



**City of Phoenix
Water Services Department**

**Procedures for Review and Approval of General Aquifer Protection Permit Type 4.01
Privately Owned and Operated Sewage Collection Systems and Lift Stations**

Purpose: To provide the City of Phoenix Water Services Department (WSD) procedures for the review and approval of the design and construction of privately owned and operated sewage collection systems and lift stations that are regulated under Arizona's Aquifer Protection Permit (APP), General Permit Type 4.01.

Applicability: Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Article 3, requires Type 4.01 General Aquifer Protection Permit compliance for construction and operation of new sewage collection systems, public or private, that meet the criteria in R18-9-E301, Paragraph A. The criteria are as follows:

1. A sewage collection system or portion of a sewage collection system that serves downstream from the point where the daily design flow is 3,000 gallons per day based on Table 1, Unit Design Flows (AAC, Title 18, Chapter 9, Article 3, Part E), except a gravity sewer line conveying sewage from a single building drain directly to an interceptor, collector sewer, lateral, or manhole regardless of daily design flow;
2. A sewage collection system that includes a manhole; or
3. A sewage collection system that includes a force main or lift station serving more than one dwelling.

R18-9-A301 and R18-9-E301 contain design requirements and required submittal documentation for new sewage collection systems and lift stations. The City of Phoenix has additional design and submittal requirements that are described in this procedure.

WSD Distribution and Collections Engineering division will review the drawings for the private lift station and the force mains as County Health Delegate. Development Services Department (DSD) will review private sewer plans. If the project is located outside the annexed areas of the City, submit to Maricopa County Environmental Services Department.

Procedures for General Permit 4.01 Private Sewage Collection Gravity Systems:

1. Private sewage collection gravity system plans and other submittals shall be submitted to Development Services Department (DSD) in accordance with DSD Procedure "Summary of Aquifer Protection Program General Permit 4.01 Plan Review and Special Inspection Procedures for Privately Owned Sewage Collection Systems." This procedure will be provided by the DSD mechanical plan reviewer.
2. If required by law, the owner of the General Permit 4.01 Private Sewage Collection System shall obtain the necessary permits from the Federal, State, and County authorities. The owner shall report spills to the Federal, State, and County authorities as required by the governing authorities. The owner of the private sewage collection system shall be responsible for any enforcement actions, including civil or criminal penalties and fines.
3. Private sewage collection systems shall not be constructed within City of Phoenix right-of-way without authorization from WSD with the exception of making a perpendicular connection from onsite to the City's sewer system. Any private sewer lines located in City of

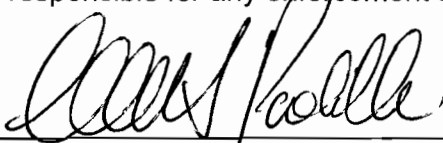
Phoenix right-of-way (including perpendicular connections) shall be constructed to City WSD material standards in accordance with the City of Phoenix WSD *Design Standards Manual for Water and Wastewater Systems*. In the ROW, a manhole will be required at sewer material changes. A revocable permit will be also required from the Streets Transportation Department except for perpendicular connections.

Procedures for General Permit 4.01 Private Lift Stations and Force Mains:

1. Design Requirements.
 - a. Design lift stations and force mains in accordance with the APP General Permit rules in A.A.C. R18-9-E301.
 - b. Provide a Bioxide feed system to control the level of hydrogen sulfides discharged into the City's sewage collection system.
 - c. Provide a wet or dry odor scrubber on the lift station wetwell and any force main air release valves.
 - d. All sewers that drain to the lift station shall be privately operated and maintained.
 - e. Provide a sign on the gate or another prominent spot that states that the lift station is privately owned and operated and is not the property of the City of Phoenix. The sign should also provide the 24-hour emergency number of the operator of the lift station.
 - f. If required by law, obtain the necessary permits from the Federal, State, and County authorities.

2. Initial Plan Review Submittal. Submit the following documents to WSD Technical Support Counter (City Hall, 8th Floor). Do not submit plans and other documents directly to the WSD plan reviewer. Plan review will not begin until all the following documents are submitted and review fees are paid at the counter.
 - a. Application for Approval to Construct and/or Notice of Intent to Discharge (Attachment A). Prepare in accordance with A.A.C. R18-9-A301(B) and E301(C). The person named on the form shall be the owner of the project or a person with fiduciary responsibility with an established legal entity (e.g. corporation, LLC, partnership). Only the owner or a person with fiduciary responsibility for the entity can be issued a permit. A separate Application for Approval to Construct and/or Notice of Intent to Discharge is not required for the lift station if a Notice of Intent to Discharge was completed and submitted to DSD for the associated private sewage collection system provided the lift station is listed in the scope of work.
 - b. Engineer's Design Report. Report shall at a minimum include the facility description, basis for design, design calculations, pump curves, manufacturer's equipment data sheets, flow projections, force main hydraulic calculations, odor control calculations, structural calculations, and electrical calculations. Report shall be signed and sealed by an Arizona registered professional engineer.
 - c. Complete Construction-Ready Design Plans and Specifications (2 sets). Plans and specifications for lift station shall be separate from other infrastructure plans. Plan shall have a cover sheet with approval blocks for WSD. Plans and specifications shall be signed and sealed by an Arizona registered professional engineer. Design engineer should also coordinate with their DSD plan reviewer to submit the lift station plans to DSD for review of site plan, grading and drainage, paving, landscaping, and building safety as required.

3. When plans are ready for approval, submit one mylar of the cover sheet for WSD signature. Provide copies of the approved set as directed by the WSD plan reviewer.
4. An Approval to Construct and/or Construction Authorization (Attachment B) shall be issued by the WSD County Health Delegate prior to commencing construction. An Approval to Construct and/or Construction Authorization is valid for two years.
5. Checklist for Approval of Construction and/or Discharge Authorization. 4.01 Private Lift Stations shall not be placed in service until an Approval of Construction and/or Discharge Authorization (Attachment C) has been issued by the WSD County Health Delegate. DSD will hold all Certificates of Occupancy until an Approval of Construction and/or Discharge Authorization has been issued by WSD. Approval of Construction and/or Discharge Authorization includes the following requirements:
 - a. An Engineer's Certificate of Completion (Attachment D) sealed and signed by a registered professional engineer in the State of Arizona, attesting that the lift station has been constructed to the requirements of AAC R18-9 and this procedure.
 - b. Drawings of Record, with each changed sheet sealed and signed by a registered professional engineer in the State of Arizona, are submitted the City of Phoenix, Water Services Department.
 - c. A signed certification that confirms that an operation and maintenance (O&M) manual exists for the lift station, the location of the O&M manual, and that the O&M manual is available to the City, County, or State upon request.
 - d. A signed certification that a certified operator at a grade appropriate for that facility shall be employed to operate and maintain the system. "Certified Operator" means an operator who holds a current certificate issued by ADEQ in the field of wastewater collection. Provide the 24-hour emergency number of the operator of the lift station.
 - e. Recorded Conditions, Covenants and Restrictions (CC&R's) or Articles of Incorporation providing evidence of financial provisions regarding the operation and maintenance responsibility of the lift station by the Homeowners Association or other ownership group shall be submitted to the WSD for verification. If there is a single owner for the property, then a simple statement of financial responsibility signed by the responsible party for all operation, maintenance, and replacement costs is acceptable. The CC&R's or statement of financial responsibility will identify the operator of the system and provide a 24-hour phone number for questions and complaints regarding the lift station. The budget for operation and maintenance shall include a sinking fund for replacement of the lift station.
 - f. All other relevant information to verify that the facility conforms to the terms of the 4.01 General Permit requirements and this policy.
5. Operation of Lift Station. Operate and maintain the lift station in accordance with R18-9-E301F. The owner shall report spills to the Federal, State, and County authorities as required by the governing authorities. The owner of the private lift station shall be responsible for any enforcement actions, including civil or criminal penalties and fines.



Carlos Padilla, P.E.
Assistant Director for Water Services Department