255,000</u>
Total current liabilities	<u>3,880,376</u>	<u>8,199,031</u>
<b>LONG-TERM DEBT</b>	<u>10,301,564</u>	<u>10,545,441</u>
<b>OTHER LONG-TERM LIABILITIES:</b>		
Meter deposits	1,167,240	1,431,325
Deferred income taxes	0	344,680
Developer advances	<u>40,376,719</u>	<u>33,935,467</u>
Total other long-term liabilities	<u>41,543,959</u>	<u>35,711,472</u>
<b>CAPITALIZATION:</b>		
Common stock, \$10 par value - authorized, 500,000 shares; issued and outstanding, 7,820 shares	\$ 78,200	\$ 78,200
Paid-in-capital	42,631,163	42,631,163
Retained earnings	<u>5,474,979</u>	<u>6,007,785</u>
Total capitalization	<u>48,184,342</u>	<u>48,717,148</u>
<b>TOTAL LIABILITIES &amp; CAPITALIZATION</b>	<u>\$ 103,910,241</u>	<u>\$ 103,173,092</u>

**APPENDIX E**  
DMA Functions for MAG 208 Plan Amendment



January 24, 2012

Ms. Linda Taunt  
Arizona Department of Environmental Quality  
1110 West Washington Street  
Phoenix, AZ 85007

RE: Designated Management Agency (DMA) Functions for MAG's 208 Plan Amendment with Litchfield Park Service Company dba Liberty Water, herein referred to as LPSCO

Dear Ms. Taunt:

For the purpose of satisfying Section 208(c)(2)(A) through Section 208(c)(2)(I) of the Clean Water Act, the intent of this correspondence is to demonstrate how Litchfield Park Service Company (LPSCO), a private utility, can provide wastewater services and act similar to a DMA. Below are the required functions of a DMA, as well as the authority by which LPSCO can serve the functions of a DMA.

**FUNCTION (Section 208(c)(2)(A) -Carry out appropriate portions of an area wide waste treatment management plan developed under Section 208(b) of the Clean Water Act.**

**AUTHORITY - LPSCO is a public service corporation formed for the purpose of providing water and wastewater utility services for all of the City of Litchfield Park and portions of Avondale, Buckeye, Glendale, Goodyear and unincorporated Maricopa County. LPSCO last received approval of its area wide treatment management plan by the Maricopa Association of Governments, the Designated Planning Agency, through the MAG Regional Council approval on February 17, 2006. For the area to be added to LPSCO's MAG 208 Amendment which is associated with this letter, LPSCO received approval by the Arizona Corporation Commission to add this area to its CC&N per Docket #SW-01428A-06-0021, Decision #68744 dated June 5, 2006.**

**FUNCTION (Section 208( c )(2)(B) -Manage effectively waste treatment works and related facilities serving an area in conformance with any plan required by Section 208(b) of the Clean Water Act.**

**AUTHORITY -LPSCO has a 4.1 million gallons per day (MGD) wastewater treatment facility that has been in operation since February 2001. Future expansions will be constructed in phases as wastewater flows increase in the service area. LPSCO is approved to provide service up to 16.4 MGD per the MAG 208.**

**To effectively manage the treatment facility, LPSCO employs certified operators that are appropriately trained in accordance with Arizona Department of Environmental Quality (ADEQ) and the Arizona Division of Occupational Safety and Health requirements.**

**The mechanism in place to effectuate this management is the: LPSCO Employee Manual, LPSCO Health and Safety Procedures Manual, LPSCO Safety Loss Control Procedures Manual, LPSCO Standard Operating Procedures, LPSCO approved Tariff, and the administrative codes and revised statutes of the State of Arizona and local ordinances. These rules and regulations are enforceable per the authority granted to sewer utilities established under Title 14, Chapter 2, and Article 6 of the Arizona Administrative Code.**

**LPSCO does advise and refer to applicable agencies when issues or violations arise. If persons within LPSCO's Certificate of Convenience & Necessity (CC&N) do not receive timely service, they may file a complaint with the Arizona Corporation Commission, LPSCO's regulator, to address their concerns.**

**FUNCTION (Section 208( c)(2)(C) Directly or by contract, design and construct new works, and operate and maintain new and existing works as required by any plan developed pursuant to Section 208(b) of the Clean Water Act.**

**AUTHORITY** -LPSCO has a 2006 Wastewater Master Plan for its service area. The 2006 Wastewater Master Plan projects a build out flow of 15.6 MGD for the service area.

LPSCO has completed Phase 1 of its current wastewater facility. This phase has been operational since February 2001. Currently, LPSCO is proceeding with planning and permitting to construct 1 MGD of additional capacity at the existing wastewater facility. The additional capacity is anticipated to come on line by the end of year 2012. The current facility location is approved to carry an 8.2 MGD facility. Future phasing of the current facility will follow demand constraints. LPSCO also has a second separate planned facility to be built to handle an additional 8.2 MGD to be constructed in phases, for a total MAG 208 approval of 16.4 MGD.

All operators, agents and employees of LPSCO, including all employees and agents of contractors and/or subcontractors operating or constructing the wastewater treatment facilities, will be certified and trained, as necessary, in accordance with ADEQ and the Arizona Division of Occupational Safety and Health requirements.

**FUNCTION (Section 208(c)(2)(D) -Accept and utilize grants, or other funds from any source, for waste treatment management purposes.**

**AUTHORITY** - LPSCO, as a corporation formed for the purpose of providing water and wastewater utility service, has the express authority to accept and utilize grants, loans and/or other funds from any source for waste treatment management purposes. LPSCO may accept and utilize loans only if they are approved by the Arizona Corporation Commission.

**FUNCTION (Section 208(c)(2)(E) -Raise revenues, including the assessment of waste treatment charges.**

**AUTHORITY** –Per LPSCO's current Tariff (Decision #72682 on November 17, 2011) approved by the Arizona Corporation Commission, These Tariffs set LPSCO's current wastewater rates that it charges its ratepayers within its CC&N. These rates can be adjusted per the rules and regulations of Arizona Corporation Commission.

**FUNCTION (Section 208(c)(2)(F)) -Incur short-and long-term indebtedness.**

**AUTHORITY** - LPSCO is a corporation formed for the purpose of providing wastewater utility service. LPSCO can obtain debt with Arizona Corporation Commissions approval. In addition, LPSCO is a wholly owned subsidiary of Algonquin Power and Utilities Corporation (a publicly traded company on the Toronto Stock Exchange) who may elect to provide equity to LPSCO.

**FUNCTION (Section 208(c)(2)(G)) -Assure in implementation of an area wide waste treatment management plan that each participating community pays its proportionate share of treatment costs.**

**AUTHORITY** –Per Arizona Corporation Commission Decision #72026 (December 10, 2010) and Decision #72682 (November 17, 2011), LPSCO has approved rates to be charged to each rate payer throughout its service territory.

**FUNCTION (Section 208(c)(2)(H)) -Refuse to receive any wastes from any municipality or subdivision thereof, which does not comply with any provisions of an approved plan under Section 208 of the Clean Water Act applicable to such area.**

**AUTHORITY** -In accordance with R14-2-603.C.2 and R-14-2-609 of the Arizona Administrative Code, LPSCO, as an approved utility, may refuse to establish service or terminate service.

**FUNCTION (Section 208(c)(2)(I)) -Accept for treatment industrial wastes.**

AUTHORITY – The Code of Federal Regulations Part 403 Section 403.8 states “any Publicly Owned Treatment Works (POTW) with a total design flow of 5 million gallons per day and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards, will be required to establish a pretreatment program.” The existing 4.1 MGD Palm Valley Water Reclamation Facility (PVWRF) is not currently required to comply with pretreatment requirements since it is not a Publicly Owned Treatment Works. However, LPSCO is in the process of developing a pretreatment program that will be implemented before flows approach 5 MGD or significant industrial users are accepted into the sewer collection system. The pretreatment program will be developed with the industrial user being subject to pretreatment standards as regulated by the Environmental Protection Agency (EPA).

Based upon the information presented above, I certify, as a director of the company, that LPSCO can fully perform the functions of a DMA for the service area shown in the current MAG 208 Amendment. I also certify that LPSCO, functioning as a DMA, has the legal, institutional, managerial and financial capability necessary to carry out its responsibilities of an area wide waste treatment management plan.

Sincerely,



Gregory Sorensen  
Vice President of Service Delivery  
Liberty Water

cc:

Julie Hoffman -Maricopa Association of Governments

**APPENDIX F**

Certificate of Convenience and Necessity Documents from ACC

ORIGINAL



0000104505

RECEIVED  
2009 NOV -2 P 2:44  
ARIZONA CORPORATION COMMISSION  
DOCKET CENTER

1 FENNEMORE CRAIG, P.C.  
2 Jay L. Shapiro (014650)  
3 Patrick J. Black (017141)  
4 3003 N. Central Ave.  
5 Suite 2600  
6 Phoenix, Arizona 85012  
7 Attorneys for Litchfield Park Service Company

BEFORE THE ARIZONA CORPORATION COMMISSION

8 IN THE MATTER OF THE APPLICATION  
9 OF LITCHFIELD PARK SERVICE  
10 COMPANY FOR AN EXTENSION OF ITS  
11 CERTIFICATE OF CONVENIENCE AND  
12 NECESSITY TO PROVIDE  
13 WASTEWATER SERVICE IN MARICOPA  
14 COUNTY, ARIZONA.

DOCKET NO. SW-01428A-06-0021

NOTICE OF COMPLIANCE WITH  
DECISION NO. 68744

15 Litchfield Park Service Company ("LPSCO" or "Company") hereby files this  
16 Notice of Compliance in the above captioned matter. In Decision No. 68744 (June 5,  
17 2006), the Commission ordered LPSCO to file, among other things: (1) copies of  
18 Certificates of Approval to Construct ("ATC") to serve the parcels included in the  
19 extended service area; (2) a copy of its amended Aquifer Protection Permit; and (3) an  
20 amended Section 208 Plan that indicates approval of the Company's expansion of its  
21 wastewater treatment plant from 4.1 MGD to 8.2 MGD.

22 Attached hereto as Exhibit 1 are the ATCs for the following properties included in  
23 the extension granted by Decision No. 68744:

- 24 1. Bethany Estates South
- 25 2. Bethany Estates North
- 26 3. Riverside Estates
- 4. Falcon View
- 5. Dysart Village

Arizona Corporation Commission  
DOCKETED

NOV - 2 2009

DOCKETED BY [Signature]

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6. Dysart Crossing

Attached hereto as Exhibit 2 is the Company's amended Aquifer Protection Permit dated September 30, 2008. Attached hereto as Exhibit 3 is the Executive Summary from the August 28, 2000 MAG 208 Plan Amendment, which includes authorization for LPSCO to construct a regional wastewater treatment facility ("WTF") with a capacity of up to 8.2 MGD. As noted on page 9 of the Executive Summary, since 2000 the WTF has been scheduled to be constructed in two 4.1 MGD phases.

RESPECTFULLY SUBMITTED this 2<sup>nd</sup> day of November, 2009.

FENNEMORE CRAIG, P.C.

By   
Jay L. Shapiro  
Patrick J. Black  
3003 N. Central Avenue, Suite 2600  
Phoenix, AZ 85012  
(602) 916-5346  
Attorneys for Litchfield Park Service Company

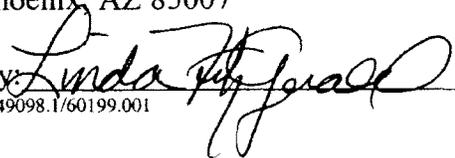
An ORIGINAL and 13 copies of the foregoing was filed this 2<sup>nd</sup> day of November, 2009 with:

Docket Control  
Arizona Corporation Commission  
1200 West Washington  
Phoenix, AZ 85007

COPY hand-delivered this 2<sup>nd</sup> day of November, 2009 to:

Kevin Torrey  
Legal Division  
Arizona Corporation Commission  
1200 West Washington  
Phoenix, AZ 85007

Marlin Scott Jr., Utilities Division  
Arizona Corporation Commission  
1200 West Washington  
Phoenix, AZ 85007

By   
2249098.1/60199.001

# **EXHIBIT 1**

ENVIRONMENTAL SERVICES  
DEPARTMENT  
1001 N. Central, Ste 150  
Phoenix, AZ 85004-1940



Division of Water and Waste Management  
Subdivision Infrastructure & Planning Program  
(602) 506-8676  
FAX (602) 506-5813

Approval Date: 10/12/05

MCESD Project No. 052683  
SYSTEM: LPSCO

**CERTIFICATE OF APPROVAL TO CONSTRUCT  
(WITH STIPULATIONS)  
and  
PROVISIONAL VERIFICATION OF GENERAL PERMIT CONFORMANCE  
SEWAGE DISPOSAL SYSTEM EXTENSION**

**PROJECT DESCRIPTION:** Bethany Estates South - sanitary sewer collection system of approximately 4141 linear feet with a point of connection to the LPSCO sewer system.

**LOCATION:** Maricopa County  
Section 11, T2N, R1W

**PROJECT OWNER:** Tim Goodrich, Land Acquisition Project Manager  
Maracay Homes  
15160 N. Hayden, Suite 200  
Scottsdale, AZ 85260

Pursuant to Arizona Administrative Code (AAC) Title 18: Chapter 9, Article 3 and the Maricopa County Environmental Health Code: Chapters II.

Approval to construct the above described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department is hereby given subject to the following stipulations: **None**

Operation of this sewer collection system project shall not begin until an Approval of Construction and Verification of General Permit Conformance is issued by the Maricopa County Environmental Services Department.

**WATER AND WASTE MANAGEMENT DIVISION**

By Steven G. Boret  
**Steven G. Boret, PE, Program Manager**  
Subdivision Infrastructure & Planning Program

*From the approval date noted above this certificate will expire, if construction has not substantially started within one year or if no Approval OF Construction has been received within two years showing verification of completion.*

ENVIRONMENTAL SERVICES  
DEPARTMENT  
1001 N. Central, Ste 150  
Phoenix, AZ 85004-1940



Division of Water and Waste Management  
Subdivision Infrastructure & Planning Program  
(802) 508-6875  
FAX (802) 508-5813

Approval Date: 1/4/07

MCESD Project No. 066570  
SYSTEM: LPSCO

**CERTIFICATE OF APPROVAL TO CONSTRUCT  
(WITH STIPULATIONS)  
and  
PROVISIONAL VERIFICATION OF GENERAL PERMIT CONFORMANCE  
SEWAGE DISPOSAL SYSTEM EXTENSION**

**PROJECT DESCRIPTION:** Bethany Estates North - sanitary sewer collection system of approximately 4,614 linear feet with a point of connection to the LPSCO sewer system.

**LOCATION:** Maricopa County  
Section 11, T2N, R1W

**PROJECT OWNER:** Tony Widowski, Project Manager  
Maracay Bethany Estates, LLC  
15160 North Hayden Road, Suite 200  
Scottsdale, AZ 85260

Pursuant to Arizona Administrative Code (AAC) Title 18: Chapter 9, Article 3 and the Maricopa County Environmental Health Code: Chapters II.

Approval to construct the above described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department is hereby given subject to the following stipulations: None

Operation of this sewer collection system project shall not begin until an Approval of Construction and Verification of General Permit Conformance is issued by the Maricopa County Environmental Services Department.

**WATER AND WASTE MANAGEMENT DIVISION**

By Wesley A. Shoner  
Wesley A. Shoner, PE, Program Manager  
Subdivision Infrastructure & Planning Program

*From the approval date noted above this certificate will expire, if construction has not substantially started within one year or if no Approval OF Construction has been received within two years showing verification of completion.*

ENVIRONMENTAL SERVICES  
DEPARTMENT  
1001 N. Central, Ste 150  
Phoenix, AZ 85004-1940



Division of Water and Waste Management  
Subdivision Infrastructure & Planning Program  
(602) 508-8875  
FAX (602) 508-8813

Approval Date: 6/14/07

MCESD Project No. 060512  
SYSTEM: LPSCO

**CERTIFICATE OF APPROVAL TO CONSTRUCT  
(WITH STIPULATIONS)  
And  
PROVISIONAL VERIFICATION OF GENERAL PERMIT CONFORMANCE  
SEWAGE DISPOSAL SYSTEM EXTENSION**

**PROJECT DESCRIPTION:** Riverside Estates - onsite - sanitary sewer collection system of approximately 4590 linear feet with a point of connection to the LPSCO sewer system.

**LOCATION:** Maricopa County  
Section 11, T2N, R1W

**PROJECT OWNER:** Perry Mathis, President  
Maryland 40, LLC  
5108 North 40<sup>th</sup> Street, Suite 3  
Phoenix, AZ 85018

Pursuant to Arizona Administrative Code (AAC) Title 18: Chapter 9, Article 3 and the Maricopa County Environmental Health Code: Chapters II.

Approval to construct the above described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department is hereby given subject to the following stipulations: **None**

Operation of this sewer collection system project shall not begin until an Approval of Construction and Verification of General Permit Conformance is issued by the Maricopa County Environmental Services Department.

**WATER AND WASTE MANAGEMENT DIVISION**

By Wesley A. Shoner  
Wesley A. Shoner, PE, Program Manager  
Subdivision Infrastructure & Planning Program

*From the approval date noted above this certificate will expire, if construction has not substantially started within one year or if no Approval OF Construction has been received within two years showing verification of completion.*

ENVIRONMENTAL SERVICES  
DEPARTMENT  
1001 N. Central, Ste 150  
Phoenix, AZ 85004-1940



Division of Water and Waste Management  
Subdivision Infrastructure & Planning Program  
(602) 508-8875  
FAX (602) 508-8813

Approval Date: 6/14/07

MCESD Project No. 060513  
SYSTEM: LPSCO

**CERTIFICATE OF APPROVAL TO CONSTRUCT  
(WITH STIPULATIONS)**

And

**PROVISIONAL VERIFICATION OF GENERAL PERMIT CONFORMANCE  
SEWAGE DISPOSAL SYSTEM EXTENSION**

**PROJECT DESCRIPTION:** Riverside Estates - offsite - sanitary sewer collection system of approximately 1507 linear feet with a point of connection to the LPSCO sewer system.

**LOCATION:** Maricopa County  
Section 11, T2N, R1W

**PROJECT OWNER:** Perry Mathis, President  
Maryland 40, LLC  
5108 North 40<sup>th</sup> Street, Suite 3  
Phoenix, AZ 85018

Pursuant to Arizona Administrative Code (AAC) Title 18: Chapter 9, Article 3 and the Maricopa County Environmental Health Code: Chapters II.

Approval to construct the above described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department is hereby given subject to the following stipulations: **None**

Operation of this sewer collection system project shall not begin until an Approval of Construction and Verification of General Permit Conformance is issued by the Maricopa County Environmental Services Department.

**WATER AND WASTE MANAGEMENT DIVISION**

By Wesley A. Shonerd  
Wesley A. Shonerd, PE, Program Manager  
Subdivision Infrastructure & Planning Program

*From the approval date noted above this certificate will expire, if construction has not substantially started within one year or if no Approval OF Construction has been received within two years showing verification of completion.*

SERVICES

al, Ste 150  
85004-1940



Division of Water and Waste Management  
Subdivision Infrastructure & Planning Program  
(602) 808-6671  
FAX (602) 808-5871

Approval Date: 9/6/07

MCESD Project No. 063234  
SYSTEM: LPSCO

**CERTIFICATE OF APPROVAL TO CONSTRUCT  
(WITH STIPULATIONS)  
And  
PROVISIONAL VERIFICATION OF GENERAL PERMIT CONFORMANCE  
SEWAGE DISPOSAL SYSTEM EXTENSION  
Supersedes Issue Date 8/14/06**

**PROJECT DESCRIPTION:** Falcon View (Offsite 64 Lot) - sanitary sewer collection system of approximately 4900 linear feet with a point of connection to the LPSCO sewer system.

**LOCATION:** Maricopa County  
Section 11, T2N, R1W

**PROJECT OWNER:** Robert Stewart Land Development Manager  
Maracay Homes  
15160 N Hayden Road Suite 200  
Scottsdale, AZ 85260

~~Pursuant to Arizona Administrative Code (AAC) Title 18: Chapter 9, Article 3 and the Maricopa County Environmental Health Code: Chapters II.~~

Approval to construct the above described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department is hereby given subject to the following stipulations: None

Operation of this sewer collection system project shall not begin until an Approval of Construction and Verification of General Permit Conformance is issued by the Maricopa County Environmental Services Department.

WATER AND WASTE MANAGEMENT DIVISION

By T. S. Shoner  
Wesley A. Shoner, PE, Interim Program Manager  
Subdivision Infrastructure & Planning Program

ENVIRONMENTAL SERVICES  
DEPARTMENT  
1001 N. Central, Ste 150  
Phoenix, AZ 85004-1940



Division of Water and Waste Management  
Subdivision Infrastructure & Planning Program  
(602) 508-8876  
FAX (602) 508-8813

Approval Date: 10/20/05

MCESD Project No. 054032  
SYSTEM: Algonquin Water Services

**CERTIFICATE OF APPROVAL TO CONSTRUCT  
(WITH STIPULATIONS)  
and  
PROVISIONAL VERIFICATION OF GENERAL PERMIT CONFORMANCE  
SEWAGE DISPOSAL SYSTEM EXTENSION**

**PROJECT DESCRIPTION:** Dysart Village - sanitary sewer collection system of approximately 3600 linear feet with a point of connection to the Algonquin Water Services sewer system.

**LOCATION:** Maricopa County  
Section 11, T2N, R1W

**PROJECT OWNER:** Ernie Lucke, President  
Adobe West Construction, Inc.  
P.O. Box 8088  
Glendale, AZ 85312

Pursuant to Arizona Administrative Code (AAC) Title 18: Chapter 9, Article 3 and the Maricopa County Environmental Health Code: Chapters II.

Approval to construct the above described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department is hereby given subject to the following stipulations:

- **MCESD will not issue an Approval of Sanitary Facilities for Subdivisions for Dysart Village until LPSCO is granted the CC&N expansion by the Arizona Corporation Commission to serve this development.**

Operation of this sewer collection system project shall not begin until an Approval of Construction and Verification of General Permit Conformance is issued by the Maricopa County Environmental Services Department.

**WATER AND WASTE MANAGEMENT DIVISION**

By   
**Steven G. Borst, PE, Program Manager**  
Subdivision Infrastructure & Planning Program

*From the approval date noted above this certificate will expire, if construction has not substantially started within one year or if no Approval OF Construction has been received within two years showing verification of completion.*

ENVIRONMENTAL SERVICES  
DEPARTMENT  
1001 N. Central, Ste 150  
Phoenix, AZ 85004-1940



Division of Water and Waste Management  
Subdivision Infrastructure & Planning Program  
(602) 506-8675  
FAX (602) 506-5813  
(TTN) (602) 506-6704

Approval Date: 4/27/04

MCESD Project No. 044338  
SYSTEM: LPSCO

**CERTIFICATE OF APPROVAL TO CONSTRUCT  
(WITH STIPULATIONS)  
and  
PROVISIONAL VERIFICATION OF GENERAL PERMIT CONFORMANCE  
SEWAGE DISPOSAL SYSTEM EXTENSION**

**PROJECT DESCRIPTION:** Dysart Crossings - sanitary sewer collection system of approximately 200 linear feet with a point of connection to the LPSCO sewer system.

**LOCATION:** Maricopa County  
Section 10, T2N, R1W

**PROJECT OWNER:** Eric Courter, Project Manager  
RDB Development  
1617 W. Williams  
Phoenix, AZ 85027

Pursuant to Arizona Administrative Code (AAC) Title 18: Chapter 9, Article 3 and the Maricopa County Environmental Health Code: Chapters II.

Approval to construct the above described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department is hereby given subject to the following stipulations: **None**

Operation of this sewer collection system project shall not begin until an Approval of Construction and Verification of General Permit Conformance is issued by the Maricopa County Environmental Services Department.

**WATER AND WASTE MANAGEMENT DIVISION**

By Steven G. Borst  
**Steven G. Borst, PE, Program Manager**  
Subdivision Infrastructure & Planning Program

*From the approval date noted above this certificate will expire, if construction has not substantially started within one year or if no Approval OF Construction has been received within two years showing verification of completion.*

OLU  
ENGINEER

# **EXHIBIT 2**



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.azdeq.gov



Stephen A. Owens  
Director

September 30, 2008

Matthew Garlick  
Litchfield Park Service Company  
12725 W Indian School Rd, Suite D101  
Avondale, AZ 85392

**Re: Litchfield Park Service Company – Palm Valley Water Reclamation Facility (WRF)  
Aquifer Protection Permit (APP) Other Amendment  
Inventory No. 100310, LTF No. 47746**

Dear Mr. Garlick:

Enclosed is a signed copy of an APP Other Amendment with Fact Sheet for the above referenced facility. The permit conditions shall apply from September 30, 2008, which is the date of the Water Quality Division Director's signature, and shall be valid for the life of the facility. Thank you for your cooperation in protecting the water quality of the State of Arizona.

If you have any questions please feel free to call me at (800) 234-5677 ext. 771-4498, or at (602) 771-4498. You can also contact me by email at [rm4@azdeq.gov](mailto:rm4@azdeq.gov).

Sincerely,

*Bob Manley*

Bob Manley, Project Manager  
APP and Reuse Unit I  
Groundwater Section, Water Quality Division

cc: Asif Majeed, Supervisor, Groundwater Section, APP and Reuse Unit I  
Parhana Jesmin, Groundwater Section, APP and Reuse Unit I – Letter Only  
Marcy Mullins, Groundwater Section, Reuse Program Coordinator – Letter Only  
Lynne Dekarske, Groundwater Section, Administrative Unit  
Cynthia Campbell, Manager, Water Quality Compliance Section  
Matthew Hodge, Supervisor, Water Quality Compliance Section, Data Unit  
Marcia Colquitt, Supervisor, Water Quality Compliance Section, Compliance Assurance Unit  
John Gibbons, Supervisor, Water Quality Compliance Section, Field Services Unit  
Gary Harmon, Inspector, Water Quality Compliance Section, Field Services Unit  
John Matta, P.E., WaterWorks Engineers  
Sheba Hafiz, WaterWorks Engineers  
Maricopa County Department of Planning and Development  
Maricopa County Environmental Services Department

WRR08:0512

Northern Regional Office  
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001  
(928) 779-0313

Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

**STATE OF ARIZONA  
AQUIFER PROTECTION PERMIT NO. P-100310  
PLACE ID 815, LTF 47746**

**1.0 AUTHORIZATION**

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A.A.C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, Litchfield Park Service Company (LPSCO) is hereby authorized to operate the Palm Valley Water Reclamation Facility, located at 14222 West McDowell Road in Goodyear, Arizona, in Maricopa County, over groundwater of the West Salt River Valley basin in the Phoenix Active Management Area, in Township 2 N, Range 1 W, Section 33, SE $\frac{1}{4}$ , SW $\frac{1}{4}$ , SW $\frac{1}{4}$  of the Gila and Salt River Baseline and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

**1.1 PERMITTEE INFORMATION**

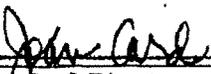
**Facility Name:** Palm Valley Water Reclamation Facility  
**Facility Address:** 14222 West McDowell Road  
Goodyear, Arizona 85338  
Maricopa County

**Permittee:** Litchfield Park Service Company  
**Permittee Address:** 12725 West Indian School Road, Suite D101  
Avondale, Arizona 85392

**Facility Contact:** Mr. Matthew Garlick  
**Emergency Phone No.:** (623) 935-3065

**Latitude/Longitude:** 33° 27' 55" N/112° 21' 55" W  
**Legal Description:** Township 02N, Range 01W, Section 33, SE $\frac{1}{4}$ , SW $\frac{1}{4}$ , SW $\frac{1}{4}$  of the Gila and Salt River Baseline and Meridian

**1.2 AUTHORIZING SIGNATURE**

  
\_\_\_\_\_  
Joan Card, Director  
Water Quality Division  
Arizona Department of Environmental Quality

Signed this 30th day of September 2008

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

Litchfield Park Service Company (LPSCO) is authorized to operate the Palm Valley Water Reclamation Facility (WRF), a 4.1 million gallons per day (mgd) facility. The maximum average monthly flow at full build-out, to be completed as per Section 3.0, Compliance Schedule, is 8.2 mgd. The WRF process consists of an influent lift station, headworks with fine screens and grit removal, anoxic reactor/equalization tank and sequencing batch reactors (SBRs) for nitrification-denitrification, disc filters, an ultraviolet (UV) disinfection system, aerobic sludge digesters, and sludge dewatering centrifuges. The WRF is designed and constructed according to plans approved by ADEQ.

Effluent shall be used for on-site process water applications (such as equipment cleaning), reused for any allowable use under a valid reclaimed water permit (A.A.C. R18-9, Article 7), or discharged to the Roosevelt Irrigation District (RID) canal under a valid AZPDES permit. Discharges to the canal are exempt from APP requirements pursuant to A.R.S. § 49-250(B)(6) and (16). Sludge shall be aerobically digested and dewatered onsite by a centrifuge process. The dewatered sludge, including screenings, grit, and scum, shall be hauled off-site for management and disposal in accordance with State and Federal regulations.

The depth to groundwater is approximately 120 feet below ground surface and the direction of groundwater flow is towards the west-northwest.

The site includes the following permitted discharging facilities:

Wastewater Reclamation Facility	33° 27' 55" N	112° 21' 55" W
---------------------------------	---------------	----------------

Amendment Description

This amendment reflects changes to the design of the facility. Palm Valley WRF has been modified by replacing the influent screens, installing a new odor control system, converting two aerobic digester tanks into Sequencing Batch Reactors (SBRs), converting existing Autothermal Thermophilic Aerobic Digestion (ATAD) tanks into sludge holding tanks, replacing a waste activated sludge (WAS) pump, installing a new centrifuge, installing new filter feed and effluent pumps, and replacing the UV disinfection system. The existing centrifuge and UV disinfection system will remain in place for standby use. These changes will allow the two existing SBR units to be taken out of service (one at a time) to maintain and/or replace aeration headers, pumps, decanters and other support equipment located in the SBR tanks. In addition, relevant permit language has been updated to conform to the current framework language.

Annual Registration Fee [A.R.S. § 49-242]

The Annual Registration Fee for this permit is established by A.R.S. § 49-242(B) and is payable to the Arizona Department of Environmental Quality (ADEQ) each year. The design flow is 8.2 million gallons per day (mgd).

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is \$14.1 million. The financial capability was demonstrated through A.A.C. R18-9-A203(C)(1).

**2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]**

The Water Reclamation Facility shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in Arizona Administrative Code R18-9-B204.

The facility shall meet the requirements for pretreatment by conducting monitoring as per R18-9-B204(B)(6)(b)(iii).

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the applicable federal, state or local regulations.

**2.2.1 Engineering Design**

The 4.1 mgd WRF was designed as per the design report prepared by Pacific Advanced Civil Engineers, Inc. dated October 2001. A WRF expansion to 8.2 mgd was designed and shall be constructed as per the design report prepared by Pacific Advanced Civil Engineers, Inc. dated August 2004. The WRF modifications outlined in this amendment were designed by Brian P McBride, P.E. (Civil), McBride Environmental Solutions, Inc., dated July 2, 2007.

**2.2.2 Site-specific Characteristics**

Site-specific characteristics were not considered to determine BADCT for the WRF.

**2.2.3 Pre-operational Requirements**

The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department per the Compliance Schedule in Section 3.0.

**2.2.4 Operational Requirements**

1. Permittee shall maintain a copy of the up-to-date Operations and Maintenance Manual at the WRF site at all times and shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table III.
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance Section.

**2.2.5 Reclaimed Water Classification**

[A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 through 307]

The treatment facility is classified as producing Class A+ reclaimed water and may be used for any allowable Class A, B, or C use under a valid reclaimed water permit.

**2.2.6 Certified Areawide Water Quality Management Plan Conformance**

[A.A.C. R18-9-A201(B)(6)(a)]

~~Facility operations must conform to the approved Certified Areawide Water Quality Management Plan according to the 208 consistency determination in place at the time of permit issuance.~~

**2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]**

1. The permittee is authorized to operate the WRF with a maximum average monthly flow of 4.1 mgd. The maximum average monthly flow at full build-out, to be completed as per Section 3.0, Compliance Schedule, is 8.2 mgd.

2. The permittee shall notify all users that the materials authorized to be disposed of through the WRF are typical household sewage and pre-treated commercial wastewater, and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of applicable BADCT pollutant control technologies including liner failure<sup>1</sup>, uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.
4. Specific discharge limitations are listed in Section 4.2, Tables IA, IB and IC.

**2.4 Point of Compliance (POC) [A.R.S. § 49-244]**

The hazardous/non-hazardous POC is established by the following designated location:

1	Theoretical POC located at the northwest corner of the WRF	33° 27' 56" N	112° 21' 54" W
---	--	---------------	----------------

Groundwater monitoring is not required at the point of compliance, except as a contingency action.

The Director may amend this permit to require installation of a well and initiation of groundwater monitoring at the POC, or to designate additional points of compliance, if information on groundwater gradients or groundwater usage indicates the need.

**2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]**

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and Chain-of-Custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) PART 136 for guidance in this regard. Copies of laboratory analyses and Chain-of-Custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

**2.5.1 Pre-Operational Monitoring**

Not applicable at the time of permit issuance.

**2.5.2 Routine Discharge Monitoring**

The permittee shall monitor the wastewater according to Section 4.2, Table IA or IB, as applicable. Representative samples of the wastewater shall be collected downstream of the UV disinfection channel.

---

<sup>1</sup>Liner failure in a single-lined impoundment is any condition that would result in leakage exceeding 550 gallons per day per acre.

### 2.5.3. Reclaimed Water Monitoring

The permittee shall monitor the reclaimed water parameters listed under Section 4.2, Table IC in addition to the routine discharge monitoring parameters listed in Section 4.2, Table IA or IB, as applicable. Representative samples of the reclaimed water shall be collected downstream of the UV disinfection channel.

### 2.5.4 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table III.

1. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the SMRF submitted quarterly to the ADEQ Water Quality Compliance Section, Data Unit. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate this on the SMRF.
2. The permittee shall submit data required in Section 4.2, Table III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

### 2.5.5 Groundwater Monitoring and Sampling Protocols

Routine groundwater monitoring is not required under the terms of this permit.

### 2.5.6 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit.

### 2.5.7 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA-approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state certified laboratories can be obtained at the address below:

Arizona Department of Health Services  
Office of Laboratory Licensure and Certification  
250 North 17<sup>th</sup> Ave.  
Phoenix, AZ 85007  
Phone: (602) 364-0720

### 2.5.8 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Groundwater Section for approval prior to installation and the permit shall be amended to include any new monitoring points.

**2.6 Contingency Plan Requirements****[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]****2.6.1 General Contingency Plan Requirements**

At least one copy of the approved contingency and emergency response plan(s) submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any AL exceedance, violation of a discharge limit (DL), AQL, or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL, or any other permit condition.

**2.6.2 Exceeding of Alert Levels/Performance Levels****2.6.2.1 Exceeding of Performance Levels Set for Operational Conditions**

1. If an operational performance level (PL) set in Section 4.2, Table III has been exceeded the permittee shall:
  - a. Notify the ADEQ Water Quality Compliance Section within five days of becoming aware of the exceedance.
  - b. Submit a written report within thirty days after becoming aware of the exceedance. The report shall document all of the following:
    - (1) A description of the exceedance and its cause;
    - (2) the period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
    - (3) any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
    - (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
    - (5) any malfunction or failure of pollution control devices or other equipment or process.

2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

**2.6.2.2 Exceeding of Alert Levels (ALs) Set for Discharge Monitoring**

1. If an AL set in Section 4.2, Tables IA and IB has been exceeded, the permittee shall immediately investigate to determine the cause. The investigation shall include the following:

- a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the exceedance;
  - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
  - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the exceedance, the permittee shall sample individual waste streams composing the wastewater for the parameters in question, if necessary to identify the cause of the exceedance.
2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
  3. Within 30 days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Data Unit, along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
  4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

#### 2.6.2.2.1 Exceeding Permit Flow Limit

1. If the AL for average monthly flow in Section 4.2, Table IA or IB has been exceeded, the permittee shall submit an application for an APP amendment to expand the WRF or submit a report detailing the reasons that expansion is not necessary.
2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

#### 2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

##### 2.6.2.3.1 Alert Levels for Indicator Parameters

No ALs were established for indicator parameters. Monitoring is for informational purposes only.

##### 2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

Not required at time of permit issuance.

##### 2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not required at time of permit issuance.

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#### 2.6.3 Discharge Limit Violation

1. If a DL set in Section 4.2, Tables IA, IB or IC has been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:
  - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;

- b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
- c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the violation, the permittee shall sample individual waste streams composing the wastewater for the parameters in violation, if necessary to identify the cause of the violation.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

2. The permittee shall comply with the freeboard requirements as specified in Section 4.2, Table III (Facility Inspections) to prevent the overtopping of an impoundment or sludge drying bed. If an impoundment or sludge drying bed is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.
3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

#### 2.6.4 Aquifer Quality Limit Violation

Not applicable.

#### 2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241

##### 2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

##### 2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(19)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Water Quality Compliance Section at (602) 771-4497 within 24 hours of discovering the discharge of hazardous material which: a) has the potential to cause an AWQS or AQL exceedance, or; b) could pose an endangerment to public health or the environment.

##### 2.6.5.3 Discharge of Non-hazardous Materials

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In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Water Quality Compliance Section at (602) 771-4497 within 24 hours of discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL exceedance, or; b) could pose an endangerment to public health or the environment.

to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and shift inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time; and
6. Any other information required by this permit to be entered in the log book.

Monitoring records for each measurement shall comply with R18-9-A206(B)(2):

#### 2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section in writing (by mail or by fax - see Section 2.7.5) within five (5) days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation, or of an AL exceedance.
2. The permittee shall submit a written report to the Water Quality Compliance Section within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
  - a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
  - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
  - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
  - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
  - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
  - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

#### 2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall complete the SMRF provided by the Department to reflect facility inspection requirements designated in Section 4.2, Table III and submit to the ADEQ Water Quality Compliance Section, Data Unit quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

The permittee shall submit the reclaimed water monitoring results as required in Section 4.2, Table IC and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

1. Any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee;  
and
2. Any end user who has not waived interest in receiving this information.

**2.7.5 Reporting Location**

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality  
Water Quality Compliance Section, Data Unit  
Mail Code 5415B-1  
1110 West Washington Street  
Phoenix, Arizona 85007  
Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to the following address:

Arizona Department of Environmental Quality  
Water Quality Compliance Section  
Mail Code 5415B-1  
1110 West Washington Street  
Phoenix, Arizona 85007  
Phone (602) 771-4497  
Fax (602) 771-4505

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality  
Groundwater Section  
Mail Code 5415B-3  
1110 West Washington Street  
Phoenix, Arizona 85007  
Phone (602) 771-4428

**2.7.6 Reporting Deadline**

The following table lists the quarterly report due dates:

Monitoring conducted during	Report due by
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

The following table lists the semi-annual and annual report due dates:

Monitoring conducted	Report due by
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30
Annual: January-December	January 30

**2.7.7 Changes to Facility Information in Section 1.0**

The Groundwater Section and Water Quality Compliance Section shall be notified within 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

**2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]**

The permittee shall give written notice to the Water Quality Compliance Section before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another state-approved wastewater treatment facility;
2. Correct the problem that caused the temporary cessation of the facility; and
3. Notify the ADEQ (Water Quality Compliance Section with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section of the operational status of the facility every three (3) years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

**2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]**

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section of the intent to cease operation without resuming activity for which the facility was designed or operated.

**2.9.1 Closure Plan**

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Section, a closure plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

**2.9.2 Closure Completion**

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Section indicating that the approved closure plan has been implemented fully and providing supporting documentation to demonstrate that clean closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. ~~If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:~~

1. Clean closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;

4. Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2; and
5. Further action is necessary to meet property use restrictions.

**2.10 Post-closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]**

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Section.

In the event clean-closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a post-closure plan that addresses post-closure maintenance and monitoring actions at the facility. The post-closure plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the post-closure plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the post-closure plan.

**2.10.1 Post-closure Plan**

A specific post-closure plan may be required upon the review of the closure plan.

**2.10.2 Post-closure Completion**

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the ADEQ Water Quality Compliance Section.

The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the facility is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under this permit and within 90 days after completion of construction.
Begin construction of the 8.2 mgd expansion.	Notify ADEQ within 15 days after the commencement date of construction of the 8.2 mgd expansion.
Submit an Engineer's Certificate of Completion for the 8.2 mgd expansion.	Within 30 days after completion of construction, prior to commencing discharge from the expanded WRF, and prior to beginning monitoring under Table IB.
Cease monitoring under Table IA and commence monitoring under Table IB.	Within 30 days after submitting the Engineer's Certificate of Completion for the 8.2 mgd expansion.
Notify ADEQ of commencement of discharge from the expanded WRF.	Within 15 days after commencement of monitoring under Table IB.

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

Not applicable at permit issuance.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA  
ROUTINE DISCHARGE MONITORING - 4.1 MGD<sup>2</sup>**

Sampling Point Number	Sampling Location/Description			Latitude	Longitude
1	Downstream of the UV Channel			33° 27' 55" N	112° 21' 56" W
Parameter	Alert Level <sup>3</sup>	Discharge Limit <sup>4</sup>	Unit	Sampling Frequency	Reporting Frequency
Total Flow <sup>5</sup> : Daily <sup>6</sup>	Not Established <sup>7</sup>	Not Established	mgd <sup>8</sup>	Daily	Quarterly
Total Flow: Monthly Average <sup>9</sup>	3.9	4.1	mgd	Monthly Calculation	Quarterly
Total Flow - Reuse Daily	Not Established	4.1	mgd	Daily	Quarterly
Total Flow - Reuse Monthly Average <sup>10</sup>	Not established	4.1	mgd	Monthly Calculation	Quarterly
<i>E. coli</i> : Single sample maximum	Not established	15.0	CFU or MPN <sup>11</sup>	Daily	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week <sup>12</sup>	Not established	Non-detect <sup>13</sup>	CFU or MPN	Daily	Quarterly
Total Nitrogen <sup>14</sup> : Five-sample rolling geometric mean	8.0	10.0	mg/l	Monthly <sup>15</sup>	Quarterly

<sup>2</sup>Monitoring under Table IA is no longer required upon commencement of monitoring under Table IB.

<sup>3</sup>AL = Alert Level

<sup>4</sup>DL = Discharge Limit

<sup>5</sup>Total flow is the total of flows to on-site process use, reclaimed water, and discharge to the RID canal.

<sup>6</sup>Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>7</sup>Not established = Monitoring required but no limits have been specified at time of permit issuance.

<sup>8</sup>mgd = million gallons per day

<sup>9</sup>Monthly average of daily flow values.

<sup>10</sup>Monthly average of daily flow values.

<sup>11</sup>CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

<sup>12</sup>Week means a seven-day period starting on Sunday and ending on the following Saturday.

<sup>13</sup>If at least four (4) of seven (7) samples in a week are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of seven (7) samples in a week have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

<sup>14</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>15</sup>A five-month geometric mean of the results of the five (5) most recent samples

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA  
ROUTINE DISCHARGE MONITORING – 4.1 MGD (continued)

Parameter	CI	DL	Unit	Sampling Frequency	Reporting Frequency
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

## 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA  
 ROUTINE DISCHARGE MONITORING - 4.1 MGD (continued)

Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IB**  
**ROUTINE DISCHARGE MONITORING - 8.2 MGD**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Downstream of the UV Channel			33° 27' 55" N	112° 21' 56" W
Parameter	Alert Level	Discharge Limit	Unit	Sampling Frequency	Reporting Frequency
Total Flow <sup>18</sup> : Daily <sup>19</sup>	Not Established <sup>20</sup>	Not Established	mgd <sup>21</sup>	Daily	Quarterly
Total Flow: Monthly Average <sup>22</sup>	7.8	8.2	mgd	Monthly Calculation	Quarterly
Total Flow - Reuse Daily	Not Established	8.2	mgd	Daily	Quarterly
Total Flow - Reuse Monthly Average <sup>23</sup>	Not established	8.2	mgd	Monthly Calculation	Quarterly
<i>E. coli</i> : Single sample maximum	Not established	15.0	CFU or MPN <sup>24</sup>	Daily	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week <sup>25</sup>	Not established	Non-detect <sup>26</sup>	CFU or MPN	Daily	Quarterly
Total Nitrogen <sup>27</sup> : Five-sample rolling geometric mean	8.0	10.0	mg/l	Monthly <sup>28</sup>	Quarterly

<sup>16</sup> AL = Alert Level

<sup>17</sup> DL = Discharge Limit

<sup>18</sup> Total flow is the total of flows to on-site process use, reclaimed water, and discharge to the RID canal.

<sup>19</sup> Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>20</sup> Not established = Monitoring required but no limits have been specified at time of permit issuance.

<sup>21</sup> mgd = million gallons per day

<sup>22</sup> Monthly average of daily flow values.

<sup>23</sup> Monthly average of daily flow values.

<sup>24</sup> CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

<sup>25</sup> Week means a seven-day period starting on Sunday and ending on the following Saturday.

<sup>26</sup> If at least four (4) of seven (7) samples in a week are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of seven (7) samples in a week have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

<sup>27</sup> Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>28</sup> A five-month geometric mean of the results of the five (5) most recent samples

## 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IB  
 ROUTINE DISCHARGE MONITORING -- 8.2 MGD (continued)

Parameter	State	Federal	Unit	Sampling Frequency	Monitoring Frequency
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

## 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IB  
 ROUTINE DISCHARGE MONITORING - 8.2 MGD (continued)

Parameter	DL	DL	Unit	Sampling Frequency	Reporting Frequency
<b>Volatile Organic Compounds (VOCs):</b>					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IC  
RECLAIMED WATER MONITORING TABLE - CLASS A+<sup>29</sup>

Sampling Point Number	Sampling Point Description	Latitude	Longitude
1	Downstream of the UV Channel	33° 27' 55" N	112° 21' 56" W
Parameter	Limit	Unit	Sampling Frequency
Total Nitrogen <sup>30</sup> : Five-sample rolling geometric mean	10.0	mg/l	Monthly
<i>E. coli</i> : Single-sample maximum	15.0	CFU or MPN <sup>31</sup>	Daily <sup>32</sup>
<i>E. coli</i> : Four (4) of last seven (7) samples	Non-detect <sup>33</sup>	CFU or MPN	Daily
Turbidity <sup>34</sup> : Single reading	5.0	NTU <sup>35</sup>	Everyday <sup>36</sup>
Turbidity: 24-hour average	2.0	NTU	Everyday
Enteric Virus <sup>37</sup> : Four (4) of last seven (7) samples	Non-detect	PFU <sup>38</sup>	Monthly / Suspended <sup>39</sup>

<sup>29</sup>Reclaimed water monitoring under Table IC shall be performed in addition to routine discharge monitoring required under Section 4.2, Tables IA and IB.

<sup>30</sup>Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

<sup>31</sup>CFU = Colony Forming Units per 100 ml; MPN = Most Probable Number per 100 ml. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

<sup>32</sup>For fecal coliform, "daily" sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each seven-day period are obtained and analyzed.

<sup>33</sup>If at least four (4) of the last seven (7) samples are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the last seven (7) samples have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

<sup>34</sup>Turbidimeter shall have a signal averaging time not exceeding 120 seconds. Occasional spikes due to back-flushing or instrument malfunction shall not be considered an exceedance. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF.

<sup>35</sup>NTU = Nephelometric Turbidity Units

<sup>36</sup>For the single turbidity reading, "everyday" means the maximum reading during the 24-hour period.

<sup>37</sup>Initial monthly enteric virus sampling shall be performed to indicate four (4) out of seven (7) sample results of non-detect.

<sup>38</sup>Plaque Forming Units per 40 Liters. A value of <1.1 PFU/40 L shall be considered to be non-detect.

<sup>39</sup>Enteric virus sampling shall resume only when the discharge limit for the 24-hour average for turbidity is exceeded for two (2) consecutive 24-hour monitoring periods. Monthly enteric virus monitoring shall continue until four (4) out of seven (7) consecutive sample results show no detection. During times when enteric virus sampling is suspended, enter "suspended" in the appropriate space on the SMRF.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II  
GROUNDWATER MONITORING

Not applicable.

TABLE III  
FACILITY INSPECTION (Operational Monitoring)

Component	Condition	Frequency	Frequency
Pump Integrity	Good working condition	Weekly	Quarterly
Treatment Plant Components	Good working condition	Weekly	Quarterly

### 5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application, dated: December 29, 2000 (original APP, signed on July 23, 2001)  
August 18, 2004 (Significant Amendment, signed on June 13, 2006)  
June 30, 2008 (Other Amendment)
3. Final Hydrologist Report, dated: October 7, 2005 (Significant Amendment)
4. Final Engineering Report, dated: August 16, 2005 (Significant Amendment)  
August 27, 2008 (Other Amendment)
5. Public Notice, dated: May 30, 2001 (original APP)  
February 23, 2006 (Significant Amendment)
6. Public Hearing, dated: Not applicable.
7. Responsiveness Summary, dated: Not applicable.

## 6.0 NOTIFICATION PROVISIONS

### 6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242(D).

### 6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

### 6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

### 6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an Aquifer Water Quality Standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an Aquifer Water Quality Standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

### 6.5 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

### 6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. the filing of bankruptcy by the permittee;
2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

### ~~6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]~~

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

### 6.8 Inspection and Entry [A.R.S. §§ 41-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

**6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]**

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

**6.10 Permit Action: Amendment, Transfer, Suspension, and Revocation  
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

**7.0 ADDITIONAL PERMIT CONDITIONS**

**7.1 Other Information [A.R.S. § 49-243(K)(8)]**

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

**7.2 Severability [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

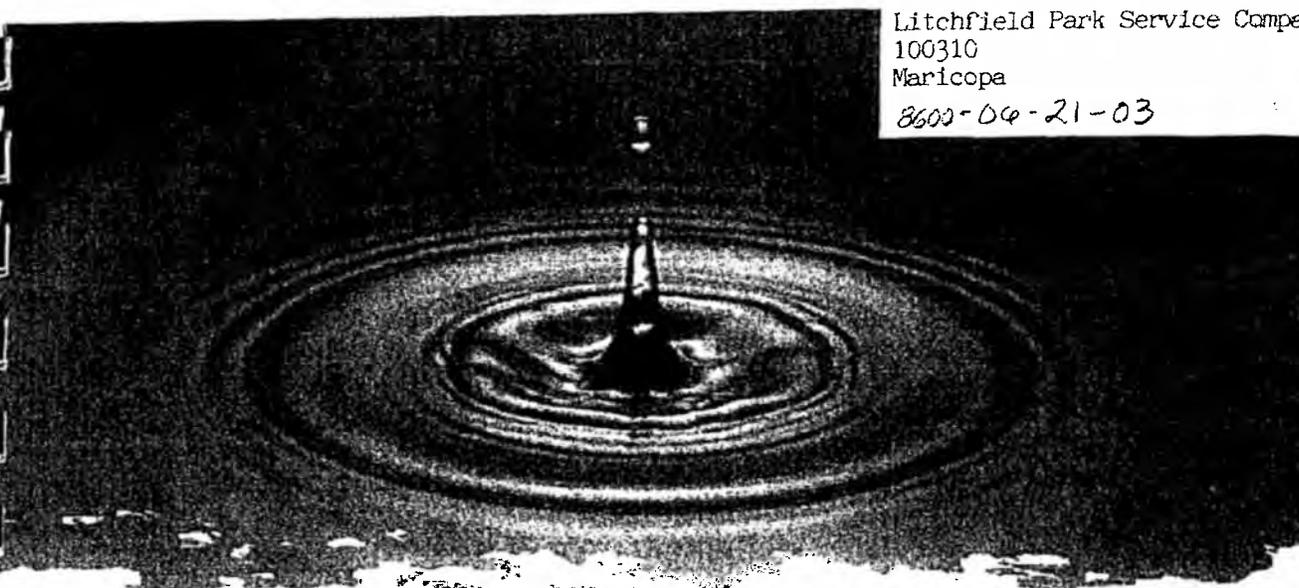
**7.3 Permit Transfer**

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

# **EXHIBIT 3**

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Litchfield Park Service Compa  
100310  
Maricopa  
8600-04-21-03



**CLEAN WATER ACT  
- 208 AMENDMENT -**

APPLICATION FOR  
MARICOPA ASSOCIATION OF GOVERNMENTS

ADEQ WATER PERMITS  
RECEIVED

DEC 29 2008

PREPARED FOR:

LTF Application Clerk *RL* *MS*

**LITCHFIELD PARK SERVICE COMPANY  
WATER RECLAMATION FACILITY  
&  
CITY OF GOODYEAR**

PREPARED BY

**PACE**  
PACIFIC ADVANCE  
CIVIL ENGINEERING

## EXECUTIVE SUMMARY

The Maricopa Association of Governments (MAG) is the Designated Management Agency with the authority under Section 208(2)(b) of the Clean Water Act (CWA) to prepare the Regional Water Quality Management Plan for the Maricopa County Planning Area. The purpose of this application is to request a Clean Water Act Section 208 amendment to the current Regional Water Quality Management Plan. The requested amendments include:

### Amendment Item #1:

The construction of a new LPSCo owned and operated 8.2 MGD Palm Valley water reclamation facility (WRF) on McDowell Road between Bullard Avenue and Litchfield Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the current Litchfield Park Service Company (LPSCo) service area and portions of the Regional Analysis Zone (RAZ) 265 and 266. The expanded service area for the Palm Valley WRF will have a general boundary from the I-10 freeway north past Camelback Road and west from Dysart Road to Bullard Avenue. Permits that will be required for the Palm Valley WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

### Amendment Item #2:

The construction of a new LPSCo owned and operated 8.2 MGD Sarival WRF at Sarival Avenue and McDowell Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the remaining portions of RAZ 265. The service area for the Sarival WRF will have a general boundary from the I-10 freeway north to Camelback Road and west from Bullard Avenue to Cotton Lane and sections between Cotton Lane and Perryville Road. Permits that will be required for the Sarival WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

Several alternatives have been studied in addition to the construction of independent wastewater treatment plants for accommodation of increasing flows. The alternatives include:

### Alternative 1:

LPSCo continued contribution of wastewater flow to the Goodyear 157<sup>th</sup> Avenue WWTP and purchase of additional capacity to be provided at the 157<sup>th</sup> Avenue WWTP.

### Alternative 2:

Construction of a LPSCo wastewater treatment plant and sale of all interest in the City of Goodyear 157<sup>th</sup> Avenue WWTP.

**Alternative 3:**

LPSCo continued contribution of wastewater flow to the Goodyear 157<sup>th</sup> Avenue WWTP and purchase of additional capacity and process upgrades to be provided at the 157<sup>th</sup> Avenue WWTP.

**Alternative 4:**

Deferred construction of a LPSCo wastewater treatment plant until the actual LPSCo wastewater contribution to the Goodyear 157<sup>th</sup> Avenue WWTP increases to 2.0 MGD.

**Alternative 5:**

Deferred construction of a LPSCo wastewater treatment plant until the actual LPSCo wastewater contribution to the Goodyear 157<sup>th</sup> Avenue WWTP increases to 1.4 MGD.

Construction of a LPSCo water reclamation plant was considered to be highly cost-effective in comparison to the continued contribution of wastewater to the Goodyear 157<sup>th</sup> Avenue WWTP. In their 1998 report, Black & Veatch, LLP determined that Alternative 2 of those listed above was the most economically beneficial.

This CWA 208 Amendment application provides information on the proposed independent LPSCo WRFs. The following sections describe how the Section 208 requirements are addressed including alternatives, permitting, pretreatment, sludge management, construction, financing, impacts, and public participation.

**ABBREVIATIONS**

ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
APP	Aquifer Protection Permit
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
LPSCo	Litchfield Park Service Company
MAG	Maricopa Association of Governments
MGD	Million gallons per day
MSDS	Material Safety Data Sheets
O&M	Operations and maintenance
P.A.C.E.	Pacific Advanced Civil Engineering, Inc.
RAZ	Regional Analysis Zone
WRF	Water Reclamation Facility
WWTP	Wastewater Treatment Plant

**20-Year Needs**

The Maricopa Association of Governments (MAG) is the Designated Management Planning Agency with the authority under Section 208(2)(b) of the Clean Water Act to prepare the Regional Water Quality Management Plan for the Maricopa County Planning Area. The purpose of this application is to request a Clean Water Act Section 208 amendment to the current Regional Water Quality Management Plan. The requested amendments include:

**Amendment Item #1:**

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**Amendment Item #2:**

The construction of a new LPSCo owned and operated 8.2 MGD Sarival WRF at Sarival Avenue and McDowell Road in the City of Goodyear. The purpose of this new facility is for the reclamation of wastewater flows from the remaining portions of RAZ 265. The service area for the Sarival WRF will have a general boundary from the I-10 freeway north to Camelback Road and west from Bullard Avenue to Cotton Lane and sections between Cotton Lane and Perryville Road. Permits that will be required for the Sarival WRF will include an ADEQ Reuse Permit for irrigation of existing golf courses and parks as well as an APP permit for both reuse and recharge. In the event that not all effluent water can be reused and recharged a NPDES will be in place to allow a secondary point of discharge.

LPSCo has a current allocation of 1.4 MGD capacity at the City of Goodyear 157<sup>th</sup> Avenue WWTP. It is estimated that the sewer generation from the LPSCo service area will exceed the current 1.4 MGD capacity allocation beginning in the year 2001. To accommodate existing and future flows, two new wastewater treatment plants are proposed. The proposed LPSCo wastewater treatment plants are the Palm Valley and Sarival WRFs. Combined, the new treatment facilities will provide tertiary wastewater treatment and reclamation for all of the sewage generated in RAZ 265, 266 and two additional developments outside these planning areas (Wigwam Creek and Stardust Development).

The Palm Valley WRF will be designed and constructed in two phases. Phase I will have an average day capacity of 4.1 MGD and a full build-out capacity of 8.2 MGD. Preliminary engineering design of Phase I has begun. The facility is expected to be complete and operational by December 2001.

To conserve time, LPSCo has opted for a design/build approach for the initial phase of this facility. The second phase expansion is anticipated to occur after approximately 2012. The initial flow to the Palm Valley facility will come from diversion of the current 1.1 MGD LPSCo flow to the City of Goodyear's 157<sup>th</sup> Avenue plant. As part of the original service agreement with the City of Goodyear, LPSCo has the right to sell part of or all of its 1.4 MGD capacity back to the city. At the completion of Phase I of the Palm Valley facility, LPSCo will sell 1.0 MGD of the 1.4 MGD capacity in the 157<sup>th</sup> Avenue plant back to the City of Goodyear.

This capacity will allow the City of Goodyear time to upgrade and expand their existing facilities to accommodate future flows from the Central Planning area (RAZ 280 and 281) and will provide a minimum of 0.4 MGD capacity surplus for LPSCo at the 157<sup>th</sup> Avenue plant.

After Phase I completion of the Palm Valley WRF, the second plant will be designed and constructed. This second facility will be constructed near the intersection of Sarival Avenue and McDowell Road. The Sarival WRF will also be designed and constructed in two phases. Phase I will have an average day capacity of 4.1 MGD with a build-out capacity of 8.2 MGD. The first phase of construction for this facility is anticipated to occur in approximately 2006. Until that time, current and near-future flows will use the existing 0.4 MGD surplus LPSCo capacity at the City of Goodyear 157<sup>th</sup> Avenue treatment plant. Phase II construction is anticipated to occur after 2016.

The following sub-sections describe the proposed wastewater treatment plants, alternatives, and regulatory requirements for implementation.

**A. Description of Existing Wastewater Treatment Facilities**

There are no existing wastewater treatment facilities in RAZ 265 or 266 to accommodate the increasing wastewater generation from the LPSCo service area. Currently, wastewater from the LPSCo service area is routed approximately 5.7 miles to the City of Goodyear 157<sup>th</sup> Avenue WWTP. Because the wastewater generation from the LPSCo service area is approaching the current capacity agreement of 1.4 MGD, LPSCo proposes to construct new water reclamation plants in their service area. The addition of these facilities will reduce the overall capital and operational costs for current and future LPSCo customers by eliminating the need for 6 miles of additional trunk sewer and lift stations. In addition, consumers will benefit from the reduced cost of reclaimed water, which will be processed much closer to the point of reuse.

**B. Summary of Alternatives**

Five alternatives have been considered to evaluate the treatment of the increasing wastewater flows from the LPSCo service area. Black & Veatch, LLP prepared a study of these alternatives in July 1998. A copy of the *Preliminary Wastewater Planning Study for SunCor and Litchfield Park Service Company* is included in appendix F of this amendment application for further review. The following alternatives were studied:



August 30, 2000

Ms. Lindy Bauer, Environmental Program Director  
Maricopa Association of Governments  
302 North 1<sup>st</sup> Avenue, Suite 300  
Phoenix, AZ 85003

**RE: MAG 208 AMENDMENT - GOODYEAR, ARIZONA**

Dear Ms. Bauer:

Enclosed is a proposed Amendment to the Maricopa Association of Governments (MAG) 208 Water Quality Management Plan point source plan element for the City of Goodyear and Litchfield Park Service Company (LPSCo). We are requesting the County's review comments, and its formal support in this MAG 208 Amendment process.

The proposed amendment will update the plan for wastewater treatment facilities in the central and northern planning area within the City of Goodyear, and will provide additional needed capacity for SunCor, the master developer for most of the north area.

The WRF's are located within three miles of Litchfield Park, Avondale, Glendale, El Mirage, Buckeye, and unincorporated Maricopa County. Support letters are attached from Avondale, Litchfield Park and Glendale.

Council approved the Amendment to MAG 208 Water Quality Management Plan for the addition of Phases I-IV (16.4 MGD total) of the Palm Valley and Sarival Avenue Water Reclamation Facilities (WRF) both located north of McDowell Road, subject to the AGREEMENT FOR MAG 208 AMENDMENT. The agreement, which is attached outlines the City's consent of the revisions to be made to the 208 plan proposed by LPSCo. Part of the agreement however addresses conditions that LPSCo must meet in order to proceed with expansions to the Palm Valley facility (beyond the original 4.1 MGD construction) or construction of the Sarival Avenue facility.

- A. The facility must meet State and Federal odor requirements.
- B. The operation must meet State and Federal noise control requirements.
- C. The facility must produce a Class A Sludge without violations of any State or Federal requirements.
- D. Compliance with the Engineering Report prepared by Environmental Utilities International (also attached).

THE CITY OF GOODYEAR

119 North Litchfield Road • Goodyear, Arizona 85338  
623-932-3910 • 1-800-USA-1-PHX • FAX 623-932-1177 • TDD 623-932-6500

At such time as each phase of the facilities reaches an operating capacity of 3 million gallons per day (3 MGD), of each operating phase, without violation and in compliance with conditions A, B, C and 4 above, LPSCo may commence construction of the next phase. The City's designated consultant shall determine, at each phase, whether LPSCo has complied with the requirements of this Agreement. The Consultant's report of findings shall be submitted to City Council for approval prior to commencement of each phase.

The following are current WWTP's and WRF and the proposed amendment for additional WRF's in this area:

<u>Existing 208 Plan</u>	<u>Proposed Amendment</u>
Goodyear Wastewater Treatment Plant	n/a
Corgett Basin WRF	n/a
Lum Basin WWTP	n/a
Waterman Basin WWTP	n/a
n/a	Palm Valley WRF
n/a	Sarival Avenue WRF

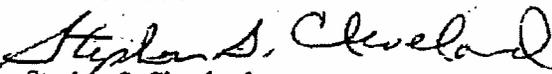
Since, the newly proposed WRF's are located within three miles of the unincorporated Maricopa County wastewater planning area. The City of Goodyear is requesting a written expression of support from the County, confirming that this Amendment will not conflict with any wastewater plans by the County.

We would appreciate a timely review and response so that we can initiate the MAG approval process. Please address your letter of support to my attention. If you have technical questions or comments, you may direct them to Steve Owen of Pacific Environmental Resources Corporation (PERC) at (602) 631-3905 ext. 405.

The City of Goodyear appreciates the County's assistance with this matter.

Sincerely,

CITY OF GOODYEAR

  
Stephen S. Cleveland  
City Manager

Enclosure

cc: Cato Esquivel, Jr., Public Works Director  
David W. Ellis, LPSCo  
Jay Ellingson, SunCor.  
Reading File  
City Clerk

ORIGINAL



RECEIVED

1 FENNEMORE CRAIG, P.C.  
2 Jay L. Shapiro (014650)  
3 Patrick J. Black (017141)  
4 3003 N. Central Ave.  
5 Suite 2600  
6 Phoenix, Arizona 85012  
7 Attorneys for Litchfield Park Service Company

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AZ CORP COMMISSION  
DOCKET CONTROL

Arizona Corporation Commission

DOCKETED

FEB - 8 2010

DOCKETED BY [Signature]

BEFORE THE ARIZONA CORPORATION COMMISSION

8 IN THE MATTER OF THE APPLICATION  
9 OF LITCHFIELD PARK SERVICE  
10 COMPANY FOR AN EXTENSION OF ITS  
11 CERTIFICATE OF CONVENIENCE AND  
12 NECESSITY TO PROVIDE  
13 WASTEWATER SERVICE IN MARICOPA  
14 COUNTY, ARIZONA.

DOCKET NO. SW-01428A-06-0021

NOTICE OF COMPLIANCE WITH  
DECISION NO. 68744

13 Litchfield Park Service Company ("LPSCO" or "Company") hereby files this  
14 Notice of Compliance in the above captioned matter. In Decision No. 68744 (June 5,  
15 2006), the Commission ordered LPSCO to provide the Commission within one (1) year of  
16 the effective date of the order a detailed report describing the Company's progress toward  
17 working with the water company for the requested area, Valley Utilities Water Company,  
18 to increase the use of effluent specifically as it pertains to golf courses, ornamental lakes  
19 or other aesthetic water features. This report will be filed each January beginning in 2007  
20 with the Commission's Docket Control until the Company's next general rate case.  
21 Although LPSCO has a current rate case pending, the Company is filing this Notice to  
22 ensure compliance.

23 Since the last status report, efforts to coordinate effluent use with Valley Utilities  
24 Water Company have not been successful due to the lack of need. However, LPSCO  
25 personnel had been in discussions with two golf course owners in the Company's service  
26 area for the use of effluent. One of the owners now utilizes effluent, and LPSCO has been

1 negotiating an agreement with the other owner. Additionally, LPSCO had already begun  
2 utilizing effluent at two greenbelt areas within its service area, and had incorporated  
3 effluent use into the design of facilities needed to serve the new Estrella Falls Mall  
4 development.

5 RESPECTFULLY SUBMITTED this 8<sup>th</sup> day of February, 200~~9~~<sup>10</sup>.

6 FENNEMORE CRAIG, P.C.

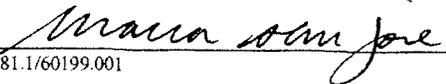
7  
8 By   
9 Jay L. Shapiro  
10 Patrick J. Black  
11 3003 N. Central Avenue, Suite 2600  
12 Phoenix, AZ 85012  
13 (602) 916-5346  
14 Attorneys for Litchfield Park Service Company

14 An ORIGINAL and 13 copies of the  
15 foregoing was filed this  
16 8<sup>th</sup> day of February, 200~~9~~<sup>10</sup> with:

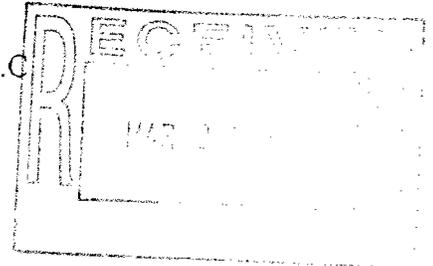
17 Docket Control  
18 Arizona Corporation Commission  
19 1200 West Washington  
20 Phoenix, AZ 85007

21 COPY hand-delivered  
22 this 8<sup>th</sup> day of February, 200~~9~~<sup>10</sup> to:

23 Kimberly Battista, Compliance  
24 Utilities Division  
25 Arizona Corporation Commission  
26 1200 West Washington  
Phoenix, AZ 85007

By:   
2282981.1/60199.001

SALLQUIST, DRUMMOND, & O'CONNOR, P.C.  
Tempe Office  
4500 S. Lakeshore Drive  
Suite 339  
Tempe, Arizona 85282



# FAX COVER SHEET

DATE: March 27, 2006

TIME: 1:26 PM

TO: Michael D. Weber, P.E.

FAX: (623) 935-1020

CC:

FROM: Richard L. Sallquist

PHONE: (480) 839-5202

FAX: (480) 345-0412

E-MAIL: dick@sd-law.com

RE: Attached

NUMBER OF PAGES INCLUDING COVER SHEET: 18

ACCOUNT NUMBER: 60001-00000

MESSAGE:

Mike: Attached is the Staff Report for the second CC&N Application, without the amended legal description. . They are recommending approval, but disallowing the \$1,500 TPED. I will mail the full Report with the legal. We should discuss, and then I will prepare an outline of your testimony. Thanks. Dick

MEMORANDUM

RECEIVED

2006 MAR 24 A 9:39

AZ CORP COMMISSION  
DOCUMENT CONTROL

TO: Docket Control

FROM: Ernest G. Johnson  
Director  
Utilities Division

Date: March 24, 2006

RE: STAFF REPORT FOR LITCHFIELD PARK SERVICE COMPANY ..  
APPLICATION FOR EXTENSION OF ITS EXISTING CERTIFICATE OF  
CONVENIENCE AND NECESSITY (DOCKET NO. SW-01428A-06-0021)

Attached is the Staff Report for Litchfield Park Service Company's application for extension of its existing Certificate of Convenience and Necessity to provide wastewater utility service. Staff is recommending approval with conditions.

EGJ:BNC:red

Originator: Blessing Chukwu

Attachement: Original and thirteen copies

Service List for: Litchfield Park Service Company  
Docket No. SW-01428A-06-0021

Mr. Richard L. Sallquist  
Sallquist, Drummond & O'Connor, P.C.  
4500 S. Lakeshore Drive, Suite 339  
Tempe, Arizona 85282

Mr. Christopher C. Kempley  
Chief, Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Mr. Ernest G. Johnson  
Director, Company Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Ms. Lyn Farmer  
Chief, Hearing Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION

LITCHFIELD PARK SERVICE COMPANY

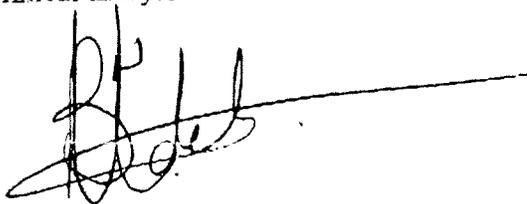
SW-01428A-06-0021

APPLICATION FOR EXTENSION OF ITS EXISTING  
CERTIFICATE OF CONVENIENCE AND NECESSITY

MARCH 24, 2006

## STAFF ACKNOWLEDGMENT

The Staff Report for Litchfield Park Service Company (Docket No. SW-01428A-06-0021) was the responsibility of the Staff members signed below. Blessing Chukwu was responsible for the review and analysis of the Company's application. Marlin Scott, Jr. was responsible for the engineering and technical analysis.

A handwritten signature in black ink, appearing to be 'B. Chukwu', with a long horizontal line extending to the right.

Blessing Chukwu  
Executive Consultant III

A handwritten signature in black ink, appearing to be 'Marlin Scott, Jr.', written in a cursive style.

Marlin Scott, Jr.  
Utilities Engineer

**EXECUTIVE SUMMARY  
LITCHFIELD PARK SERVICE COMPANY  
DOCKET NO. SW-01428A-06-0021**

On January 13, 2006, Litchfield Park Service Company ("LPSCO" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for an extension of its Certificate of Convenience and Necessity ("CC&N") to provide wastewater utility service in portions of Maricopa County, Arizona. On February 8, 2006, Staff filed a Sufficiency Letter indicating that the application had met the sufficiency requirements of Arizona Administrative Code. On February 23, 2006, the LPSCO filed an amended legal description.

LPSCO is an Arizona Corporation, in good standing with the Corporations Division, and engaged in providing water and wastewater utility services to customers in and around the City of Litchfield Park, and including parts of Goodyear, Avondale, and some unincorporated areas of Maricopa County. The original CC&N for the Company was granted by the Commission on January 14, 1955, in Decision Nos. 28660 and 28661 for water and wastewater, respectively. According to the Company's Annual Report for the year ending December 31, 2004, the Company provides water and wastewater utility services to approximately 11,902 and 11,817 customers in Arizona, respectively.

By this application, LPSCO is seeking Commission authority to add six parcels to its CC&N. The request will add approximately 1/4 square-mile to the Company's existing 20.0 square-miles of certificated area. LPSCO serves the City of Litchfield Park, City of Goodyear and the surrounding area in the West Valley, Maricopa County.

Based on Staff's review and analysis of the application, Staff believes that the existing 4.1 million gallon per day Wastewater Treatment Plant capacity is sufficient to serve the existing and proposed CC&N extension areas. LPSCO is in the process of expanding its Wastewater Treatment Plant from 4.1 to 8.2 million gallon per day. Staff also believes that the proposed plant facilities and their cost estimates totaling \$1,303,710 are reasonable. However, no "used and useful" determinations of the proposed plant items were made and no particular treatment should be inferred for rate making or rate base purposes.

Staff recommends the Commission approve LPSCO's application for extension of its existing Certificate of Convenience and Necessity to provide wastewater service in Maricopa County subject to compliance with the following conditions:

1. To require LPSCO to charge its authorized rates and charges in the extension area.
2. To require LPSCO to not charge and/or collect the TPED fee from the developers.
3. To require LPSCO to file with Docket Control, as a compliance item in this docket, a copy of the ATC for the facilities needed to serve each of the parcels (except for Parcel 5) within one year of the effective date of an order in this proceeding.

4. To require LPSCO to file with Docket Control, as compliance items in this docket, a Notice of Filing indicating LPSCO has submitted to Docket Control copies of the APP and Section 208 Plan amendments that indicate approval of the expansion of the WWTP to 8.2 MGD, within one year of the effective date of an order in this proceeding.
5. To require LPSCO to file with Docket Control, as a compliance item in this docket, a copy of Maricopa County franchise agreement for the requested area within 365 days of the decision in this matter.

Staff further recommends that the Commission's Decision granting the requested CC&N extension be considered null and void, after due process, should the Company fail to meet the Condition Nos. 3, 4, and 5 listed above within the time specified.

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ENGINEERING MAP..... B

## **Introduction**

On January 13, 2006, Litchfield Park Service Company ("LPSCO" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for an extension of its Certificate of Convenience and Necessity ("CC&N") to provide wastewater utility service in portions of Maricopa County, Arizona.

On February 8, 2006, Staff filed a Sufficiency Letter indicating that the application had met the sufficiency requirements of A.A.C. R14-2-610.

On February 23, 2006, the LPSCO filed an amended legal description to clearly identify the "Point of Beginning" for Parcel 6.

## **Background**

LPSCO is an Arizona Corporation, in good standing with the Corporations Division, and engaged in providing water and wastewater utility services to customers in and around the City of Litchfield Park, and including parts of Goodyear, Avondale, and some unincorporated areas of Maricopa County. The original CC&N for the Company was granted by the Commission in Decision Nos. 28660 (for water) and 28661 (for wastewater), issued on January 14, 1955. According to the Corporations Division's record, the Company became incorporated on September 21, 1954. According to the Company's Annual Report for the year ending December 31, 2004, the Company provides water and wastewater utility services to approximately 11,902 and 11,817 customers in Arizona, respectively.

LPSCO is a wholly-owned subsidiary of Algonquin Water Resources of America, Inc. ("Algonquin"), which is a wholly-owned subsidiary of Algonquin Power Income Fund. Algonquin's other subsidiaries that are certificated to provide water and/or wastewater utility services in Arizona includes: Bella Vista Water Company, Rio Rico Utilities, Inc., Black Mountain Sewer Company, and Gold Canyon Sewer Company. Altogether, Algonquin's subsidiaries provide water and wastewater utility services to approximately 49,000 customers in Arizona.

By this application, LPSCO is seeking Commission authority to add six parcels to its CC&N. The request will add approximately 1/4 square-mile to the Company's existing 20.0 square-miles of certificated area.

## **The Wastewater System**

According to LPSCO's 2004 Annual Report, LPSCO has a 4.1 million gallon per day ("MGD") activated sludge wastewater treatment plant ("WWTP"), three lift stations, and 255.8 miles of force/collection mains serving 11,817 service laterals. Based on historical growth rates, it is anticipated that the existing service area could grow to approximately 19,000 laterals at the end of five years. In this application, LPSCO has predicted an additional 120 laterals for the

proposed CC&N extension at the end of five years, resulting in a projected total customer base of approximately 19,120 laterals at the end of five years. Based on the existing WWTP capacity, the system can serve approximately 12,810 service laterals.

LPSCO is proposing to extend its wastewater system to the 6 parcels by extension of its collection system using contributions in aid of construction. The proposed plant facilities and their associated costs to extend service to each parcel are as follows:

1. Parcel 1 – Bethany Estates North	\$ 375,960
a. Mains, manholes for 34 lots	
2. Parcel 2 – Bethany Estates South	\$ 129,119
a. Mains, manholes for 28 lots	
3. Parcel 3 – Falcon View	\$ 346,710
a. Mains, manholes for 64 lots	
4. Parcel 4 – Riverside Estates	\$ 334,352
a. Mains, manholes for 80 lots	
5. Parcel 5 – Dysart Village	\$ 109,700
a. Mains, manholes for 39 lots	
6. Parcel 6 – Dysart Crossing – Commercial	
a. Main for 1 tap (contribution)	\$ 3,285
b. Phase II – Casitas Bonitas Facilities – System Improvements, Developer’s pro-rata share	\$ 4,584

=====  
Total: \$1,303,710

Carollo Engineers prepared a Hydraulic Model Analysis on August 22, 2005, entitled “Bethany Estates and Related Sewer Systems Model Analysis” for one of the developers, Maracay Homes. This analysis was to determine whether LPSCO’s existing mains can convey flows to the WWTP from the proposed developments. The analysis concluded that the existing mains could carry the additional flows from the new developments.

Staff concludes that the existing 4.1 MGD WWTP capacity is sufficient to serve the existing customers and proposed CC&N extension areas. LPSCO is in the process of expanding its WWTP from 4.1 to 8.2 MGD. The WWTP expansion is being addressed in another pending LPSCO CC&N extension filing under Docket No. SW-01428A-05-0022. Staff also concludes that the proposed plant facilities and their cost estimates totaling \$1,303,710 are reasonable. However, no “used and useful” determinations of the proposed plant items were made and no particular treatment should be inferred for rate making or rate base purposes.

Litchfield Park Service Company  
Docket No. SW-01428A-06-0021  
Page 3

### **Arizona Department of Environmental Quality ("ADEQ") Compliance**

ADEQ and Maricopa County Environmental Services Department ("MCESD") regulate the wastewater system under Inventory #100310 and have indicated the facility is in compliance with ADEQ regulations.

The MCESD Certificate of Approval to Construct ("ATC") for facilities needed to serve the requested areas have not been submitted to Staff by LPSCO, except for Parcel 5 – Dysart Village. Therefore, Staff recommends that LPSCO be required to file with Docket Control, as a compliance item in this docket, a copy of the ATC for the facilities needed to serve each of the parcels (except for Parcel 5) within one year of the effective date of an order in this proceeding.

LPSCO was issued a signed Aquifer Protection Permit ("APP"), dated October 11, 2001, for its 4.1 MGD WWTP and is in the process of preparing an amendment for expansion of its WWTP from 4.1 to 8.2 MGD which was noted in another LPSCO's extension filing, Docket No. SW-01428A-05-0022. Since an APP and the Section 208 Plan amendments represent fundamental authority for the designation of a wastewater service area and a wastewater provider, Staff recommends that LPSCO file with Docket Control, as compliance items in this docket, a Notice of Filing indicating LPSCO has submitted to Docket Control copies of the APP and Section 208 Plan amendments that indicate approval of the expansion of the WWTP to 8.2 MGD, within one year of the effective date of an order in this proceeding.

### **ACC Compliance**

According to the Utilities Division Compliance Section, LPSCO has no outstanding ACC compliance issues.

### **Treatment Plant and Effluent Disposal ("TPED") Facility Fee**

In LPSCO's last rate proceeding and Decision No. 65436, issued on December 9, 2002; LPSCO was not approved for a wastewater hook-up fee and was further ordered to remove Section K - Off-Site Facilities Hook-Up Fee - Wastewater, as found on Sheet Nos. 21 through 23 in Attachment C to the Settlement Agreement. The proposed hook-up fee in Section K showed a \$1,500 per service connection or Residential Equivalent Unit ("REU"). The REU used was 320 gallons per day. The Decision further ordered LPSCO to file tariffs for hook-up fees for both water and wastewater connections for Commission consideration and possible approval.

In the Application, LPSCO submitted a copy of the Wastewater Facilities Agreement ("Agreement") which it had entered into with each of the developers for construction of plant facilities. In the Agreements, LPSCO requires the developers to pay a TPED facility fee in the amount of \$1,500 per Equivalent Dwelling Unit ("EDU"). The TPED fee will be used to fund the future expansion (reserve capacity) of LPSCO's Palm Valley Water Reclamation Facility and is a non-refundable advance in aid of construction. The Agreements show the cost of the TPED fee as \$4.69 per gallon per day ("GPD") for the average residential unit demand of 320 GPD,

equaling \$1,500 per EDU. It appears the TPED fee numbers and its calculations are the same numbers that were used in the calculation of the non-approved hook-up fee in Decision No. 65436.

Staff considered this TPED fee to be a hook-up fee ("HUF") and since LPSCO does not have an approved HUF tariff for wastewater, this TPED fee should not be charged and/or collected from the developers. If LPSCO wishes to implement the TPED fee, LPSCO should submit a request to the Commission for review and approval of this charge as a hook-up fee as ordered in Decision No. 65436.

### **Proposed Rates**

LPSCO has proposed to provide water utility service to the extension area under its authorized rates and charges.

### **Franchise**

Every applicant for a CC&N and/or CC&N extension is required to submit to the Commission evidence showing that the applicant has received the required consent, franchise or permit from the proper authority, pursuant to ARS 40-282.B. If the applicant operates in an unincorporated area, the company has to obtain the franchise from the County. If the applicant operates in an incorporated area of the County, the applicant has to obtain the franchise from the City/Town.

The extension area is located in an unincorporated area of Maricopa County. As such, Staff recommends that the Company be required to file with Docket Control, as a compliance item in this docket, a copy of Maricopa County franchise agreement for the requested area within 365 days of the decision in this matter.

### **Recommendations**

Staff recommends the Commission approve LPSCO's application for extension of its existing Certificate of Convenience and Necessity to provide wastewater service in Maricopa County subject to compliance with the following conditions:

1. To require LPSCO to charge its authorized rates and charges in the extension area.
2. To require LPSCO to not charge and/or collect the TPED fee from the developers.
3. To require LPSCO to file with Docket Control, as a compliance item in this docket, a copy of the ATC for the facilities needed to serve each of the parcels (except for Parcel 5) within one year of the effective date of an order in this proceeding.

4. To require LPSCO to file with Docket Control, as compliance items in this docket, a Notice of Filing indicating LPSCO has submitted to Docket Control copies of the APP and Section 208 Plan amendments that indicate approval of the expansion of the WWTP to 8.2 MGD, within one year of the effective date of an order in this proceeding.
5. To require LPSCO to file with Docket Control, as a compliance item in this docket, a copy of Maricopa County franchise agreement for the requested area within 365 days of the decision in this matter.

Staff further recommends that the Commission's Decision granting the requested CC&N extension be considered null and void, after due process, should the Company fail to meet the Condition Nos. 3, 4, and 5 listed above within the time specified.

## MEMORANDUM

DATE: March 21, 2006

TO: Blessing Chukwu  
Executive Consultant III

FROM: Marlin Scott, Jr.   
Utilities Engineer

RE: Litchfield Park Service Company – Wastewater Division  
Docket No. SW-01428A-06-0021 (CC&N Extension)

---

### **Introduction**

Litchfield Park Service Company – Wastewater Division (“LPSCo”) has applied to extend its Certificate of Convenience and Necessity (“CC&N”) for its wastewater system. The requested areas, composed of 6 parcels, will add approximately 1/4 square-mile to LPSCo’s existing 20.0 square-miles of certificated area. LPSCo serves the City of Litchfield Park, City of Goodyear and the surrounding area in the West Valley, Maricopa County.

### **Capacity**

#### Existing Utility Plant

According to LPSCo’s 2004 Annual Report, LPSCo has a 4.1 million gallon per day (“MGD”) activated sludge wastewater treatment plant (“WWTP”), three lift stations and 255.8 miles of force/collection mains serving 11,817 service laterals. Based on historical growth rates, it is anticipated that the existing service area could grow to approximately 19,000 laterals at the end of five years. In this application, LPSCo has predicted an additional 120 laterals for the proposed CC&N extension at the end of five years, resulting in a projected total customer base of approximately 19,120 laterals at the end of five years. Based on the existing WWTP capacity, the system can serve approximately 12,810 service laterals.

#### Proposed Plant Facilities

LPSCo is proposing to extend its wastewater system for the 6 parcels by extension of its collection system using contributions in aid of construction. The proposed plant facilities and their associated costs to extend service to each parcel are as follows:

Blessing Chukwu  
March 21, 2006  
Page 2

1. Parcel 1 – Bethany Estates North	\$ 375,960
a. Mains, manholes for 34 lots	
2. Parcel 2 – Bethany Estates South	\$ 129,119
a. Mains, manholes for 28 lots	
3. Parcel 3 – Falcon View	\$ 346,710
a. Mains, manholes for 64 lots	
4. Parcel 4 – Riverside Estates	\$ 334,352
a. Mains, manholes for 80 lots	
5. Parcel 5 – Dysart Village	\$ 109,700
a. Mains, manholes for 39 lots	
6. Parcel 6 – Dysart Crossing – Commercial	
a. Main for 1 tap (contribution)	\$ 3,285
b. Phase II – Casitas Bonitas Facilities – System Improvements, Developer’s pro-rata share	\$ 4,584
	<hr/> <hr/>
	Total: \$1,303,710

#### Hydraulic Model Analysis

Carollo Engineers prepared a hydraulic model analysis on August 22, 2005, entitled “Bethany Estates and Related Sewer Systems Model Analysis” for one of the developers, Maracay Homes. This analysis was to determine whether LPSCo’s existing mains can convey flows to the WWTP from the proposed developments. The analysis concluded that the existing mains could carry the additional flows from the new developments.

#### Conclusion

Staff concludes that the existing 4.1 MGD WWTP capacity is sufficient to serve the existing and proposed CC&N extension areas. LPSCo is also in the process of expanding its WWTP from 4.1 to 8.2 MGD that is being addressed in another pending LPSCo CC&N extension filing under Docket No. SW-01428A-05-0022.

Staff concludes that the proposed plant facilities and their cost estimates totaling \$1,303,710 are reasonable. However, no “used and useful” determinations of the proposed plant items were made and no particular treatment should be inferred for rate making or rate base purposes.

Blessing Chukwu  
March 21, 2006  
Page 3

## **Arizona Department of Environmental Quality ("ADEQ") Compliance**

### Compliance Status

ADEQ and Maricopa County Environmental Services Department ("MCESD") regulate the wastewater system under Inventory #100310 and have indicated the facility is in compliance with ADEQ regulations.

### Certificate of Approval to Construct

The MCESD Certificate of Approval to Construct ("ATC") for facilities needed to serve the requested areas have not been submitted to Staff by LPSCo, with the exception of Parcel 5 - Dysart Village. Staff recommends that LPSCo be required to file with Docket Control, as a compliance item in this docket, a copy of the ATC for facilities needed to service each of the parcels (except for Parcel 5) within one year of the effective date of an order in this proceeding approving the extension.

### Aquifer Protection Permit ("APP") and Section 208 Plan Amendment

LPSCo was issued a signed APP, dated October 11, 2001, for its 4.1 MGD WWTP and is in the process of preparing an amendment for expansion of its WWTP from 4.1 to 8.2 MGD which was noted in another LPSCo extension filing, Docket No. SW-01428A-05-0022. Since an APP and the Section 208 Plan amendments represent fundamental authority for the designation of a wastewater service area and a wastewater provider, Staff recommends that LPSCo file with Docket Control, as compliance items in this docket within one year after a decision is issued in this proceeding, a Notice of Filing indicating LPSCo has submitted to Docket Control copies of the APP and Section 208 Plan amendments that indicates approval of the expansion of the WWTP to 8.2 MGD.

## **Arizona Corporation Commission Compliance**

A check with the Utilities Division Compliance Section showed no outstanding Commission compliance issues for LPSCo.

## **Treatment Plant and Effluent Disposal Facility Fee**

### Discussion

Within the application, LPSCo submitted a copy of a Master Utility Agreement for Wastewater Facilities ("Agreement") for construction of plant facilities. In the Agreement, LPSCo requires the developer to pay a Treatment Plant and Effluent Disposal ("TPED") facility fee in the amount of \$1,500 per Equivalent Dwelling Unit ("EDU"). The TPED fee will be used to fund the future expansion of LPSCo's Palm Valley Water Reclamation Facility and represents a non-refundable advance in aid of construction.

Blessing Chukwu  
March 21, 2006  
Page 4

In LPSCo's last rate proceeding and Decision No. 65436 (dated December 9, 2002); LPSCo was not approved for a wastewater hook-up fee and was further ordered to remove Section K - Off-Site Facilities Hook-Up Fee - Wastewater, as found on Sheet Nos. 21 through 23 on Attachment C to the Settlement Agreement. The proposed hook-up fee in Section K showed a \$1,500 per service connection or Residential Equivalent Unit ("REU"). The REU used was 320 gallons per day. The Decision further ordered LPSCo to file tariffs for hook-up fees for both water and wastewater connections for Commission consideration and possible approval.

In this CC&N extension proceeding, the Agreement shows the cost of the TPED fee is \$4.69 per gallon per day ("GPD") for the average residential unit demand of 320 GPD, (referred to as the EDU), equaling \$1,500 per EDU. It appears the TPED fee numbers and its calculation are the same numbers used in calculating the non-approved hook-up fee in Decision No. 65436.

#### Conclusion

The TPED fee will be used to fund the future expansion (reserve capacity) of LPSCo's Palm Valley Water Reclamation Facility. Since LPSCo does not have an approved TPED fee tariff for wastewater, this TPED fee should not be charged and/or collected from the developers.

Staff considers the TPED fee a hook-up fee. If LPSCo wishes to implement the TPED fee, LPSCo should submit a request to the Commission for review and approval of this charge as a hook-up fee as ordered in Decision No. 65436.

#### **Summary**

#### Conclusions

- A. Staff concludes that the existing 4.1 MGD WWTP capacity is sufficient to serve the existing customers and proposed CC&N extension areas. LPSCo is also in the process of expanding its WWTP from 4.1 to 8.2 MGD that is being addressed in another pending LPSCo CC&N extension filing under Docket No. SW-01428A-05-0022.
- B. Staff concludes that the proposed plant facilities and their cost estimates totaling \$1,303,710 are reasonable. However, no "used and useful" determinations of the proposed plant items were made and no particular treatment should be inferred for rate making or rate base purposes.
- C. ADEQ and MCESD regulate the wastewater system under Inventory #100310 and have indicated the facility is in compliance with ADEQ regulations.

- D. A check with the Utilities Division Compliance Section showed no outstanding Commission compliance issues for LPSCo.

Recommendations

1. Staff recommends that LPSCo be required to file with Docket Control, as a compliance item in this docket, a copy of the ATC for facilities needed to service each of the parcels (except for Parcel 5) within one year of the effective date of an order in this proceeding approving the extension.
2. Staff recommends that LPSCo file with Docket Control, as compliance items in this docket within one year after a decision is issued in this proceeding, a Notice of Filing indicating LPSCo has submitted to Docket Control copies of the APP and Section 208 Plan amendments that indicates approval of the expansion of the WWTP to 8.2 MGD.
3. The TPED fee will be used to fund the future expansion (reserve capacity) of LPSCo's Palm Valley Water Reclamation Facility. Since LPSCo does not have an approved TPED fee tariff for wastewater, this TPED fee should not be charged and/or collected from the developers.

Staff considers the TPED fee a hook-up fee. If LPSCo wishes to implement the TPED fee, Staff recommends that LPSCo submit a request to the Commission for review and approval of this charge as a hook-up fee as ordered in Decision No. 65436.



0000050973

BEFORE THE ARIZONA CORPORATION COMMISSION

DOCKETED

COMMISSIONERS

JUN 05 2006

JEFF HATCH-MILLER, Chairman  
WILLIAM A. MUNDELL  
MARC SPITZER  
MIKE GLEASON  
KRISTIN K. MAYES

DOCKETED BY RB

IN THE MATTER OF THE APPLICATION OF  
LITCHFIELD PARK SERVICE COMPANY FOR  
AN EXTENSION OF ITS CERTIFICATE OF  
CONVENIENCE AND NECESSITY TO PROVIDE  
WASTEWATER SERVICE IN MARICOPA  
COUNTY, ARIZONA.

DOCKET NO. SW-01428A-06-0021

DECISION NO. 68744

OPINION AND ORDER

DATE OF HEARING: April 27, 2006  
PLACE OF HEARING: Phoenix, Arizona  
ADMINISTRATIVE LAW JUDGE: Marc E. Stern  
APPEARANCES: Sallquist, Drummond & O'Connor, by Richard L. Sallquist, on behalf of Litchfield Park Service Company; and  
Mr. David Ronald, Staff Attorney, Legal Division, on behalf of the Utilities Division of the Arizona Corporation Commission.

BY THE COMMISSION:

On January 13, 2005, Litchfield Park Service Company ("LPSCO" or "Applicant") filed an application for an extension of its Certificate of Convenience and Necessity ("Certificate") to provide public wastewater utility service to various parts of Maricopa County, Arizona.

On February 8, 2006, the Commission's Utilities Division ("Staff") filed a notice of administrative completeness that LPSCO's application had met the sufficiency requirements of A.A.C. R14-2-610.

On February 9, 2006, by Procedural Order, the above-captioned matter was scheduled for hearing on April 27, 2006, and Applicant was ordered to publish notice of the application and hearing thereon.

On February 13, 2006, Staff filed a request for an extension of time to file its Staff Report.

On February 16, 2006, LPSCO filed a response indicating that it did not oppose this request.

1 On February 17, 2006, by Procedural Order, Staff's request was granted.

2 On March 14, 2006, Applicant filed certification that it had provided public notice pursuant to  
3 the terms of the Commission's Procedural Order.

4 On April 27, 2006, a full public hearing was convened before a duly authorized  
5 Administrative Law Judge of the Commission at its offices in Phoenix, Arizona. LPSCO and Staff  
6 appeared with counsel. At the conclusion of the hearing, the matter was taken under advisement  
7 pending submission of a Recommended Opinion and Order to the Commission.

8 \* \* \* \* \*

9 Having considered the entire record herein and being fully advised in the premises, the  
10 Commission finds, concludes, and orders that:

11 **FINDINGS OF FACT**

12 1. Pursuant to authority granted by the Commission, LPSCO<sup>1</sup> is engaged in providing  
13 public water service to approximately 11,902 customers and public wastewater service to  
14 approximately 11,817 customers in various parts of the Cities of Goodyear, Litchfield Park,  
15 Avondale and various unincorporated areas of Maricopa County, Arizona.

16 2. On January 13, 2006, LPSCO filed an application in which it seeks Commission  
17 approval to extend its wastewater Certificate to various unincorporated portions of Maricopa County,  
18 Arizona, which areas are described more fully in Exhibit A, attached hereto and incorporated by  
19 reference.

20 3. The area for which LPSCO is seeking an extension of its Certificate to provide  
21 wastewater service is comprised of six parcels of land that will add approximately one-quarter of a  
22 square mile (approximately 160 acres) to its already existing 20 square mile certificated service area.

23 4. Applicant provided notice of the application and hearing thereon in the manner  
24 prescribed by law.

25 5. Five of the six parcels for which Applicant is requesting certification are being  
26 developed by developers who plan to develop the parcels into a total of 245 residential lots. The  
27

28 

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1 LPSCO is a wholly owned subsidiary of Algonquin Water Resources of America, Inc.

1 sixth parcel consists of three acres which is being developed for commercial use.

2 6. LPSCO projects that residential development in the area described in Exhibit A will  
3 result in approximately 120 new wastewater connections in five years.

4 7. With respect to the area sought to be certificated, LPSCO presently has an existing  
5 activated sludge wastewater treatment plan ("WWTP") with a 4.1 million gallons per day capacity  
6 that can service approximately 12,810 customers. This wastewater facility has the capacity to  
7 accommodate existing customers and future customers in the extension area.

8 8. The customers in the extension area will be provided with water service by Valley  
9 Utilities.

10 9. LPSCO employs full-time certified operators for its wastewater facility.

11 10. Since the six parcels for which LPSCO is requesting an extension for its wastewater  
12 Certificate herein are located only in unincorporated areas of Maricopa County, LPSCO will obtain a  
13 county franchise upon the issuance of an extension of its Certificate to provide service.

14 11. LPSCO will charge customers in the parcels sought to be certificated herein its  
15 existing rates and charges.

16 12. In the areas sought to be certificated herein, LPSCO will finance the extension of its  
17 collection system by means of contributions in aid of construction.

18 13. LPSCO is current on its filings with the Commission and the payment of its property  
19 taxes.

20 14. LPSCO is in compliance with the rules of the Arizona Department of Environmental  
21 Quality ("ADEQ"), the Arizona Department of Water Resources ("ADWR"), and also the rules of the  
22 Maricopa County of Environmental Services Department ("MCESD").

23 15. LPSCO will file copies of the MCESD Certificate(s) of Approval to Construct  
24 ("CAC") for the five residential parcels in the future. LPSCO previously filed a copy of the CAC for  
25 the commercial parcel included in this proceeding with its Application.

26 16. While LPSCO has the existing capacity to provide wastewater service to the area  
27 described in Exhibit A, Applicant is in the process of planning the expansion of its WWTP from a  
28 treatment capacity of 4.1 million gallons per day ("MGD") to 8.2 MGD to service a total projected

1 customer base of in excess of 19,000 customers after five years in its service area. The expansion of  
2 LPSCO's WWTP is being addressed in another pending Certificate extension proceeding in Docket  
3 No. SW-01428A-05-0022.

4 17. On October 11, 2001, LPSCO was issued an Acquifer Protection Permit ("APP") for  
5 its 4.1 MGD WWTP. Applicant is preparing to secure an amendment of its APP and its 208 Plan  
6 when it expands its WWTP to 8.2 MGD.

7 18. On December 9, 2002, the Commission issued Decision No. 65436, in which  
8 LPSCO's current rates and charges were approved. However, at that time, a proposed Off-Site  
9 Facilities Hook-Up Fee-Wastewater ("HUF") of \$1,500 for new wastewater connections in areas  
10 where a developer requested inclusion in LPSCO's certificated service area to meet the cost of plant  
11 associated with the demand placed on the system by the new development was disallowed. LPSCO  
12 was further ordered to "file, by April 15, 2003, tariffs for hook-up fees for both water and wastewater  
13 connections for Commission consideration and possible approval."

14 19. With this Application, LPSCO submitted a copy of the Wastewater Facilities  
15 Agreement ("WFA") which it had entered into with each developer for the construction of plant  
16 facilities. The proposed facilities and associated costs to extend service total \$1,303,710. The WFAs  
17 further require each developer to pay a Treatment Plant and Effluent Disposal Fee ("TPED") of  
18 \$1,500 per Equivalent Dwelling Unit ("EDU") for each new connection in an extension area.<sup>2</sup>

19 20. During the hearing, LPSCO's vice-president and general manager testified that  
20 Applicant has thus far collected \$277,123 for TPEDs from five of the six developers for the parcels  
21 described in Exhibit A, and that the developer of the remaining parcel is to pay \$120,000.

22 21. Staff found that the proposed TPED of \$1,500 per EDU appears to be based on the  
23 same calculations disallowed in Decision No. 65436 and considers the TPED to be a HUF which  
24 should not be charged or collected from developers, unless approved by the Commission.

25 22. Staff continues to recommend that LPSCO should submit a request to the Commission  
26 for its review and approval of the TPED as a HUF as ordered by Decision No. 65436 if LPSCO

27  
28 <sup>2</sup> According to the Staff Report, the TPED is to be used to fund future expansion (reserve capacity) of LPSCO's Palm Valley Reclamation Facility and it is to be classified as a non-refundable advance in aid of construction.

1 wishes to charge this fee.

2 23. Staff is recommending approval of LPSCO's application to extend its Certificate to  
3 provide wastewater service to the six parcels described in Exhibit A.

4 24. Staff is also recommending the following:

- 5 • that LPSCO not charge or collect the TPED fee from developers;
- 6 • that LPSCO file, within 365 days of the effective date of this Decision, with the  
7 Commission's Docket Control, as a compliance item in this Docket, a copy of its  
8 Maricopa County franchise for the extension area;
- 9 • that LPSCO file, within 365 days of the effective date of this Decision, with the  
10 Commission's Docket Control, as a compliance item in this Docket, copies of the  
11 CAC(s) issued by the MCESD to serve the parcels described above; and
- 12 • that LPSCO file, within 365 days from the effective date of this Decision, with the  
13 Commission's Docket Control, as a compliance item in this Docket, copies of its  
14 amended APP and amended Section 208 Plan that indicate approval of Applicant's  
15 expansion of its WWTP from 4.1 MGD to 8.2 MGD.

16 25. Staff further recommends that the Commission's approval of an extension of LPSCO's  
17 wastewater Certificate to provide service to the area described in Exhibit A should be rendered null  
18 and void if Applicant fails to meet any of the above conditions in the time specified.

19 26. Because an allowance for the property tax expense of LPSCO is included in the  
20 Company's rates and will be collected from its customers, the Commission seeks assurances from the  
21 Company that any taxes collected from ratepayers have been remitted to the appropriate taxing  
22 authority. It has come to the Commission's attention that a number of utility companies have been  
23 unwilling or unable to fulfill their obligation to pay the taxes that were collected from ratepayers,  
24 some for as many as twenty years. It is reasonable, therefore, that as a preventive measure LPSCO  
25 annually file, as part of its annual report, an affidavit with the Utilities Division attesting that the  
26 company is current in paying its property taxes in Arizona.

27 27. Based upon our review of the record, we believe that Staff's recommendations herein  
28 are reasonable and should be adopted. We further believe that LPSCO should deposit all monies

1 previously collected under its unauthorized TPED into a separate account and collect no such funds  
2 in the future unless LPSCO submits its TPED in the form of a proposed tariff to the Commission for  
3 approval and is subsequently authorized to do so.

4 28. In recognition of ongoing drought conditions in Arizona, the Company shall provide  
5 the Commission within one year of the effective date of this order a detailed report describing the  
6 Company's progress toward working with the water provider for the extension area, Valley Utilities,  
7 to increase the use of effluent specifically as it pertains to golf courses, ornamental lakes and other  
8 aesthetic water features. This report shall be filed each January beginning in 2007 with the  
9 Commission's Docket Control until the Company's next general rate case.

10 CONCLUSIONS OF LAW

11 1. Applicant is a public service corporation within the meaning of Article XV of the  
12 Arizona Constitution and A.R.S. §§ 40-252, 40-281 and 40-282.

13 2. The Commission has jurisdiction over the Applicant and of the subject matter of the  
14 application.

15 3. Notice of LPSCO's application as described herein was given in the manner  
16 prescribed by law.

17 4. The public convenience and necessity require and the public would benefit by the  
18 extension of LPSCO's wastewater Certificate so that its certificated service area will include the  
19 extension area as described in Exhibit A.

20 5. The Applicant is a fit and proper entity to receive an amended wastewater Certificate  
21 which encompasses the area more fully described in the extension area in Exhibit A.

22 6. LPSCO's application for the extension of its wastewater Certificate should be  
23 approved as recommended by Staff in Findings of Fact Nos. 24 and 25.

24 7. LPSCO should deposit all monies collected from developers under its unauthorized  
25 TPED into a separate account and collect no such funds in the future unless it submits a tariff and is  
26 authorized to do so by the Commission.

27 ...

28 ...

**ORDER**

1  
2 IT IS THEREFORE ORDERED that the application of Litchfield Park Service Company for  
3 an extension of its Certificate of Convenience and Necessity to provide wastewater service with  
4 respect to the extension area more fully described in Exhibit A be, and is hereby, approved, provided  
5 that Litchfield Park Service Company complies with the conditions as set forth in Findings of Fact  
6 Nos. 24 and 25.

7 IT IS FURTHER ORDERED that Litchfield Park Service Company shall charge those  
8 customers in the extension area more fully described in Exhibit A its existing rates and charges for  
9 wastewater until further Order by the Commission.

10 IT IS FURTHER ORDERED that in the event Litchfield Park Service Company does not  
11 timely file copies of the required documentation as described in Findings of Fact Nos. 24 and 25, then  
12 the extension granted herein shall be rendered null and void after due process.

13 IT IS FURTHER ORDERED that Litchfield Park Service Company shall deposit all monies  
14 collected from developers under its unauthorized Treatment Plan and Effluent Disposal Fee into a  
15 separate account and file certification of same, within 30 days of the effective date of this Decision  
16 with the Commission's Docket Control, as a compliance item in this Docket.

17 IT IS FURTHER ORDERED that if Litchfield Park Service Company shall file, within 30  
18 days of the effective date of this Decision, with the Commission's Docket Control, a proposed tariff  
19 for its Treatment Plan and Effluent Disposal Fee for Commission approval.

20 IT IS FURTHER ORDERED that in the event the Treatment Plan and Effluent Disposal Fee  
21 is not approved by the Commission, Litchfield Park Service Company shall then promptly refund any  
22 monies collected thereunder to the developers who paid them, and file, within 30 days of said  
23 disapproval, with the Commission's Docket Control, as a compliance item in this Docket,  
24 certification of the refund together with the names and addresses of the developers and the amounts  
25 refunded.

26 ...  
27 ...  
28 ...

1 IT IS FURTHER ORDERED that Litchfield Park Service Company shall annually file as part  
2 of its annual report, an affidavit with the Utilities Division attesting that the Company is current in  
3 paying its property taxes in Arizona.

4 IT IS FURTHER ORDERED that in recognition of ongoing drought conditions in Arizona,  
5 the Company shall provide the Commission within one year of the effective date of this order a  
6 detailed report describing the Company's progress toward working with the water provider for the  
7 extension area, Valley Utilities, to increase the use of effluent specifically as it pertains to golf  
8 courses, ornamental lakes and other aesthetic water features. This report shall be filed each January  
9 beginning in 2007 with the Commission's Docket Control until the Company's next general rate case.

10 IT IS FURTHER ORDERED that this Decision shall become effective immediately.

11 BY ORDER OF THE ARIZONA CORPORATION COMMISSION.

12   
13  
14 CHAIRMAN

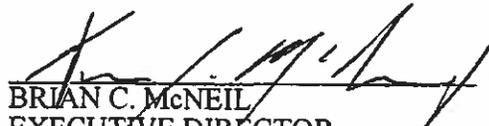
COMMISSIONER

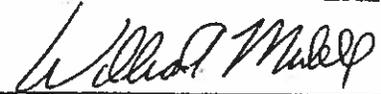
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17 COMMISSIONER

  
COMMISSIONER

  
COMMISSIONER

18  
19 IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive  
20 Director of the Arizona Corporation Commission, have  
21 hereunto set my hand and caused the official seal of the  
22 Commission to be affixed at the Capitol, in the City of Phoenix,  
23 this 5<sup>th</sup> day of June, 2006.

  
24 BRIAN C. McNEIL  
25 EXECUTIVE DIRECTOR

26  
27 DISSENT 

28 DISSENT \_\_\_\_\_

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SERVICE LIST FOR: LITCHFIELD PARK SERVICE COMPANY

DOCKET NO.: SW-01428A-06-0021

Richard L. Sallquist  
SALLQUIST, DRUMMOND & O'CONNOR  
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Legal Division  
ARIZONA CORPORATION COMMISSION  
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Ernest G. Johnson, Director  
Utilities Division  
ARIZONA CORPORATION COMMISSION  
1200 West Washington  
Phoenix, AZ 85007

## LEGAL DESCRIPTION

That portion of the East half of the Southwest quarter of Section 11, Township 2 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, more particularly described as follows:

BEGINNING at the Center of said Section 11;  
THENCE South 00°01'43" East, along the East line of said quarter, a distance of 1450.82 feet;  
THENCE South 89°58'09" West, a distance of 1301.90 feet to the West line of said East half;  
THENCE North 00°02'38" West, along said line, a distance of 1470.76 feet to the North line of said quarter;  
THENCE South 89°09'12" East, along said line, a distance of 1302.45 feet to the POINT OF BEGINNING.

Said parcel containing 43.67 acres gross.



Parcel 1

Exhibit A

DECISION NO. 68744

## LEGAL DESCRIPTION

A PARCEL OF LAND LYING IN THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 2 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTH QUARTER CORNER OF SAID SECTION 11, FROM WHICH THE SOUTHWEST CORNER THEREOF BEARS NORTH 89 DEGREES 01 MINUTES 47 SECONDS WEST, A DISTANCE OF 2603.69 FEET, AND THE TRUE POINT OF BEGINNING; THENCE NORTH 89 DEGREES 01 MINUTES 47 SECONDS WEST, ALONG THE SOUTH LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 1301.79 FEET; THENCE NORTH 00 DEGREES 02 MINUTES 38 SECONDS WEST, A DISTANCE OF 1157.29 FEET; THENCE NORTH 89 DEGREES 58 MINUTES 9 SECONDS EAST, A DISTANCE OF 1301.90 FEET TO A POINT ON THE NORTH SOUTH MID SECTION LINE OF SAID SECTION 11; THENCE SOUTH 0 DEGREES 01 MINUTES 43 SECONDS EAST, A DISTANCE OF 1180.04 FEET TO THE TRUE POINT OF BEGINNING.

SAID PARCEL CONTAINS 1,521,306 SQUARE FEET (34.924 ACRES) GROSS AREA.

Parcel 2

DECISION NO. 68744

## LEGAL DESCRIPTION

That portion of the Northeast quarter of Section 11, Township 2 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, more particularly described as follows:

COMMENCING at the Northeast corner of said Section;

THENCE North 89°18'03" West, along the North line of said Section, a distance of 1303.39 feet to the Northeast corner of the West half of said Northeast quarter;

THENCE South 00°01'27" East, along the East line of said West half, a distance of 658.54 feet to the POINT OF BEGINNING;

THENCE continuing South 00°01'27" East, along said East line, a distance of 1975.62 feet to a point on the South line of said quarter;

THENCE North 89°10'20" West, along said South line, a distance of 651.16 feet to a point on the West line of the East half of said West half;

THENCE North 00°02'10" West, along said West line, a distance of 1974.53 feet;

THENCE South 89°16'08" East, a distance of 651.56 feet to the POINT OF BEGINNING.

Said parcel containing 29.53 acres gross.



Parcel 3

DECISION NO. 68744

**RIVERSIDE ESTATES**

**LEGAL DESCRIPTION**

That portion of The Southeast Quarter of Section 11, Township 2 North, Range 1 West of the Gila and Salt River Meridian, Maricopa County, Arizona, described as follows:

Commencing at the East Quarter Corner of said Section 11 said point being the.

**TRUE POINT OF BEGINNING;**

Thence South 00 degrees 00 minutes 32 seconds East along the East line of said Section 11 a distance of 1318.56 feet;

Thence North 89 degrees 06 minutes 15 seconds West a distance of 1301.91 feet;

Thence North 00 degrees 01 minutes 39 seconds West a distance of 1317.01 feet to a point on the East-West Midsection line of said Section 11;

Thence South 89 degrees 10 minutes 20 seconds East along said Midsection line a distance of 1302.32 feet;

to the **POINT OF BEGINNING.**

The above described parcel contains 1,715,709.41Sq. Ft. (39.39 acres) more or less.

Prepared by: CMX, L.L.C.

Project No. 7038

April 28, 2004

**Parcel 4**

**DECISION NO 68744**

**DYSART VILLAGE**  
**LEGAL DESCRIPTION**

PORTION OF THE SW ¼ OF SECTION 11, T 2N, R 1 W OF THE G&SRB&M, MARICOPA COUNTY  
DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST ¼ CORNER OF SAID SECTION 11

- BEARING: S 89° 05' 41" E ALONG THE EAST-WEST MID-SECTION LINE OF SAID SECTION 11 A  
DISTANCE OF 1302.50 FEET TO THE NE CORNER OF THE NW ¼ OF THE SAID SECTION 11
- BEARING: S 0° 00' 54" W A DISTANCE OF 985.53 FEET TO THE SE CORNER OF THE N ½ OF  
THE S ½ OF THE NW ¼ OF THE SW ¼ OF SAID SECTION 11
- BEARING: N 89° 02' 59" W A DISTANCE OF 1302.36 FEET TO THE SW CORNER OF THE N ½  
OF THE S ½ OF THE NW ¼ OF THE SW ¼ OF SAID SECTION 11
- BEARING: N 0° 00' 19" E ALONG THE WEST BOUNDARY OF SAID SECTION 11 A DISTANCE OF  
984.50 FEET TO THE POINT OF BEGINNING.

**Parcel 5**

..... 68744

# SITE INFO:

## PROJECT NAME:

DYSART CROSSINGS

## PROJECT ADDRESS:

NOT YET ASSIGNED

## PARCEL NUMBER:

#501-57-006-H

## LEGAL DESCRIPTION:

THE EAST 300 FEET OF THE NORTH 464 FEET OF THAT PART OF THE NORTHEAST QUARTER OF SECTION TEN (10), TOWNSHIP TWO (2) NORTH, RANGE ONE (1) WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA

BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 10;

THENCE SOUTH 0 DEGREES 01 MINUTES 45 SECONDS WEST ALONG THE EAST LINE OF SAID SECTION 10, A DISTANCE OF 708.00 FEET, TO A POINT FROM WHICH THE EAST QUARTER CORNER OF SAID SECTION 10 BEARS SOUTH 0 DEGREES 01 MINUTES 45 SECONDS WEST A DISTANCE OF 1,917.52 FEET; THE POINT OF BEGINNING.

THENCE NORTH 89 DEGREES 10 MINUTES 45 SECONDS WEST, A DISTANCE OF 905.16 FEET;

THENCE SOUTH 0 DEGREES 01 MINUTES 45 SECONDS WEST, A DISTANCE OF 441.93 FEET TO A POINT ON THE NORTH LINE OF RANCHOS DE LOMA UNIT ONE, AS RECORDED IN BOOK 106 OF MAPS, PAGE 39 OF MARICOPA COUNTY, RECORDS, SAID POINT BEING THE CENTERLINE OF 132ND AVENUE;

THENCE SOUTH 89 DEGREES 10 MINUTES 45 SECOND EAST, A DISTANCE OF 25 FEET TO A CORNER OF SAID RANCHOS DE LOMA UNIT ONE;

THENCE SOUTH 0 DEGREES 01 MINUTE 45 SECONDS WEST, A DISTANCE OF 205.60 FEET;

THENCE ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A CENTRAL ANGLE OF 89 DEGREES 03 MINUTES 55 SECONDS, A RADIUS OF 15.25 FEET, A DISTANCE OF 23.70 FEET;

THENCE SOUTH 89 DEGREES 02 MINUTES 10 SECONDS EAST, ALONG THE NORTH RIGHT-OF-WAY LINE OF OCOTILLO ROAD AS SHOWN ON THE PLAT OF SAID RANCHOS DE LOMA, A DISTANCE OF 865.19 FEET;

THENCE NORTH 0 DEGREES 01 MINUTES 45 SECONDS EAST PARALLEL TO AND 55.00 FEET WEST OF THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 10, A DISTANCE OF 664.72 FEET TO THE POINT OF BEGINNING.

Parcel 6

September 28, 2012

TO: Members of the MAG Management Committee

FROM: Julie Hoffman, Environmental Planning Program Manager

SUBJECT: MAG 208 WATER QUALITY MANAGEMENT PLAN UPDATE ON HOLD UNTIL  
NEW MAG SOCIOECONOMIC PROJECTIONS ARE AVAILABLE

The Maricopa Association of Governments has been revising the Point Source Section of the MAG 208 Water Quality Management Plan, which describes the preferred wastewater treatment system to serve the wastewater treatment needs of the area over a twenty year time period. The purpose of the update is to include 35 wastewater treatment plants approved by the MAG Regional Council since the Plan was last updated in 2002. The 2007 MAG socioeconomic projections and Municipal Planning Areas approved in 2007 were also included. Presently, MAG is in the process of developing new socioeconomic projections based on the 2010 Census, which will be available in 2013. At this time, the update to the Point Source Section of the MAG 208 Plan is on hold until the new MAG socioeconomic projections become available.

The Point Source Section Update of the MAG 208 Water Quality Management Plan has been substantially completed. In April 2011, the draft descriptions were sent to the jurisdictions for review. The MAG member agencies reviewed the descriptions and provided any necessary revisions to be consistent with their wastewater treatment plans. However, concern was expressed with using the 2007 MAG socioeconomic projections. Due to the 2010 Census results and the economic downturn, the last set of projections are out of date and MAG is currently in the process of preparing new projections based on the 2010 Census. The next set of projections are anticipated to be completed in 2013. Once these projections are approved by the MAG Regional Council, the Plan will be updated to include the new projections.

The 208 Plan is the key guiding document used by Maricopa County and the Arizona Department of Environmental Quality in granting permits for wastewater treatment systems in the MAG region. It is important that the Plan accurately reflect the wastewater treatment needs of the region over the twenty year planning period. Following approval of the new projections and inclusion in the update, the draft descriptions will be provided for a final review.

If you have any questions please contact me at (602) 254-6300 or [jhoffman@azmag.gov](mailto:jhoffman@azmag.gov).

cc: MAG Intergovernmental Representatives  
MAG Water Quality Advisory Committee