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**DRAFT**  
**Central Arizona Association of Governments (CAAG)**  
**208 Areawide Water Quality Management Plan**  
**Town of Miami Wastewater Reclamation Facility**  
**Miami, Arizona**  
**CAAG 208 ID# 2010-1**

**June 2009**  
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**Prepared for:**

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**CAAG 208 ID# 2010-1**  
**DRAFT CAAG 208 WATER QUALITY MANAGEMENT PLAN AMENDMENT**  
**TOWN OF MIAMI - WASTEWATER RECLAMATION FACILITY**

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## **1.0 INTRODUCTION**

### **1.1 Abstract**

In accordance with Section 208 of the Clean Water Act (CWA), the Central Arizona Association of Governments (CAAG) is designated as the Areawide Water Quality Management Planning Agency for Gila and Pinal Counties. The Town of Miami (Town), in cooperation with Freeport-McMoRan Miami Inc. (FMMI), is requesting approval of this Draft CAAG 208 Water Quality Management Plan Amendment (CAAG 208 Plan Amendment) for a proposed wastewater reclamation facility (WRF) to be located in Section 16 of Township 1 North, Range 15 East of the Gila and Salt River Meridian, Gila County, Arizona.

The Town passed a resolution in 1978 to establish the Town's current Designated Management Area (DMA) boundary. This CAAG 208 Plan Amendment is not proposing any expansion to this boundary.

The proposed WRF has a design capacity of 640,000 gallons per day (gpd) will be built in one phase and replace the Town's existing wastewater treatment system. The proposed WRF will be an Arizona Department of Environmental Quality (ADEQ) prescriptive best available demonstrated control technology (BADCT) facility utilizing a complete mix activated sludge treatment technology (i.e., extended aeration). The proposed WRF will treat the Town's existing wastewater consisting mainly of residential and commercial area flows. Class A+ effluent generated by the proposed WRF will be beneficially reused for golf course irrigation or mining operations, or may be infiltrated or discharged as proposed in this CAAG 208 Plan Amendment. The sludge generated from the proposed WRF will be dewatered and stored at onsite drying bed(s) prior to disposal at a nearby landfill, or may be land applied for use in mine reclamation projects.

The proposed WRF will be constructed on approximately two acres of FMMI-owned property that will be conveyed to the Town along with necessary easements for Town access to the proposed WRF. The Town will be the owner and operator of the proposed WRF. FMMI is the community partner providing support to the Town.

Appendix A provides the 'CAAG 208 Plan Amendment Checklist' summary of Plan Amendment application requirements and how they are addressed in this document.

### **1.2 History of the Project**

The Town's existing wastewater treatment system is an approximately 26-acre passive aerobic lagoon treatment system located on the top southeastern area of FMMI's Tailing Impoundment No. 3, as shown on Appendix B - Figure 1. The Town's wastewater flows are collected and conveyed by a network of sewerlines and ultimately delivered to an influent pump station (Pump Station) located at the base of the southeast corner of Tailing Impoundment No. 3. The Pump Station pump system conveys wastewater flows to the top of the tailing impoundment where it passes through a static hydroscreen pretreatment unit that removes large solid materials. From

the hydroscreen unit, the wastewater flow is discharged via gravity pipes in series to three lagoons. The combined capacity of lagoons and overflow ponds is approximately 35 million gallons (MG). The existing WRF is a non-discharging facility that balances wastewater inflow passively through evaporation and percolation. The existing wastewater treatment system was constructed in 1980 and is currently permitted under the Town's July 3, 2001 Wastewater Treatment Plant Aquifer Protection Permit (APP) No. P-100814. The permitted capacity of the Town's existing wastewater treatment system under this APP is 330,000 gpd.

According to the APP application for the existing wastewater treatment system (Woodward-Clyde, October 1997), the age of the facility has resulted in sludge deposition and some loss of treatment capacity. FMMI, in cooperation with the Town, is proposing closure of the existing wastewater treatment system once the proposed WRF is in operation, which will increase the treatment capacity.

## **2.0 PROJECT DESCRIPTION**

### **2.1 Overview**

#### **2.1.1. Facility Ownership**

The site for the proposed WRF including the wastewater delivery system (i.e., forcemain, Pump Station, etc.) is located within FMMI's property boundary. FMMI will deed the proposed WRF site and grant necessary easements/rights-of-way to the Town. A legal description of the site is provided in Appendix C-1.

#### **2.1.2. Type of Facility**

The proposed WRF is an extended aeration (i.e., modified activated sludge process) facility with a design capacity of 640,000 gpd. A conceptual layout of the proposed WRF extended aeration system components is presented in Appendix B - Figure 2. The system components will include: headworks, anoxic and aeration chambers, clarifier, sludge holding tank, filtration and disinfection units. The sludge dewatering will be achieved using a skid mounted belt filter press with slurry feed pump, wash water pump, and polymer conditioning system.

#### **2.1.3. Build-out Capacity**

The proposed WRF will be built in one phase and will provide the proposed design/build-out capacity of 640,000 gpd after system start-up.

#### **2.1.4 Service Area Size**

The proposed WRF will serve areas that are currently being served by the existing wastewater treatment system. The 1.24 square mile service area includes approximately 0.92 square miles of area within the Town limit and approximately 0.32 square miles of areas outside the Town limit, as shown in Appendix B - Figure 3.

## **2.2 Service Area Description**

### **2.2.1 Location**

#### **A. Legal**

A legal description of the site is provided in Appendix C-1.

#### **B. Physical Address**

Currently, the proposed WRF does not have a physical address.

#### **C. Designated Management Area**

As noted in Section 1.1, the Town passed a resolution in 1978 to establish the Town's current DMA boundary which includes areas within the Town limit. This CAAG 208 Plan Amendment is not proposing any expansion to this boundary.

#### **D. Neighboring Communities**

The proposed WRF is located in southern Gila County, Arizona. The municipalities and sanitary districts in the vicinity of the proposed WRF are: the Town of Miami, the City of Globe (Globe), an unincorporated portion of Gila County (Claypool) and the Pinal and Cobre Valley Sanitary Districts, as shown on Appendix B - Figures 3 and 5.

### **2.2.2 Area of Service Area**

As noted in Section 2.1.4, the service area for the proposed WRF is approximately 1.24 square miles.

## **2.3 Make-up of Service Area**

### **2.3.1 Number of Dwelling Units and Consumers Serviced at Build-out**

According to the United States Census 2000 data, there are 1,936 residents and 754 occupied dwelling units within the Town's current service area. Based on these data, the persons per dwelling unit is approximately 2.57. The current commercial properties count of 211 units was obtained from the Town's Engineering Department.

Assuming a life expectancy of 30 years for the proposed WRF, the population projection for year 2040 is 2,132. This estimate is based on the Arizona Department of Commerce 2006-2055 Gila Sub-County Population Projections. Based on the current persons per dwelling unit estimate of 2.57, the number of dwelling units for year 2040 is estimated at 830. The Town is projecting 240 future commercial units for year 2040.

### **2.3.2 Land Use – Existing and Projected/Anticipated**

#### **A. Residential, Commercial, etc.**

The proposed service areas include approximately 95% residential and 5% commercial land uses.

#### **B. Density**

As noted in Section 2.1.4, the Town's existing service area includes approximately 0.92 square miles or 589 acres of area within the Town limit and approximately 0.32 square miles or 205 acres of areas outside the Town limit resulting in a total of approximately 1.24 square miles or 794 acres. The Town currently serves 754 dwelling units. The Town's Preliminary Comprehensive Land Use Plan shown in Appendix B – Figure 4 does not provide dwelling unit per acre (density) information for the Town. However, the majority of the Town's service area is single family residential. The density designation identified in the Gila County Comprehensive Plan (December 4, 2003) is used for the classification of the density for the Town. Based on the service area within the Town limit and the current dwelling unit count, the overall density within the Town limit is approximately 1.3. The Town has a small service area where the density is approximately 3.2 (32 homes on a 10-acre mobile home park).

The Gila County Comprehensive Plan identifies residential areas with 1.0-3.5 dwelling units per acre as low-density residential. Based on this classification, the Town's residential area is mainly low-density residential.

As noted in Section 2.3.2 (A), the Town's service area includes approximately 95% residential and 5% commercial land uses. The commercial land uses include areas like Safeway, Wal-Mart, Miami High School, and Cobre Valley Hospital. A land use map showing the residential and commercial areas is included in Appendix B – Figure 4.

#### **C. Ownership of Land**

The proposed WRF service area will include approximately 0.92 square miles of area within the Town limit and approximately 0.32 square miles of existing service areas situated outside the Town limit, as shown in Appendix B - Figure 3.

The site for the proposed WRF including the wastewater delivery system (i.e., forcemain, Pump Station, etc.) is within FMMI's property boundary. FMMI will deed the proposed WRF site and grant necessary easements/rights-of-way to the Town.

### **2.3.3 Population Projections**

Per the United States Census 2000 data, the current population of the Town's service area is approximately 1,936. According to the Arizona Department of Commerce 2006-2055 Gila Sub-

County Population Projections, the population for the Town for year 2040 is projected at approximately 2,132.

### **3.0 DESIGNATED MANAGEMENT AGENCY**

#### **3.1 Sewer Master Plan**

##### ***3.1.1 Description of 20-Year Master Plan Goals***

Currently, the Town does not have a formal comprehensive sewer master plan. However, the Town is working towards three goals aligned with master planning objectives: planning for the repair and/or replacement of its existing collection system; closing of the antiquated existing wastewater treatment system; and construction of a new proposed WRF. The Town is currently obtaining grants to map the existing collection system and will ultimately develop a master plan that will identify the Town's master plan goals in detail.

##### ***3.1.2 Plans for Collection, Treatment of Wastewater***

The Town will continue to use the existing network of sewerlines to collect wastewater and ultimately deliver it to the existing Pump Station. The Pump Station will then convey wastewater flows to the proposed WRF through a newly-installed forcemain. The wastewater will then be treated using the extended aeration treatment system.

This CAAG 208 Plan Amendment does not propose any expansion of sewer service area beyond those areas presently served by the Town. The existing service areas include the Town limits and a narrow corridor to the east of the Town limits as shown in Appendix B – Figure 3 - Service Area Map. According to Town representatives, there are no septic systems within the Town limits. Whether the Town has legal authority to require septic systems situated outside the Town limits, but within the Town's existing service area, to tie into the sewer system is questionable. However, the Town may offer septic systems within the Town's service area, but situated outside the Town limits, the opportunity to tie to the Town's new WRF after the Town completes its wastewater collection system upgrade project. The collection system upgrade is a future (and currently unfunded) project separate from and not covered by this CAAG 208 Plan Amendment.

##### ***3.1.3 Plans for Disposal of/Use of Effluent***

The proposed WRF will treat the wastewater and generate effluent that will meet Class A+ quality standards as outlined in Arizona Administrative Code (AAC) Title 18, Chapter 9 (AAC R18-9). As water conservation and riparian habitat enhancement measures, the effluent may be:

- Option 1: reused for public golf course irrigation;
- Option 2: reused in mining operations;
- Option 3: infiltrated to the alluvial aquifer using an infiltration basin; or
- Option 4: discharged through a permitted discharge point when other options are unavailable.

Options 1, 2 and 3 will reduce the volume of fresh water pumped to the mining operations, and Option 4 will contribute additional surface and subflow water to the alluvial system.

The effluent will be conveyed to the reuse system for golf course irrigation at the Cobre Valley Country Club (located directly across the Miami Wash, a waters of the U.S., waters of the U.S.), used for mining operations, or conveyed to an infiltration basin to the extent feasible. The reuse of the effluent will be regulated by ADEQ's Reuse Permit. One existing basin, referred to as North #1 Infiltration Basin, is being considered for the effluent infiltration, as shown in Appendix B – Figure 1. Effluent will be infiltrated to the alluvial aquifer in the North #1 Infiltration Basin with emergency releases from the basin to Miami Wash, a waters of the U.S. The basin is approximately 3.5 acres in size and has a total volume of approximately 8 MG. This volume provides enough capacity for one week of peak flow and a back-to-back 100 year, 24 hour stormflow.

The effluent will also be piped to a permitted point of discharge in the Miami Wash, a waters of the U.S. through an Arizona Pollutant Discharge Elimination System (AZPDES) permit. The direct discharge would be required only if reuse and infiltration options are unavailable. Locations of the effluent uses are shown in Appendix B – Figures 6 and 7. A flow chart showing effluent use alternatives including volumes is included as Appendix C-7.

### **3.1.4 Pre-treatment Program**

Title 40 of the Code of Federal Regulations (40 CFR) Part 403 requires a Publicly Owned Treatment Work (POTW) with a total design flow greater than 5.0 million gallons per day (MGD) that receive discharges from industrial users to establish a POTW pretreatment program. The proposed WRF will treat municipal waste and will not include flows from any industrial facility. Additionally, the design capacity of the proposed WRF is less than 5.0 MGD; therefore no pretreatment program is required for the proposed WRF.

## **3.2 Legal Authority to Carry Out DMA**

### **3.2.1 Self-Certification letter**

The Town has the authorities required by Section 208(c)(2) of the CWA to implement the plan for the proposed service area. A copy of the self-certification letter presenting this authority is provided in Appendix C-2.

### **3.2.2 Legal Description of DMA Boundary**

A copy of the legal description depicting the Town's DMA service area is provided in Appendix C-3 and shown on Appendix B-Figure 3. The resolution the Town passed to become a DMA is also included in Appendix C-3.

### **3.2.3 Description of Local Ordinances that will Administer DMA**

The Town's DMA will be administered by the Town Council. The Town Council consists of seven elected members of the community. The elections for selecting council members are held every two years.

### **3.3 Financial Solvency**

#### **3.3.1 Describe the Financial Ability to Implement Plan**

The closure and post-closure of the existing wastewater treatment system, and the design and construction of the proposed WRF will be performed by FMMI. Appendix C-4 includes the construction budget for the proposed WRF and a letter from FMMI demonstrating FMMI's ability to financially manage the construction of the proposed WRF. Upon construction, the Town will own and operate the proposed WRF. A letter from FMMI that states the financial and other necessary arrangements with the Town to accomplish the goals of land conveyance and construction of the proposed WRF is also included in Appendix C-4. The demonstration of financial capability presented in this section is based on the financial capability of the Town and FMMI.

A letter signed by the chief financial officer of the Town included in Appendix C-4 provides documentation of the Town's financial capability to operate and maintain the proposed WRF in compliance with AAC R18-9. Additionally, the Town's detailed budget for existing sewer operations and a forecast/projection of future operations including Town's Capital Improvement Plan is included in Appendix C-4

#### **3.3.2 Projected Planning for Funding**

The Town will fund the operating and closure and post-closure costs for the proposed WRF by a combination of any of the following:

- Current assets and operating budget;
- User fees;
- Impact or hookup fees for developers;
- Levy taxes (Town sales and/or property taxes);
- Special assessments;
- Grant and loan packages;
- Grants; and/or
- Private financing.

### **3.4 Administrative/Technical Competency to Carry out Plan**

#### **3.4.1 Personnel Resources**

The Town is the applicant, owner and operator of the proposed WRF. FMMI is the community partner providing technical support to the Town. EMC<sup>2</sup> is the authorized agent, preparing this CAAG 208 Plan Amendment and other permits necessary for the Town's proposed WRF.

#### **3.4.2 Technical Ability**

During the final stage of construction, the Town will be involved with FMMI in the proposed WRF commissioning. Upon the completion of commissioning/construction of the proposed WRF, FMMI will transfer ownership and operation of the proposed WRF including necessary easements/rights-of-way to the Town. The Town will be the owner and operator of the proposed WRF.

The proposed WRF will be operated under the overall direction of the Town Mayor and the Town Administrator. The day-to-day operation and maintenance of the proposed WRF will be headed by the Public Works Director, Mr. Wes Sukosky. Based on the treatment technology and the population to be served (5,000 or fewer), the proposed WRF would be considered a Grade 2 facility as outlined in AAC R18-5. The Town's operation team will include at least a Grade 2-certified operator and will operate and maintain the proposed WRF for the Town.

The Town and EMC<sup>2</sup> have been supported by FMMI management and staff in preparing this CAAG 208 Plan Amendment.

The technical expertise at FMMI spans a broad range of professions related to the mining and mineral extraction industry. FMMI employs a staff of qualified professionals in various technical groups enabling them to produce high grade copper. The technical groups at FMMI include the following:

- Technical Services;
- Environmental Affairs;
- Copper Products Division; and
- Copper Production Division.

FMMI professionals providing technical assistance are educated in the disciplines of environmental management, environmental engineering, land acquisition, permit acquisition, and environmental protection. Mr. Jay Spehar is the Environmental and Land Manager in this group, providing leadership and direction for the project. Mr. Jon Quam, a professional Project Manager from FMMI, is providing technical supervision for the engineering design, procurement, management and construction of the proposed WRF to FMMI, the Town and EMC<sup>2</sup>.

EMC<sup>2</sup> is a civil, environmental and construction management firm with over 11 years of extensive experience consulting, managing and coordinating various projects for mining, industrial and public clients. EMC<sup>2</sup> has offices in Phoenix, Arizona; Denver, Colorado; and Bozeman, Montana and currently employs 24 personnel that include the following:

- 9 Professional Engineers (PE) – Civil; and
- 5 Engineers-in-Training (EIT) – Civil.

### ***3.4.3 Availability of Equipment/Other Pertinent Resources to Implement***

FMMI in coordination with the Town will arrange for the construction of the proposed WRF. The Town will utilize existing staff to operate the proposed WRF. The staff will be licensed/certified as required for the operation of the proposed WRF.

## **3.5 Political Accountability**

### ***3.5.1 Brief History***

The Town was incorporated in 1918. However the Town began providing sewer services as early as 1920. Since that time, the Town has continued to expand and modernize its sewer system. The Town's existing wastewater treatment system was implemented in 1980 in coordination with Cyprus Miami Mining Corporation, a predecessor of FMMI.

The Town passed a resolution in 1978 to establish the Town's current DMA boundary which includes areas within the Town limit. This CAAG 208 Plan Amendment is not proposing any expansion to this boundary..

### ***3.5.2 Description of Administration of DMA***

The Town's DMA will be administered by the Town Council. The Town Council consists of seven elected members of the community. The elections for selecting council members are held every two years.

## **3.6 Political Acceptability**

### ***3.6.1 Description of Nearby Municipalities and Sewer Service Providers***

#### ***3.6.1.1 Municipalities***

The municipalities within 5-mile radius of the proposed WRF are: the Town, Globe, and an unincorporated portion of Gila County (Claypool) as shown on Appendix B - Figure 5.

#### ***3.6.1.2 Sewer Service Providers***

The Town and Globe are the only entities that provide sewer services in the vicinity of the proposed WRF. The Town serves areas outside the Town limit (DMA boundary) which are

within the service areas of Pinal Sanitary District and Globe; however both these entities provide no sewer services to these service areas. The Cobre Valley Sanitary District also provides no sewer services to its service area located in the vicinity of the proposed WRF.

**3.6.2 Provide Documentation that all Nearby Entities/Sewer Operators have Agreed/Supported DMA Creation/Expansion**

Letters of support from Globe, Gila County and the Pinal and Cobre Valley Sanitary Districts are provided in Appendix C-5.

**4.0 WASTEWATER CHARACTERIZATION**

**4.1 Population**

**4.1.1 POPTAC figures**

According to the United States Census 2000 data, there are 1,936 residents and 754 occupied dwelling units within the Town's current service area. Based on these data, the persons per dwelling unit is approximately 2.57. The current commercial properties count of 211 units was obtained from the Town's Engineering Department.

**4.1.2 Initial Population Serviced**

Once operational, the proposed WRF will serve the current population of 1,936.

**4.1.3 Population at Build-Out**

Assuming a life expectancy of 30 years for the proposed WRF, the future population projection for year 2040 is 2,132. This estimate is based on the 2006-2055 Arizona Commerce Gila Sub-County Population Projections. Based on the current persons per dwelling unit estimate of 2.57, the number of dwelling units is projected to be 830 in 2040. The Town is projecting 240 commercial units for year 2040.

**4.1.4 Population Projections**

See Sections 4.1.1 through 4.1.3.

**4.2 Wastewater Flows**

**4.2.1 Brief Explanation of Calculations**

EMC<sup>2</sup> obtained the Town's existing wastewater system's daily flow records from January 1998 through December 2008 from Town representatives to review capacities and peak flows. EMC<sup>2</sup>'s detailed analysis of this data to determine the Town's average and peak wastewater flows are presented in Tables 1 and 2. The review of the two highest flow years (i.e. 2005 and 2008) show that the highest wet and dry weather peak flows are 638,110 gpd and 300,330 gpd,

respectively. In order to handle these peak flows, the design capacity of the proposed WRF is selected to be 640,000 gpd. This capacity provides approximately 94% more capacity over the Town’s current permitted capacity of 330,000 gpd.

<b>Table 1</b>					
<b>Wastewater Flow Summary</b>					
<b>Year</b>	<b>Total Annual Wastewater Flow (gallons/year)</b>	<b>Average Wastewater Flow (gallons/day)</b>	<b>Peak Wastewater Flow (gallons/day)</b>	<b>Peak Wastewater Flow Date</b>	<b>Wastewater Missing Data Dates (1)</b>
1998	94,776,720	259,662	369,660	2/14/98	None
1999	95,227,840	260,898	358,520	4/1/99	None
2000	101,928,720	278,494	495,630	10/22/00	None
2001	101,354,360	278,446	485,900	7/29/01	None
2002	90,429,310	247,752	424,680	12/24/02	January
2003	88,383,260	242,146	406,640	2/27/03	None
2004	87,475,180	239,003	340,030	3/5/04	None
2005	94,035,270	257,631	638,110	3/10/05	None
2006	85,857,670	235,873	341,850	3/11/06	None
2007	96,506,740	264,402	416,670	12/7/07	None
2008	102,333,000	279,598	607,520	1/29/08	None
<b>1998-2008 Summary</b>		<b>258,537</b>	<b>638,110</b>	<b>3/10/05</b>	<b>-</b>
<b>Note:</b>					
1. Wastewater flows calculated/estimated for Wastewater Missing Data Dates based on meter readings before/after missing months.					

<b>Table 2</b>			
<b>Wastewater Flow Summary - Highest Average/Peak Flow Records (1)</b>			
<b>Average Flow (gpd)</b>	<b>Continuous Occurrence (days)</b>	<b>Corresponding Dates</b>	<b>Flows (gpd) (2)</b>
<b>2005</b>			
> 300,000	36	2/19/05 - 3/26/05	ADF = 257,631 PDWF = 300,330 PWWF = 638,110 MDWF = 186,570
> 400,000	26	2/26/05 - 3/23/05	
> 500,000	10	3/7/05 - 3/16/05	
> 600,000	5	3/8/05 - 3/12/05	
> 700,000	0	-	
<b>2008</b>			
> 300,000	84	1/7/08 - 3/30/08	ADF = 279,598 PDWF = 349,580 PWWF = 607,520 MDWF = 123,550
> 400,000	54	1/28/08 - 3/21/08	
> 500,000	10	2/18/08 - 2/27/08	
> 600,000	1	1/29/08	
> 700,000	0	-	
gpd = gallons/day; ADF = Average daily flow; PDWF = Peak dry weather flow; PWWF = Peak wet weather flow; MDWF = Minimum dry weather flow.			
<b>Notes:</b>			
1. Information for the two years with the highest average and peak flow based on the past 11 year records (identified in Table 1) is presented herein.			
2. PDWF assumed to be May through December. PWWF assumed to be January through April. PDWF and PWWF month breakouts were assumed based on EMC <sup>2</sup> review of available precipitation data for the TJ Pit located at the FMMI mine site.			

#### **4.2.2 Flow Capacity at Build-Out**

According to the United States Census 2000 data, there are 1,936 residents and 754 occupied dwelling units within the Town's current service area. The proposed WRF is anticipated to be operational in year 2010. Assuming a life expectancy of 30 years for the proposed WRF, the future population projection for year 2040 is 2,132. This estimate is based on the 2006-2055 Arizona Commerce Gila Sub-County Population Projections.

Using the highest annual average daily flow (279,598 gpd) and current population estimate (1,936) for 2008, the 2008 unit flow is 145 gallons per capita per day (gpcd). Using the 2040 projected population of 2,132 and the unit flow of 145 gpcd, the average daily flow at the 2040 population projection is 309,140 gpd. Applying a typically used peaking factor of 2.0, the peak flow in 2040 is projected to be 618,280 gpd. The design capacity (640,000 gpd) proposed for the Town's proposed WRF is significantly higher than this estimate. However, this projected 2040 capacity does not consider greater increase in future flow due to infiltration/inflow from further deterioration of the Town's existing collection system. The Town is currently working towards planning, designing and construction/repair of its existing collection system. With the construction/repair of its collection system, the inflow/infiltration in the collection system is expected to significantly reduce peak flows to average flow conditions at the proposed WRF.

#### **4.2.3 Contingency for Peak Flows**

Typically, wastewater treatment plants (WWTPs) are designed to meet the average daily flow. Based on the evaluation of the Town's existing flow records and to provide contingency to the proposed wastewater treatment system, the proposed WRF is designed to handle current peak flows on a continuous basis. Additionally, the proposed design capacity of 640,000 gpd is approximately 94% more capacity over the Town's currently permitted capacity of 330,000 gpd for the existing wastewater treatment system.

AAC R18-9 defines treatment facility design flow as the average daily flow over a calendar year calculated as the sum of all influent flows to the facility. As noted on Table 1, the average wastewater flow for the past 10 years is approximately 258,537 gpd. AAC R18-9 also requires reporting the facility's maximum day flow, defined as the greatest daily total flow that occurs over a 24-hour period within an annual cycle of flow variations. The greatest daily total flow over a 24-hour period on record is 638,110 gpd (2005). The design capacity of 640,000 gpd for the proposed WRF exceeds both these criteria providing sufficient contingency for peak flows.

In addition to the contingency built into the proposed WRF, a lined influent emergency holding pond is proposed to handle the potential for increased flow resulting from infiltration/inflow from further deterioration of the Town's existing collection system. The influent emergency holding pond is a temporary facility and will be discontinued from use once the Town constructs/repairs its collection system.

The influent emergency holding pond is located south of the proposed WRF site as shown in Appendix B - Figure 1 and is approximately 1 acre in size with an operating capacity of 1 MG.

This capacity provides approximately 1.5 days of peak flow or 4 days of average flow capacity. The wastewater flows from the existing Pump Station will be conveyed to the influent emergency holding pond via a pipe branch off the proposed WRF forcemain. The collected flows will be treated at the proposed WRF. The influent emergency holding pond is designed as a BADCT facility meeting the requirements of AAC R18-9.

#### **4.2.4 Flow Phasing**

As noted in Section 4.1.4, the proposed WRF will be built in one phase and will provide the proposed design capacity of 640,000 gpd after system start-up.

### **5.0 WASTEWATER RECLAMATION FACILITY**

#### **5.1 Reclamation Facility Description**

##### **5.1.1 Type of Wastewater Reclamation Facility**

The proposed WRF is an extended aeration (i.e., modified activated sludge process) facility with a design capacity of 640,000 gpd. A conceptual layout of this extended aeration system's components planned for the proposed WRF is presented in Appendix B - Figure 2. The components will include: headworks, anoxic and aeration chambers, clarifier, sludge holding tank, filtration and disinfection units. Sludge dewatering will be achieved using a skid mounted belt filter press with slurry feed pump, wash water pump, and polymer conditioning system.

##### **5.1.2 Location of Proposed WRF – Physical Address and/or Legal Description**

The proposed WRF site will be located in Section 16 of Township 1 North, Range 15 East of the Gila and Salt River Meridian, Gila County, Arizona as shown in Appendix B - Figure 1.

A legal description of the site is provided in Appendix C-1.

##### **5.1.3 Flow Rates**

EMC<sup>2</sup> obtained the Town's existing wastewater system's daily flow records from January 1998 through December 2008 from Town representatives to review capacities and peak flows. EMC<sup>2</sup>'s detailed analysis of this data to determine the Town's average and peak wastewater flows are presented in Tables 1 and 2. The review of the two highest flow years (i.e. 2005 and 2008) show that the highest wet and dry weather peak flows are 638,110 gpd and 300,330 gpd, respectively. In order to handle these peak flows, the design capacity of the proposed WRF is selected to be 640,000 gpd. This capacity provides approximately 94% more capacity over the Town's current permitted capacity of 330,000 gpd.

#### **5.1.4 Sewage accepted by Proposed WRF**

##### **A. Type**

The proposed WRF will treat municipal wastewater consisting of flows mainly from residential and commercial areas.

##### **B. Projected Percentage of Amount Per Sewage Type**

The wastewater flow composition of the proposed service area includes approximately 95% residential and 5% commercial.

### **5.2 Sewage Collection System**

#### **5.2.1 Description of Sewer Works Infrastructure**

##### **A. Sewer Lines Flowing Into Plant**

The Town's wastewater flows are collected and conveyed by a network of sewerlines that ultimately deliver to the Pump Station.

##### **B. Lift Stations**

The existing Pump Station has three pump sets in parallel, with each pump set consisting of two pumps in series. Currently, one, two or all three pump sets are operated to obtain varying flows based on the wastewater flows conveyed to the Pump Station. Based on the review of the existing pump records and calculated flow rates, a maximum flow rate of 691,200 gpd can be obtained using existing pumps. This capacity exceeds the design capacity of the proposed WRF. As a result, the proposed WRF forcemain and pumping system are sized for the maximum flow rate of 691,200 gpd.

##### **C. Forcemains**

As noted in Section 5.2.1.C, the forcemain for the proposed WRF is designed to deliver a maximum flow rate of 691,200 gpd from the existing Pump Station to the proposed WRF. A 6-inch forcemain will be required to deliver this flow. This sizing is preliminary and was determined using guidelines outlined in AAC R18-9. The proposed forcemain will be connected at the meter box located outside the existing Pump Station, as shown in Appendix B - Figure 6.

##### **D. Any Setbacks or Easements that may be Needed to Create Infrastructure**

In accordance with AAC R18-9, the setback requirements for a new treatment facility with a design flow rate of 640,000 gpd is 750 feet assuming no installation of noise, odor and aesthetics controls. Setback distances are measured from the treatment and disposal

components within the treatment plant to the nearest property line of an adjacent dwelling, workplace, or private property. The proposed WRF and the surrounding properties are FMMI-owned; thus, no private property acquisition would be required. As shown on Appendix B - Figure 1, the nearest private property is located more than 1,700 feet to the east of the proposed WRF.

#### ***E. Other Items Pertinent to Infrastructure Issues***

The Town's current wastewater collection system was installed in the 1920s. In an attempt to repair and/or upgrade the existing antiquated wastewater collection system, the Town has initiated mapping of the collection system including: videography of existing sewer mains and manholes; compilation of as-built drawings; and an updated count of sewer connections. The Town previously received a \$35,000 Technical Assistance Grant from the Water Infrastructure Financing Authority (WIFA) to videograph the collection system. The Town recently completed videographing approximately 25,000 feet of sewer pipe within the Town's existing service area including under Highway 60. This videography concluded that the Town's collection system is 100 percent inadequate and imminently failing.

The Town's current finances limit their ability to repair/upgrade their deteriorated collection system. Hence, the Town in coordination with the City of Phoenix (City) is aggressively pursuing other options to fund the repair/upgrade of the collection system. These options include grant and loan packages. The Town, through the City, has approached various agencies including WIFA and the United States Department of Agriculture for loans and grants to be used for design and construction of the collection system repair/upgrade.

### **5.2.2 Treatment Process**

#### ***A. Treatment type***

Three potential technologies were considered for the proposed WRF: extended aeration, sequencing batch reactor, and membrane reactor. In order to evaluate these three technologies, various vendors representing one of these technologies and WWTP operators were contacted to document the real-time performance of these technologies. Criteria researched as part of this communication included the duration for which the technology has been established, operation ease and flexibility, footprint size required, ability to handle wastewater load fluctuations, operator training and qualifications, maintenance requirements, sludge yield and costs. The treatment technology information was taken from vendor brochures and fact sheets published by the United States Environmental Protection Agency (EPA).

Based on this evaluation, extended aeration was selected as the proposed treatment technology. Extended aeration is a modification of the activated sludge process which provides biological treatment for the removal of biodegradable organic wastes under

aerobic conditions. Mixing is performed and air is supplied to maintain contact between microbial organisms and dissolved organics and to provide oxygen to sustain the aerobic biological process. In addition, pH is controlled to optimize the biological process and the essential nutrients that must be present to facilitate biological growth and the continuation of biological degradation. Extended aeration systems require seed sludge, usually obtained from other similar wastewater treatment plants, to initiate the microbial treatment process.

Extended aeration systems are easy to operate, are a well established technology, and are efficient at handling organic loading and flow fluctuations. They have lower capital cost, are easy to install, are odor free and have lower sludge yields compared to other treatment technologies. However, extended aeration WWTPs have limited flexibility to adapt to changing effluent requirements and have longer aeration periods, which require more energy and longer treatment times compared to other treatment technologies. Since the proposed WRF will treat the wastewater to generate only the highest quality (Class A+) effluent, this will not be an issue.

#### ***B. Treatment monitoring***

The proposed WRF will meet monitoring requirements approved in the individual APP and AZPDES Permit for the proposed WRF. These requirements are based on AAC R18-9 and AAC R18-11.

#### ***C. Odor Control***

Please refer to Section 5.2.1 D.

#### ***D. Stages in Processing***

A conceptual layout of the extended aeration system components planned for the proposed WRF is presented in Appendix B - Figure 7. The components will include: headworks, anoxic and aeration chambers, clarifier, sludge holding tank, filtration and disinfection units.

#### ***E. Sludge Processing***

The sludge generated from the proposed WRF will be dewatered using a skid mounted belt filter press with slurry feed pump, wash water pump, and polymer conditioning system. The sludge volume after the treatment process and the belt filter press will be approximately 14,342 gpd and 4,240 gpd, respectively.

The dewatered sludge from the belt filter press will meet the paint filter test required for acceptance at a municipal solid waste landfill. The dewatered sludge from the proposed WRF is planned to be conveyed to the Russell Gulch landfill located approximately two miles from the proposed WRF and operated by Gila County. Currently, the operating

plan for the Russell Gulch landfill excludes the disposal of sewage sludge. However, Gila County is in the process of reviewing the operating plan to possibly include sewage sludge disposal. In the event the Russell Gulch landfill option is not viable, the sludge from the proposed WRF could be transported and disposed of at the Apache Junction landfill located approximately 50 miles from the proposed WRF.

In the event the belt filter press is offline for repairs/maintenance, the dewatered sludge may be temporarily stored on onsite drying bed(s). The dried sludge may be used as biosolids for land application for reclamation projects or transported to the Russell Gulch or Apache Junction landfill upon meeting testing requirements as identified in 40 CFR Part 503 and AAC R18-9, Article 10. A flow chart showing sludge use alternatives is included in Appendix C-6.

Onsite drying bed(s) as shown in Appendix B - Figure 2 was preliminarily sized based on the sludge volumes provided by the proposed WRF vendor and the guidelines outlined in ADEQ Engineering Bulletin No. 11.

#### ***F. Disinfection***

Chlorination will be used for the disinfection of the effluent. In the event the effluent is infiltrated through the permitted infiltration basin or discharged to the Miami Wash, a waters of the U.S., the effluent will be dechlorinated. The effluent will not be dechlorinated when it is reused for golf course irrigation or mining operations to maintain the required residual chlorine in the system.

#### ***G. Any Other Issues in the Treatment Process***

None.

### **5.2.3 Products**

#### ***A. Effluent***

The proposed WRF will treat the wastewater to generate effluent that will meet Class A+ quality standards as outlined in AAC R18-9.

#### ***B. Sludge***

The dewatered sludge from the proposed WRF is planned to be conveyed to the Russell Gulch landfill located approximately two miles from the proposed WRF and operated by Gila County. Currently, the operating plan for the Russell Gulch landfill excludes the disposal of sewage sludge. However, Gila County is in the process of reviewing the operating plan to possibly include sewage sludge disposal. In the event the Russell Gulch landfill option is not viable, the sludge from the proposed WRF could be transported and

disposed of at the Apache Junction landfill located approximately 50 miles from the proposed WRF.

In the event the belt filter press is offline for repairs/maintenance, the dewatered sludge may be temporarily stored on onsite drying bed(s). The dried sludge may be used as biosolids for land application for reclamation projects or transported to the Russell Gulch or Apache Junction landfill upon meeting testing requirements as identified in 40 CFR Part 503. A flow chart showing sludge use alternatives is included in Appendix C-6.

#### **5.2.4 Effluent - Collection, Storage and Disposal**

The effluent generation rate from the proposed WRF will be approximately equal to the incoming flow rate. It is not anticipated to store the effluent generated from the proposed WRF onsite. The effluent will be conveyed to the reuse system for golf course irrigation at the Cobre Valley Country Club (located directly across the Miami Wash, a waters of the U.S.), used for mining operations, or infiltrated to North #1 Infiltration Basin to the extent feasible. The North #1 Infiltration Basin includes installation of an engineered hydraulic outlet structure that will be the permitted point of discharge in the Miami Wash, a waters of the United States, under an AZPDES permit. This location is shown in Appendix B - Figures 6 and 8. Effluent at the point exiting the chlorine disinfection unit is proposed as the effluent monitoring point for the proposed WRF and is shown on Appendix B - Figure 6. The effluent quality at the proposed effluent monitoring point will meet the Class A+ effluent quality requirements outlined in AAC R18-9. The reuse and infiltration of the effluent will be regulated by ADEQ's Reuse Permit and APP, respectively, for the proposed WRF.

The direct discharge would be required only if reuse and infiltration options are unavailable. Conceptual locations of the proposed uses are shown in Appendix B - Figure 8. A flow chart showing effluent use alternatives including volumes is included in Appendix C-7.

#### **5.2.5 Sludge - Collection, Storage and Disposal**

The dewatered sludge from the proposed WRF is planned to be conveyed to the Russell Gulch landfill located approximately two miles from the proposed WRF and operated by Gila County. Currently, the operating plan for the Russell Gulch landfill excludes the disposal of sewage sludge. However, Gila County is in the process of reviewing the operating plan to possibly include sewage sludge disposal. In the event the Russell Gulch landfill option is not viable, the sludge from the proposed WRF could be transported and disposed of at the Apache Junction landfill located approximately 50 miles from the proposed WRF.

In the event the belt filter press is offline for repairs/maintenance, the dewatered sludge may be temporarily stored on onsite drying bed(s). The dried sludge may be used as biosolids for land application for reclamation projects or transported to the Russell Gulch or Apache Junction landfill upon meeting testing requirements as identified in 40 CFR Part 503. A flow chart showing sludge use alternatives is included in Appendix C-6.

### **5.3 Effluent Management**

#### **5.3.1 Discharge**

##### ***A. Effluent Quality***

The proposed WRF will treat the wastewater to generate effluent that will meet Class A+ quality standards as outlined in AAC R18-9.

##### ***B. Storage (e.g. Ponds, Vaults, etc.)***

See Section 5.2.4.

##### ***C. Discharge Location(s)***

See Section 5.2.4.

##### ***D. Discharge Permit Compliance***

See Section 5.2.4.

##### ***E. Volume of Discharge***

The amount of effluent generated from the proposed WRF will be approximately equal to the influent flow rate with the peak not exceeding 640,000 gpd.

##### ***F. Schedule of Discharge (Constant Discharge vs. Seasonal Discharge)***

To the extent feasible, the effluent will be either reused or infiltrated. Direct discharge to the Miami Wash, a waters of the U.S. will be used only if reuse and infiltration options are unavailable.

#### **5.3.2 Reclamation/Reuse**

##### ***A. Reusability***

See Section 5.2.4.

##### ***B. Reuse Applications (Agriculture, Landscaping, etc.)***

See Section 5.2.4.

##### ***C. Water Reuse Permit Compliance***

See Section 5.2.4.

#### ***D. Projected Reuse Flows***

The proposed WRF effluent will first be utilized in reuse to augment or replace irrigation for the Cobre Valley Golf Course and to augment or replace the water supply for FMMI mining operations.

The Cobre Valley Golf Course is currently supplied fresh water from a ground source. Reuse of effluent will be used to augment or replace the irrigation requirements. The irrigation requirements vary throughout the year based on the season, ranging from approximately 30 gpm in the winter months to 210 gpm during peak summer months. Irrigation can accommodate the average proposed WRF flow during summer months, and may be increased if the facility overseeds with year-round irrigation. As with reuse in mining activities, reuse for irrigation will allow for less pumping from natural systems.

FMMI requires water supplies to support various mining activities. For example, the smelter requires between 670 and 1,200 gallons per minute (gpm), averaging approximately 1,000 gpm (2008 data). The smelter alone can assume the full 445 gpm (640,000 gpd) complement of proposed WRF effluent, which will allow for less stress on existing water supply wells that currently provide this water.

#### ***E. Contingency for Surplus Effluent, Lack of Effluent for Viable Reuse***

The proposed WRF effluent that is not reused as described in Section 5.2.4 will be infiltrated to the alluvial aquifer in the tributary drainages to Miami Wash, a waters of the U.S. Infiltration will be in an infiltration basin located in the tributaries north of the proposed WRF site.

Direct discharge to Miami Wash, a waters of the U.S. will be used only if infiltration and reuse options are unavailable.

## **6.0 CONSTRUCTION**

### **6.1 Construction Summary**

As noted, FMMI in coordination with the Town will construct the proposed WRF. The contractor responsible for construction activities will be selected through a bid process upon the completion of the design for the proposed WRF. It is anticipated that the construction will be completed in the first quarter of 2010. The proposed WRF will be built in one phase and will provide a capacity of 640,000 gpd after system start-up. After construction is complete, the Town will operate and maintain the proposed WRF and will be responsible for permit compliance.

## **6.2 Phasing**

### **6.2.1 Time Frame for Construction**

The proposed WRF will be built in one phase and the construction is anticipated to be completed in the first quarter of 2010.

### **6.2.2 Phasing Benchmarks**

See Section 6.2.1.

### **6.2.3 Phase Time Table**

See Section 6.2.1.

## **7.0 IMPACT**

### **7.1 Environmental Impact**

#### **7.1.1 Known Water Quality Issues**

Pinal Creek Group (PCG), a consortium of mining companies, including FMMI, operates alluvial groundwater remediation facilities that are situated at various locations along Pinal Creek and its tributaries. PCG's facilities are designed to dewater the alluvial aquifer system for the purpose of capturing and treating the water for historic contaminants, including certain metals and acidity.

PCG's remediation facilities include two remedial well fields, an impermeable underground barrier wall and a water treatment plant as shown in a flow chart included in Appendix C-8. These facilities are situated both up and downstream from the proposed WRF site and are operated under the oversight of ADEQ. The existence of PCG's remedial facilities makes any policy preferences for recharge over discharge in the Pinal Creek drainage technically unsuitable. The entire alluvial system is dewatered downstream from the proposed WRF. After treatment of contaminants, the water is then discharged, pursuant to the terms and conditions of an AZPDES permit, into Pinal Creek.

PCG operates the Kiser Basin well field at Miami Wash, a waters of the U.S. about 2,500 feet upstream from the proposed WRF site. The purpose of the Kiser Basin well field is to create a hydrologic barrier by dewatering the alluvial aquifer of contaminated groundwater from Bloody Tanks Wash inflows, while allowing the relatively smaller and cleaner inflows from Russell Gulch to flank the hydrologic barrier on its easterly side, where it then becomes groundwater in the down gradient alluvial system. The Kiser Basin well field produces from 15 capture wells yielding approximately between 500 gallons per minute (gpm) and 4,200 gpm, with 2,250 gpm being the average yield. Yields are dependent on precipitation cycles. The well field is designed

to dewater the alluvial aquifer at saturated conditions. Remedial water pumped from the Kiser Basin well field is neutralized and utilized or managed in mining district operations.

About eight miles downstream from the proposed WRF site, PCG has constructed an underground barrier wall across the Pinal Valley that is situated perpendicular to the Pinal Creek drainage. This underground barrier wall is essentially an impermeable underground dam that stops alluvial groundwater from entering the flow system of Lower Pinal Creek. The alluvial aquifer is dewatered by PCG's Lower Pinal Creek Well Field, which is situated immediately up gradient of the underground barrier wall. Sixteen capture wells yield approximately between 2,000 gpm and 6,500 gpm, with 4,100 gpm being the average yield. Yields are dependent on precipitation cycles. The well field is designed to dewater the alluvial aquifer at saturated conditions. The dewatered groundwater is then pumped to the Lower Pinal Creek Water Treatment Plant for treatment of various metals and acidity.

At the Lower Pinal Creek Water Treatment Plant, the contaminated water is subjected to a two-stage lime treatment process that results in the water meeting water quality discharge standards. After completing the treatment process, the water is piped to a location immediately down gradient of the underground barrier wall and is released to Pinal Creek at Outfall 001 in compliance with an AZPDES permit.

Because the aquifer into which the proposed WRF would be discharged or infiltrated is truncated and subject to complete dewatering and discharge at a down gradient location, no preference should be made for infiltration over discharge. Such a preference would be technically unsuitable because of the location and functionality of the groundwater remediation system facilities in place, and such a preference would produce virtually no cost benefit. Moreover, federal regulations provide for permitted discharges and discharge is a permissible activity in the State of Arizona.

As part of the APP application for the proposed WRF, a white paper outlining the regional geology and hydrogeology in the vicinity of the proposed WRF was developed by Golder Associates, Inc. This document is provided as Appendix C-9. No water quality problems are anticipated for the proposed WRF. Effluent generated by the proposed WRF will produce Class A+ effluent meeting the requirements outlined in AAC R18-9.

### **7.1.2 Point Source Pollution**

The products (i.e., effluent and sludge) generated from the proposed WRF will not result in point source pollution as the effluent and sludge management outlined for the proposed WRF will meet the requirements set forth by the regulating authorities like ADEQ.

### **7.1.3 Non-Point Source Pollution**

There are no non-point issues related to the proposed WRF. The proposed WRF site will be protected from stormwater runoff with proper site grading. Stormwater originating onsite will be routed to stormwater impoundments located south of the proposed WRF.

#### **7.1.4 Soil Erosion**

The construction and implementation of the proposed WRF will not increase soil erosion. Sediment erosion control methods will be implemented during the construction of the proposed WRF. These methods are part of the Stormwater Pollution Prevention Plan (SWPPP) developed for the proposed WRF.

#### **7.1.5 Air Quality**

Construction of the proposed WRF and effluent forcemain will not be a pollution intensive activity. Anticipated pollutants may include dust from construction activities, construction related solid waste, and disposal of inert materials. Mitigation measures will include erosion control structures and construction site monitoring for dust control. New construction will be conducted under the AZPDES Permit issued by ADEQ.

### **7.2 Community Impacts**

#### **7.2.1 Service/Infrastructure**

The proposed WRF will service the areas that are currently served by the existing wastewater treatment system. Upon the construction of the proposed WRF, the existing wastewater treatment system will be decommissioned in accordance with AAC R18-9.

No modification to the existing collection system is anticipated for the implementation of the proposed WRF. In order to deliver the design flow from the existing Pump House to the proposed WRF, a 6-inch forcemain will be required. The sizing was determined using guidelines outlined in AAC R18-9. The proposed forcemain will be connected at the meter box located outside the existing Pump Station as shown in Appendix B - Figure 6.

#### **7.2.2 Residential/Commercial**

The implementation of the proposed WRF is not anticipated to have any impact on adjacent residential or commercial areas. The effluent reuse, infiltration or discharge is not anticipated to increase odor or vector concerns. Setback requirements set forth by ADEQ for these uses from the nearest private property are maintained for the proposed WRF. The construction of the proposed WRF has received strong community support as demonstrated by support letters from neighboring communities/organizations in Appendix C-5.

#### **7.2.3 Economic**

Since the proposed WRF will be providing approximately 94% more capacity than the Town's currently permitted capacity for the existing wastewater treatment system, the implementation of the proposed WRF will be beneficial to the Town for handling excess flow currently occurring due to the inflow/infiltration into the existing collection system and possible growth of the service area upon repairing the current collection system.

The generation of Class A+ effluent from the proposed WRF provides an opportunity to use the effluent for beneficial uses like reuse and infiltration.

### **7.3 Water-Based Recreation**

#### **7.3.1 Recreational Uses**

The products of the proposed WRF are not anticipated to create any new water-based recreational uses. However, the reuse of the effluent for the irrigation of the Cobre Valley Golf Course provides recreational use for the community, replaces the dependency on the current groundwater source for irrigation and may support expansion of the golf course. Additionally, riparian habitat for wildlife may be created/supported if effluent discharges are adequate.

#### **7.3.2 Access or Improvement to Water-Based Recreation**

The Cobre Valley Golf Course and Country Club are accessible to the public. As noted in Section 7.3.1, the proposed WRF is not anticipating creation of any new water-based recreational uses hence access or improvement to water-based recreation is not applicable for the proposed WRF.

#### **7.3.3 Change in Land Use Due to Water-Based Recreation**

In the event of the expansion of the Cobre Valley Golf Course, the existing pasture/grazing area in the vicinity of the golf course will be converted to a recreation area. Since the implementation of the proposed WRF is not anticipated to create any new water-based recreation, a change in the land use due to water-based recreation is not anticipated with implementation of the proposed WRF.

## **8.0 PERMITS**

In addition to this CAAG 208 Plan Amendment, the permits summarized below will be obtained by EMC<sup>2</sup> on behalf of the Town and FMMI for the design, construction and operation of the proposed WRF.

### **8.1 Air Quality Permit**

The diesel driven back-up generator to be installed at the proposed WRF site will require an Air Quality permit from ADEQ. The permit is governed by AAC R18-2, Article 3. On behalf of the Town, FMMI submitted the Air Quality Control General Permit for the stand-by generator proposed for this WRF to ADEQ for review and approval on September 2, 2009.

### **8.2 Aquifer Protection Permit**

Permitting required for the construction of a proposed WRF includes an individual APP. The requirements of the individual APP are outlined in AAC R18-9. The goals of the APP are to

demonstrate that the proposed WRF is designed, constructed and operated to achieve the greatest degree of discharge pollutant reduction; and to prevent violations of Aquifer Water Quality Standards and Reuse Permit standards. On behalf of the Town, FMMI submitted the individual APP for the proposed WRF to ADEQ for review and approval on September 18, 2009.

### **8.3 AZPDES Discharge Permit**

An AZPDES Permit will be obtained from ADEQ for potential discharges of treated effluent to adjacent surface waters when the reuse and infiltration options are unavailable. The AZPDES Permit is issued by ADEQ on behalf of EPA for discharges to waters of the United States.

### **8.4 AZPDES Stormwater Pollution Prevention Plan**

FMMI submitted the Notice of Intent for the AZPDES Construction General Permit (CGP) to ADEQ on August 6, 2009 for the proposed WRF construction activities. The contractor for the facilities will be responsible to abide by the CGP and applicable SWPPP to manage the discharge of pollutants in stormwater runoff from construction activities. The contractor for the facilities will be responsible to abide by the AZPDES Permit regulations relevant to construction sites to prevent the contamination of surface water and groundwater. All hazardous materials and potential pollutants will be stored onsite in appropriate storage areas constructed to contain any spills or runoff of hazardous materials. Onsite retention basins, silt traps and other sediment barriers are to be provided at the site as needed to filter sediment from stormwater runoff.

### **8.5 Local Floodplain and Drainage Regulations**

The proposed WRF is located outside of the flood hazard boundary and thus a Floodplain Permit will not be required for the proposed WRF.

### **8.6 Reuse Permit**

The proposed WRF will treat the wastewater to generate effluent that will meet Class A+ quality standards as outlined in AAC R18-11. This effluent is proposed to be reused for mining operations, golf course irrigation and/or infiltrated. The Reuse Permit issued by ADEQ will allow the reuse of the proposed Class A+ quality effluent.

## **9.0 FINANCE INFORMATION**

The closure and post-closure of the existing wastewater treatment system and the design and construction of the proposed WRF will be performed by FMMI. Upon construction completion, the Town will own and operate the proposed WRF.

The Town's detailed budget for existing sewer operations, including forecast/projection of future operations and a letter signed by the chief financial officer of the Town, included in Appendix C-4 provides documentation of the Town's financial capability to operate and maintain the proposed WRF. Appendix C-4 also includes the construction budget for the proposed WRF and

a letter from FMMI demonstrating FMMI's ability to financially manage the construction of the proposed WRF.

## **10.0 REFERENCES**

Arizona Administrative Code. September 2005. Title 18, Chapters 8 through 14.

Arizona Department of Commerce. 2006-2055 Gila Sub-County Projections.

Arizona Department of Environmental Quality. July 2001. Town of Miami Wastewater Treatment Plant Aquifer Protection Permit, Permit No. P-100814.

Arizona Department of Environmental Quality. 1978. Minimum Requirement for Design, Submission of Plans and Specifications of Sewage Works, Engineering Bulletin No.11.

Arizona Department of Water Resources. Underground Storage Facility Permit.

Central Arizona Association of Governments Residential Reports. July 2008.

Code of Federal Regulations. July 2003. Title 40, Parts 503 and 430.8.

Golder Associates, Inc. May 2009. Geology and Hydrogeology of the Proposed Site for Wastewater Reclamation Facility.

United States Census 2000.

United States Environmental Protection Agency. September 2000. Wastewater Technology Fact Sheet Package Plants.

United States Environmental Protection Agency. September 1999. Wastewater Technology Fact Sheet Sequencing Batch Reactor.

**APPENDIX A**  
**208 CHECKLIST**

**DRAFT CAAG 208 AREAWIDE WATER QUALITY MANAGEMENT PLAN  
MIAMI WASTEWATER RECLAMATION FACILITY – TOWN OF MIAMI, ARIZONA**

**CAAG 208 PLAN AMENDMENT CHECKLIST**

The Central Arizona Association of Governments (CAAG) 208 Plan Amendment checklist (Section 208 of the Clean Water Act (40 CFR Part 130.6)) on the following pages provides a summary of the amendment application requirement and how those issues are addressed within this document.

ITEM	REQUIREMENT	PROVIDE BRIEF SUMMARY OF HOW REQUIREMENTS ARE ADDRESSED	ADDRESSED ON PAGE:
1	<p><b><u>AUTHORITY</u></b></p> <p>Proposed Designated Management Agency (DMA) shall self certify that it has authorities required by Section 208(c) (2) of the Clean Water Act (CWA) 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>Town of Miami (Town) self-certifies that it has the authorities required by Section 208(c)(2) of the CWA to implement the plan for the proposed planning and services area.</p>	<p>Page 6                      (Section 3.2.1. and Appendix C-2 )</p>
2	<p><b><u>20-YEAR NEEDS</u></b></p> <p><i>{Clearly describe the existing wastewater treatment (WWT) facilities}</i></p> <p>Describe existing WWT facilities.</p>	<p>Currently, the Town does not have a formal comprehensive sewer master plan. However, the Town is working towards three goals aligned with master planning objectives: planning for the repair and/or replacement of its existing collection system; closing of the antiquated existing wastewater treatment system; and construction of a new wastewater reclamation facility (WRF). The Town is currently obtaining grants to map the existing collection system and will ultimately develop a master plan that will identify the Town’s master plan goals in detail.</p> <p>The Town will continue to use the existing network of gravity sewers to collect wastewater and ultimately discharge it to the existing Pump Station shown in Appendix B - Figure 1. The existing wastewater treatment system is also shown in this figure.</p>	<p>Page 5                      (Sections 3.1.1 and 3.1.2)                      (Appendix B - Figure 1)</p>
3	<p>Show WWT certified and services areas for private utilities and sanitary district boundaries if appropriate.</p>	<p>Refer to Appendix B - Figure 3 for the service area map of the Town and adjacent municipality and sanitary districts in the vicinity of the proposed WRF.</p>	<p>Page 3                      (Section 2.2.1.D)</p>

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

<p>4</p>	<p>{Clearly describe alternatives and the recommended WWT plan:}                   Provide POPTAC population estimates (or CAAG-approved estimates only where POPTAC not available) over 20-year period.</p>	<p>According to the United States Census 2000 data, there are 1,936 residents and 754 occupied dwelling units within the Town's current service area. Based on these data, the persons per dwelling unit is approximately 2.57. The current commercial properties count of 211 units was obtained from the Town's Engineering Department.</p> <p>Assuming a life expectancy of 30 years for the proposed WRF, the population projection for year 2040 is 2,132. This estimate is based on the Arizona Department of Commerce 2006-2055 Gila Sub-County Population Projections. Based on the current persons per dwelling unit estimate of 2.57, the number of dwelling units for year 2040 is estimated at 830. The Town is projecting 240 future commercial units for year 2040.</p>	<p>Page 3                  (Section 2.3.1)</p>
<p>5</p>	<p>Provide wastewater flow estimates over the 20-year planning period.</p>	<p>The proposed WRF is designed based on the review of the Town's existing wastewater flow records from January 1998 through December 2008. The review of the two highest flow years (i.e. 2005 and 2008) show that the highest wet and dry weather peak flows is 638,110 gallons per day (gpd) and 300,330 gpd, respectively. In order to handle these peak flows, the design capacity of the proposed WRF is selected to be 640,000 gpd. This capacity provides approximately 94% more capacity over the Town's current permitted capacity of 330,000 gpd.</p> <p>Using the highest annual average daily flow (279,598 gpd) and population (1,936) for 2008, the unit flow is 145 gallons per capita per day (gpcd). Using the 2040 build-out projected population of 2,132 and the unit flow of 145 gpcd, the average daily flow at build-out is 309,140 gpd. Applying a typically used peaking factor of 2.0, the peak flow at build-out is 618,280 gpd. The design capacity (640,000 gpd) proposed for the Town's WRF is significantly higher than this estimate. However, this projected build-out</p>	<p>Pages 10 and 12                  (Sections 4.2.1 and 4.2.2)</p>

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

		capacity does not consider for greater increase in flow due to infiltration/inflow from deterioration of the Town's existing collection system.	
6	Illustrate the WWT planning and service areas.	The proposed WRF will serve areas that are currently being served by the existing wastewater treatment system. The 1.24 square mile service area includes approximately 0.92 square miles of area within the Town limit and approximately 0.32 square miles of areas outside the Town limit, as shown in Appendix B - Figure 3.	Appendix B – Figure 3 Page 3 (Section 2.2)
7	Describe the type and capacity of the recommended WWT Plant.	The proposed WRF is an extended aeration (i.e., modified activated sludge process) facility with a design capacity of 640,000 gpd.	Page 2 (Section 2.1.2)
8	If applicable, identify any known water quality problems and explain how the plan addresses them, consider alternative control measures, and recommend solution for implementation.	No water quality problems are anticipated for the proposed WRF. Effluent generated by the proposed WRF will produce Class A+ quality meeting the requirements outlined in the Arizona Administrative Code Title 18, Chapter 9 (AAC R18-9).	Page 21 (Section 7.1.1)
9	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?	There are no private wastewater facilities within the Town's proposed service area.  The Town and the City of Globe (Globe) are the only entities that provide sewer services in the vicinity of the proposed WRF. The Town serves areas outside the Town limit [Designated Management Area (DMA) boundary] which are within the service areas of Pinal Sanitary District and the City of Globe; however both these entities provide no sewer services to these service areas.	Page 9 (Section 3.6.1.2)
10	Describe method of effluent disposal and reuse sites (if appropriate).	The effluent will be conveyed to the reuse system for golf course irrigation at the Cobre Valley Country Club (located directly across the Miami Wash, a waters of the U.S.) or mining operations, or infiltrated to the alluvial aquifer using an infiltration basin to the extent feasible. The reuse and infiltration of the effluent will be regulated by the Arizona Department of Environ-	Page 18 (Section 5.2.4, Appendix B - Figure 8 and Appendix C-7)

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

		<p>mental Quality's (ADEQ) Reuse Permit and the Aquifer Protection Permit (APP) respectively.</p> <p>The effluent will also be piped for discharge to a permitted point of discharge in the Miami Wash, a waters of the United States, through an Arizona Pollutant Discharge Elimination System (AZPDES) permit. The direct discharge to Miami Wash, a waters of the U.S., would be required only if reuse and infiltration options are unavailable.</p>	
11	<p>If Sanitary Districts are within a proposed planning or service area, describe who serves the Sanitary Districts and when.</p>	<p>There are no Sanitary Districts within the Town limit (DMA boundary). As shown in Appendix B - Figure 3, service areas of the Pinal and Cobre Valley Sanitary Districts are adjacent to the Town limit and provide no sewer services in these areas. The Town serves areas outside the Town limit that are within the service areas of the Pinal Sanitary District and Globe; however, both these entities provide no sewer services in these areas.</p>	<p>Page 9                  (Section 3.6.1.2)</p>
12	<p>Describe ownership of land proposed for plant sites and reuse areas.</p>	<p>The site for the proposed WRF including the wastewater delivery system (i.e., forcemain, Pump Station, etc.) is within Freeport-McMoRan Miami Inc.'s (FMMI) property boundary. FMMI will deed the proposed WRF site and grant necessary easements/rights-of-way to the Town.</p>	<p>Page 4                  (Section 2.3.2.C)</p>
13	<p>Address time frames in the development of the treatment works.</p>	<p>The proposed WRF will be built in one phase and the construction is anticipated to be completed in the first quarter of 2010.</p>	<p>Page 21                  (Section 6.2)</p>
14	<p>Address financial constraints in the development of the treatment works.</p>	<p>FMMI will provide financing for construction of the WRF. There are no other financial constraints in the development of the proposed WRF.</p>	<p>Pages 7 and 25                  (Sections 3.3.1 and 3.3.2 and 9.0)</p>
15	<p>Describe how discharges will comply with Environmental Protection Agency (EPA) municipal and industrial stormwater discharge regulations (Section 405, CWA).</p>	<p>All stormwater will be diverted away from the proposed WRF. Stormwater originating onsite will be routed to stormwater impoundments located south of the proposed WRF. New construction will be conducted under the AZPDES Permit issued by ADEQ.</p>	<p>Pages 22 and 23                  (Section 7.1.3 and 7.1.5)</p>

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

16	Describe how open areas & recreational opportunities will result from improved water quality and how those will be used.	The effluent will be conveyed to the reuse system for golf course irrigation at the Cobre Valley Country Club or mining operations, or infiltrated to an infiltration basin to the extent feasible. The reuse of the effluent for golf course irrigation and mining operations will replace the dependency of irrigation water from groundwater wells.	Pages 18 (Sections 5.2.4)
17	Describe potential use of lands associated with treatment works and increased access to water-based recreation, if applicable.	The land associated with the proposed WRF will be dedicated specifically to the WRF. The products of the proposed WRF are not anticipated to create any new water-based recreational uses.	Pages 24 (Sections 7.3.1)
18	<b><u>REGULATIONS</u></b> Describe types of permits needed, including National Pollutant Discharge Elimination System (NPDES), Aquifer Protection Permit (APP) and reuse.	The construction and implementation of the proposed WRF will require CAAG 208 Plan Amendment, Individual APP, Reuse, AZPDES Discharge and Air Quality permits. An AZPDES Construction General Permit will be applied for construction purposes.	Page 24 (Section 8.0)
19	Describe restrictions on NPDES permits, if needed, for discharge and sludge disposal.	The direct discharge would be required only if reuse and infiltration options are unavailable. The effluent will be piped for discharge to a permitted point of discharge in the Miami Wash, a waters of the U.S., through an AZPDES permit.	Page 18 (Section 5.2.4)
20	Provide documentation of communication with ADEQ Permitting Section 30 to 60 days prior to public hearing regarding the need for specific permits.	In the event the ADEQ Permitting Section requests permits additional to the ones listed in Section 8.0, documentation requiring these permits will be provided 30 to 60 days prior to a public hearing.	Page 24 (Section 8.0)
21	Describe pretreatment requirements and method of adherence to requirements (Section 208 (b)(2)(D), CWA).	Title 40 of the Code of Federal Regulations (CFR) Part 403.8 requires a Publicly Owned Treatment Work (POTW) with a total design flow greater than 5.0 million gallons per day (MGD) and that receive discharge from industrial users to establish a POTW pretreatment program. The proposed WRF will treat municipal waste and will not include flows from any industrial facility. Additionally, the design capacity of the	Page 6 (Section 3.1.4)

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

		proposed WRF is less than 5.0 MGD, therefore no pre-treatment program is required for the proposed WRF.	
22	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).	Sediment erosion control methods will be implemented during the construction of the proposed WRF. These methods are part of the SWPPP developed for the proposed WRF.	Page 23 (Section 7.1.4)
23	Describe alternatives and recommendation in the disposition of sludge generated. (Section 405 CWA).	<p>The dewatered sludge from the belt filter press will meet the paint filter test required for acceptance at a municipal solid waste landfill. The dewatered sludge from the proposed WRF is planned to be conveyed to the Russell Gulch landfill located approximately two miles from the proposed WRF and operated by Gila County. Currently, the operating plan for the Russell Gulch landfill excludes the disposal of sewage sludge. However, Gila County is in the process of reviewing the operating plan to possibly include sewage sludge disposal. In the event the Russell Gulch landfill option is not viable, the sludge from the proposed WRF could be transported and disposed of at the Apache Junction landfill located approximately 50 miles from the proposed WRF.</p> <p>In the event the belt filter press is offline for repairs/maintenance, the dewatered sludge may be temporarily stored on onsite drying bed(s). The dried sludge may be used as biosolids for land application for reclamation projects or transported to the Russell Gulch or Apache Junction landfill upon meeting testing requirements as identified in 40 CFR Part 503.</p>	Page 16 (Section 5.2.2.E)
24	Define any non-point issues related to the proposed facility and outline procedures to control them.	There are no non-point issues related to the proposed WRF. The proposed WRF site will be protected from stormwater runoff with proper site grading.	Page 22 (Section 7.1.3)

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

25	Describe process to handle all mining runoff, orphan sites and underground pollutants, if applicable.	Runoff from the adjacent FMMI property will be controlled and not affect the operation of the WRF.	Not applicable
26	If mining related, define where collection of pollutants has occurred, and what procedures are going to be initiated to contain contaminated areas.	This project, while initiated in part by FMMI, is not mining industry related, rather provides domestic sewer service for the Town. The facility will not be affected by nearby mining operations.	Not applicable
27	If mining related, define what specialized procedures will be initiated for orphan sites, if applicable.	This project, while initiated in part by FMMI, is not mining industry related, rather provides domestic sewer service for the Town. The facility will not be affected by nearby mining operations.	Not applicable
28	<b><u>CONSTRUCTION</u></b> Define construction priorities and time schedules for initiation and completion.	It is anticipated that the construction of the proposed WRF will be completed in the first quarter of 2010. The proposed WRF will be built in one phase and will provide a capacity of 640,000 gpd after system start-up.	Page 20 (Section 6.1)
29	Identify agencies that will construct, operate and maintain the facilities and otherwise carry out the plan.	The Town is a DMA and be responsible for the operation and maintenance of the proposed WRF. The WRF contractor information will be provided following bid review and contractor selection, if required.	Page 20 (Section 6.1)
30	Identify construction activity-related sources of pollution and set forth procedures and methods to control, to the extent feasible, such sources.	Construction of the proposed WRF and effluent forcemain will not be a pollution intensive activity. Anticipated pollutants may include dust from construction activities, construction related solid waste, and disposal of inert materials. New construction will be conducted under an AZPDES Permit issued by ADEQ. Mitigation measures will include erosion control structures and construction site monitoring for dust control. Any wastes produced during construction will be properly managed and disposed of at an appropriate facility.	Page 23 (Sections 7.1.4 and 7.1.5)

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

	<b><u>FINANCING AND OTHER MEASURES NECESSARY TO CARRY OUT THE PLAN</u></b>		
31	If the plan proposes to take over certificated private utility, describe how, when and financing will be managed.	The Town will not take over any certificated private utilities.  The Town serves areas outside the Town limit that are within the service areas of the Pinal Sanitary District and Globe; however, both these entities provide no sewer services in these areas. The Town is not proposing any expansion of its current DMA boundary to include these areas.	Page 9  (Section 3.6.1.2)
32	Describe any significant measures necessary to carry out the plan, e.g., institutional, financial, economic, etc.	There are no significant measures necessary to carry out the plan. There are no financial or economic limitations.  Construction will be financed by FMMI, with maintenance and operation to be financed by the Town.	Page 7  (Section 3.3)
33	Describe proposed method(s) of community financing.	The proposed methods of financing may include a combination of user fees, levy taxes (i.e., city sales, property taxes etc.) and grants and loan package.	Page 7  (Section 3.3)
34	Provide financial information to assure DMA has financial capability to operate and maintain wastewater system over its useful life.	A letter signed by the chief financial officer of the Town stating the Town's financial capability is included in Appendix C-4.  Additionally, the Town's detailed budget for existing sewer operations and a forecast/projection of future operations including the Town's Capital Improvement Plan is included in Appendix C-4.	Pages 7 and 25  (Sections 3.3 and 9.0 and Appendix C-4)
35	Provide a time line outlining period necessary for carrying out plan implementation.	The proposed WRF will be operational in the first quarter of 2010 and will serve areas currently served by the existing wastewater treatment system after system start-up.	Page 20  (Section 6.1)
36	Provide financial information indicating the method and measures necessary to achieve project financing (Section 201 CWA or Section 604 may apply).	Upon construction completion, the Town will own and operate the proposed WRF. A letter signed by the chief financial officer of the Town stating the Town's financial capability is included in Appendix C-4.  Additionally, the Town's detailed budget for existing sewer operations and a forecast/	Page 7 and 25  (Sections 3.3 and 9.0 and Appendix C-4)

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

		projection of future operations including the Town's Capital Improvement Plan is included in Appendix C-4.	
<b>37</b>	<p><b><u>IMPLEMENTABILITY</u></b></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>	<p>It is the Town's intent to own and operate the proposed WRF.</p> <p>The proposed WRF will service the areas that are currently served by the existing wastewater treatment system. No modifications to the existing collection system or DMA boundary are proposed for the implementation of the proposed WRF.</p> <p>Service areas of the Pinal and Cobre Valley Sanitary Districts are adjacent to the proposed WRF. However, these Sanitary Districts currently do not provide wastewater services in these service areas. Hence, the construction of the proposed WRF will not impact any existing wastewater facilities.</p>	<p>Pages 9 and 23                  (Section 3.6.1.2 and 7.2.1)</p>
<b>38</b>	<p>Describe how and when existing package plants will be connected to a regional system.</p>	<p>The proposed WRF will service the areas that are currently served by the existing wastewater treatment system. Upon the construction of the proposed WRF, the existing wastewater treatment system will be decommissioned in accordance with AAC R18-9.</p> <p>No modification to the existing collection system is anticipated for the implementation of the proposed WRF.</p> <p>According to Town representatives, there are no septic systems within the Town limits. Whether the Town has legal authority to require septic systems situated outside the Town limits, but within the Town's existing service area, to tie into the sewer system is questionable. However, the Town may offer those septic systems within the Town's service area but situated outside the Town limits the opportunity to tie to the Town's new WRF after the Town completes its wastewater collection system upgrade project, which is a future (and currently</p>	<p>Pages 5 and 23                  (Sections 3.1.2 and 7.2.1)</p>

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

		unfunded) project separate from and not covered by this CAAG 208 Plan Amendment.	
<b>39</b>	Describe the impact on communities and businesses affected by the plan.	<p>There are no anticipated impacts on communities and businesses as a result of this CAAG 208 Plan Amendment. The proposed WRF will replace the existing aging wastewater treatment system with a prescriptive best available demonstrated control technology facility. This facility will provide additional treatment capacity to the Town. Additionally, the proposed WRF will generate Class A+ quality effluent that will be reclaimed and put to beneficial uses. The effluent reuse, infiltration or discharge is not anticipated to increase odor or vector concern as the setback requirements set forth by ADEQ for these uses from private property are maintained for the proposed WRF.</p> <p>The construction of the proposed WRF has received strong community support as demonstrated by the support letters from neighboring communities/organizations.</p>	Page 23 (Section 7.2.2 and Appendix C-5)
<b>40</b>	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>The Town will continue using the existing wastewater treatment system until the start-up of the proposed WRF.</p> <p>According to Town representatives, there are no septic systems within the Town limits. Whether the Town has legal authority to require septic systems situated outside the Town limits, but within the Town's existing service area, to tie into the sewer system is questionable. However, the Town may offer those septic systems within the Town's service area, but situated outside the Town limits. the opportunity to tie to the Town's new WRF after the Town completes its wastewater collection system upgrade project, which is a future (and currently unfunded) project separate from and not covered by this CAAG 208 Plan Amendment.</p>	Pages 5 and 23 (Sections 3.1.2 and 7.2.1)

**CAAG 208 PLAN AMENDMENT CHECKLIST - CONTINUED**

41	<p><b><u>PUBLIC PARTICIPATION</u></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).</p>	To be completed by CAAG.	Not applicable
42	List location where documents are available for review at least 30 days before public hearing.	To be completed by CAAG.	Not applicable
43	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.	To be completed by CAAG.	Not applicable
44	Submit affidavit of publication for official newspaper publication.	To be completed by CAAG.	Not applicable
45	Submit responsiveness summary for public hearing.	To be completed by CAAG.	Not applicable