Arizona Department of Transportation

Office of Environmental Services
206 South 17th Avenue, MD 102A
Phoenix, Arizona 85007

Stormwater Management Plan
2008 Annual Report
MS4 Permit No. AZS000018

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Prepared for:

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APPENDICES

DEFINITIONS

Arizona Administrative Code (AAC) - Arizona Administrative Code.

ADEQ - Arizona Department of Environmental Quality.

Arizona Pollutant Discharge Elimination System (AZPDES) - The State program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of CWA.

Best Management Practice (BMP) - Permit condition used in place of or in conjunction with effluent limitations to prevent or control the discharge of pollutants. BMPs may include, but are not limited to, treatment requirements, operating procedures, or practices to control plant/facility site runoff, spillage, leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may also include schedule of activities, prohibition of practices, maintenance procedure, or other management practice.

Clean Water Act (CWA) - The Clean Water Act is an act passed by the U.S. Congress to control water pollution. It was formerly referred to as the Federal Water Pollution Control Act of 1972 or Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), 33 U.S.C. 1251 et. seq., as amended by: Public Law 96-483; Public Law 97-117; Public Laws 95-217, 97-117, 97-440, and 100-04.

Code of Federal Regulations (CFR) - A codification of the final rules published daily in the Federal Register. Title 40 of the CFR contains the environmental regulations.

Composite Sample - Sample composed of two or more discrete samples. The aggregate sample will reflect the average water quality covering the compositing or sample period.

Discharge Monitoring Report (DMR) - The form used (including any subsequent additions, revisions, or modifications) to report self-monitoring results by AZPDES permittees. DMRs must be used by approved states as well as by EPA.

EPA - Environmental Protection Agency.

Grab Sample - A sample that is taken from a waste stream on a one-time basis without consideration of the flow rate of the waste stream and without consideration of time.

Municipal Separate Storm Sewer System (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned by a state, city, town or other public body, that is designed or used for collecting or conveying stormwater, which is not a combined sewer, and which is not part of a publicly owned treatment works. Commonly referred to as an "MS4" [40 CFR 122.26(b)(8)].

Permittee - means the Arizona Department of Transportation.

Stormwater - Stormwater runoff, snowmelt runoff, and surface runoff and drainage [40 CFR 122.26(b)(13)].

Stormwater Management Plan (SWMP) - A comprehensive plan for implementation of AZPDES permit requirements.

Waters of the United States - All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide. Waters of the United States include but are not limited to all interstate waters and intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, play lakes, or natural ponds. [See 40 CFR 122.2 for the complete definition.]

EXECUTIVE SUMMARY

The Arizona Department of Transportation (ADOT) is submitting this 2008 Stormwater Management Plan (SWMP) Annual Report describing the activities and programs implemented from July 1, 2007 through June 30, 2008, as part of its Municipal Separate Storm Sewer System (MS4) Phase I Permit. This Annual Report is prepared pursuant to ADOT's National Pollutant Discharge Elimination System (NPDES) Permit No. AZS000018. A copy of this permit has been provided in Appendix A. This permit expired on August 31, 2002 and was administratively continued by the Environmental Protection Agency (EPA). However, the Arizona Department of Environmental Quality (ADEQ) has since been authorized primacy of the NPDES program and issued ADOT an Arizona Pollutant Discharge Elimination System (AZPDES) permit which came into effect on September 19, 2008 and identified as AZPDES Permit No. AZS000018-2008. This is the last reporting year under NPDES Permit No. AZS000018.

The permit stipulates that an annual report be prepared and submitted to the permitting authority. This annual report addresses the stipulations established in the following documents:

- Title 40 Code of Federal Regulations (CFR) 122.26 and 122.42 26 as incorporated into reference by Arizona Administrative Code (AAC) R18-9-A905
- AZPDES permit No. AZS000018, effective October 1, 1999
- AAC Title 18, Chapter 9, Article 9, effective December 7, 2001
- ADOT Part 1 Permit Application dated November, 1991
- ADOT Part 2 Permit Application dated November, 1992
- Certification Statement

In compliance with these documents, the annual report includes discussion of the components of the SWMP implemented by ADOT, proposed changes to the SWMP, summary of data collected throughout the reporting year, annual expenditures, enforcement actions, inspections, public education programs, and water-quality improvements or degradation. The practices which implement the SWMP are continuously being reviewed and improved as new data, research, and technology become available.

The annual report is divided into thirteen categories: (1) Maintenance, (2) Construction, (3) Design, (4) Transportation Control Measures, (5) Stormwater Monitoring, (6) Dry Weather Screening, (7) Assessment of Best Management Practices (BMPs), (8) Office of Environmental Services (OES), (9) Statewide Permit Application, (10) Stormwater Advisory Teams (SWATs), (11) Proposed Changes, (12) Assessment of Water Quality Improvement or Degradation, and (13) Annual Expenditures. This annual report will be used by ADOT to assess the performance of its stormwater management program and to establish long-term assessment strategies.

CERTIFICATION STATEMENT

MUNICIPAL SEPARATE STORM SEWER SYSTEM ANNUAL REPORT FOR THE REPORTING YEAR ENDING June 30, 2008

AZPDES Permit Holder: Arizona Department of Transportation

Period Covered by This Report: July 1, 2007 through June 30, 2008

AZPDES Permit Number: AZS000018

Person to contact concerning information contained in the report:

Todd G. Williams, M. Sc.
Director, Office of Environmental Services
Arizona Department of Transportation
206 South 17th Avenue, MD 102A
Phoenix, Arizona 85007
602.712.~~7540~~ 7391

As required by Title 40 CFR Section 122.22(b)(2) and incorporated into reference by AAC R18-9-A905:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering this information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

As required by AZPDES Permit Number AZS000018:

I certify that stormwater management program revisions previously approved by EPA, after consultation with the Arizona Department of Environmental Quality (ADEQ), were implemented on schedule.

Todd G. Williams

Todd G. Williams, M. Sc
Director, Office of Environmental Services
Arizona Department of Transportation

September 29, 2008
Date

1 MAINTENANCE

1.1 Street Sweeping and Litter Pick-Up – Phoenix and Tucson

1.1.1 Street Sweeping

Street sweeping within ADOT's Phoenix District occurs on a weekly basis by contractors. Sweeping is normally completed between the hours of 8 PM to 4:30 AM. Contractors also respond to emergency situations within 30 minutes of being contacted by ADOT. The sweeping contractors are required to document and inform ADOT of any unusual spills or dumping observed during sweeping.

Street sweeping within the Tucson District is performed on a yearly, quarterly, monthly, or bi-weekly basis depending upon the area.

1.1.2 Mechanized Litter Pick-up

Debris in the Phoenix District is removed manually by ADOT personnel and the sweeping contractor on a schedule coinciding with the street sweeping schedule, or on a weekly or as-needed basis. Debris removed includes litter, dead animals, car parts, and other discarded materials. ADOT does not maintain records of the amount of debris removed by its personnel.

ADOT's Tucson District no longer conducts mechanized litter pick-up by a private firm. This activity is performed manually by ADOT personnel and prison work crews. Litter pick-up is performed two times per week and records are maintained by the Tucson District Office (See Section 1.1.3 for litter removal amounts).

1.1.3 Manual Litter Pick-up

Manual litter pick-up occurs within the Phoenix and Tucson Districts as per the procedures described in the mechanized litter pick-up description above. Additionally, ADOT maintains on-call contractors in both Phoenix to manually remove debris on an as-needed basis. This activity includes the removal of litter and debris at the roadway edge and within the right-of-way. Locations with higher traffic volumes require more frequent cleaning. Each district reports the following amount of litter removed:

- The Phoenix District removed 775 tons of litter during Fiscal Year 2007/2008
- The Tucson District removed 488.7 tons of litter during Fiscal Year 2007/2008

In the event that hazardous containers or other materials are found during litter pick-up by ADOT personnel or the on-call firm, crews are instructed leave them in place so the materials can be tested. Staff members are instructed to contact the ADOT Safety and Health. ADOT maintains a contract with a hazardous materials handler to analyze and properly dispose of such materials. Wastes determined to be hazardous are properly disposed by the contracted company. Both the Phoenix and Tucson Districts report that no hazardous materials have been found during the past year.

1.1.4 Adopt A Highway Program

The ADOT Adopt A Highway Program (AAH) helps reduce litter on Arizona highways by encouraging volunteers to clean up litter and by heightening public awareness of the need to keep the highways clean. AAH has two separate programs: (1) the volunteer program and (2) the sponsor program. The volunteer program allows organizations to adopt designated sections of highway for which they are responsible to pick up litter four times per year (once per quarter). The sponsor program requires 26 pick-ups per year in the Phoenix District and 12 pick-ups per year in the Tucson District. ADOT or sponsor contractors erect signs, which call the motorist's attention to the litter control program. The signs also credit the adoptive organization for its effort in keeping the highway clean. The following is the amount of waste removed within the Phase I areas and the number of miles adopted within each area:

- The Phoenix District AAH removed 154,732 bags of litter during Fiscal Year 2007/2008. This is a slight decrease from the 163,000 removed in the previous reporting year. This litter was removed by 118 companies that are AAH sponsors and includes several contract providers.

- The Tucson District AAH removed 7,037 bags of litter during Fiscal Year 2007/2008. This is a marked increase from the 1,139 bags removed in the previous reporting year. The reason for the increase is due to the higher level of participation in the AAH program within the Tucson area. Litter was removed by various private parties, organizations and use of inmate labor. Four additional miles of highways were adopted by sponsors for the Tucson District AAH in the last year.

1.2 Storm Sewer System Maintenance – Phoenix and Tucson

1.2.1 Pump Station Maintenance – Phoenix Only

All pump stations within the Phoenix drainage system have been inspected once per week during the past year. If ADOT personnel determine that a pump station requires cleaning, the wells are dewatered with a hydro-vac and sediment and debris are removed. No discernable pollutants have been noted for any Phoenix pump stations during the past year.

1.2.2 Tunnel Maintenance – Phoenix Only

ADOT owns and operates three large drainage tunnels (18' to 21' diameter) in the Phoenix area. The profiles of the tunnels have sag points that tend to trap sediment during low velocity flows upstream from their outlet structures. All three tunnels discharge into the Salt River. The East and West tunnels discontinued pumping due to mechanical failure and lack of parts due to the age of the engines while the Price Road tunnel was dewatered and only partially inspected the presence of silt and mud inside.

1.2.3 Storm Sewer Maintenance – Phoenix and Tucson

ADOT maintains large diameter storm sewers (those large enough to walk through) within the Phoenix and Tucson Districts. These storm sewers have been inspected yearly and cleaned on an as-needed basis. The smaller storm sewers are self-cleaning and therefore do not require scheduled inspections and cleaning. No pollutants have been detected.

1.2.4 Storm Sewer Inlet/Catch Basin Maintenance – Phoenix and Tucson

Inlets and catch basins within the Phoenix District have been inspected and cleaned on an as-needed basis within the past year. Additionally, storm sewer inlets and catch basins within landscaped areas are maintained by ADOT's Phoenix District Maintenance. There has been no excessive or unusual clogging of storm sewer inlets or catch basins in the Phoenix District during the past year.

The ADOT Tucson District inspects all of its storm sewer inlets and catch basins on a yearly basis. No serious or unusual clogging of storm sewer inlets or catch basins occurred during the past year.

1.2.5 Open Channel Maintenance – Phoenix and Tucson

Open channels within Phoenix's drainage system are inspected annually and cleaned at least once every three years. There is an on-call clean-out service available on an as-needed basis. ADOT performed cleaning and maintenance of open channels in the west valley near the Agua Fria River and along portions of I-10. No unusual clogging was reported.

The Tucson District conducts open channel inspections yearly. Tucson also maintains an on-call clean-out service. No unusual clogging was reported within the Tucson District.

1.2.6 Culvert Maintenance – Tucson Only

Each of the cross-drainage culverts under ADOT highways has undergone a formal inspection once within the past year. Inspection of these culverts has coincided with storm events. The Tucson District reports that no serious clogging or maintenance issues have occurred over the past year.

1.3 Control of Illicit Discharges

1.3.1 Permit System – Phoenix and Tucson

Storm sewers that connect and drain into ADOT's MS4 are controlled by one of two means: an Intergovernmental Agreement (IGA) or a connection permit (encroachment permit). If the connection is made during construction of the ADOT storm sewer, an IGA is formed between ADOT and the city/agency that is discharging to ADOT's system. If the connection is made subsequent to construction, the discharger is required to obtain a connection permit. If a non-permitted connection is made to ADOT's storm sewers, enforcement actions may be taken. These illegal connections may be removed or an encroachment permit required. ADOT issued a stormwater management guidance document for external parties on September 1, 2006. A copy of *Stormwater Guidance for External Parties* was placed on the ADOT website and on the District Permits webpages on September 15, 2006. The Phoenix and Tucson Districts report they have not issued any connection permits during the fiscal year 2007/2008.

1.3.2 Inspection – Phoenix and Tucson

Inspections for illicit discharges to ADOT's storm sewer system within the Phoenix and Tucson Districts was conducted within the past year. Report of any illegal discharges is

submitted by ADOT Road Maintenance crews who may observe them while performing normal activities. Illicit discharges may also be identified as a result of complaint calls. No illicit discharges have been identified during the past year.

1.3.3 Dry-Weather Screening – Phoenix and Tucson

During the past year, dry weather screening was conducted on at least 20% of the stormwater outfall discharge sites in the Phoenix and Tucson metropolitan areas. Nine outfalls within the Phoenix area were inspected and three outfalls within the Tucson area were inspected. Section 6 contains further details concerning dry weather screening.

1.3.4 Pump Station Gas Detection – Phoenix Only

ADOT storm sewer pump stations are equipped with gas detection systems, which send an alarm signal to the Phoenix District Office in the event combustible gasses are detected in the wet well. The alarm is monitored on a 24-hour basis. If the alarm is sounded, pump maintenance personnel can respond in 15 to 20 minutes to shut off the pump if necessary. ADOT reports no detection of combustible gas in the pump stations within the past year.

1.3.5 Discharges to ADOT's System

Chandler Sewage Spill

A City of Chandler sewage spill released into ADOT's drainageway on October 16, 2007 from the Kyrene Lift Station located at 825 South Kyrene Rd, Chandler, Arizona. On the day the release occurred, a new valve had been installed by a contractor at the Kyrene Lift Station. The contractor had neglected to install the caps when the work day was completed. As a result, when the pumps energized at 3:00am raw sewage was pumped through an open cap resulting in the discharge of approximately 45,000 gallons of untreated sewage into ADOT's drainageway along Loop 202. The National Response Center was notified of the discharge and a voicemail was left for the City of Chandler HazMat Team; however, no reports of additional activity were received. ADOT collected two surface water samples from the Loop 202 drainageway on October 26, 2007 in an attempt to evaluate the potential impact of the release to the retention basins located at the southwest corner of Loop 202 and Kyrene Rd. One sample was collected upstream from the release point (McClintock and Loop 202) as a background and the other sample collected downstream (Kyrene and Loop 202) from the release point. These samples were analyzed for fecal coliform, chemical oxygen demand (COD), biological oxygen demand (BOD), total suspended solids (TSS), RCRA metals, and nitrate. Sample analyses concluded that while the sewage spill may have impacted water quality in the drainageway at the time of release, there were no exceedances of the Arizona Surface Water Quality Standards at the time sampling was conducted. No excessive odor or negative impacts on wildlife or their habitat was immediately identifiable during the sampling event.

Loop 101 and Agua Fria Discharges

Roadway workers identified four illicit discharges in September 2007 from private residences into ADOT Right of Way along the Loop 101 and Agua Fria River. The discharges appeared to be swimming pool water that was being discharged via garden hoses through holes cut into the block walls of the residential back yards. ADOT identified addresses and sent a cordial letter advising the parties that the discharge was not a permitted

activity and they must cease. All parties ceased and plugged the holes in their block walls. One party contacted ADOT directly and discussed the discharges and the relation to water quality.

1.4 Emergency Response Program – Phoenix and Tucson

The State of Arizona has a plan to respond to accidental spills of hazardous materials called the State of Arizona Hazardous Materials Response and Recovery Plan. This plan defines authority and responsibility for individual State agencies in response to accidental spills. It also establishes an emergency management framework for joint state agency operations. ADOT signed a memorandum of understanding along with other State agencies, committees, and commissions that indicated their concurrence with the plan. Since then, ADOT has been actively carrying out its responsibilities under the plan.

The Phoenix District has created its own response team called ALERT (an acronym for ADOT Local Emergency Response Team) that responds to all types of emergencies on ADOT's roadways in the Phoenix District including spills of hazardous material. ADOT has prepared an ALERT Manual designating individual responsibility and lists key emergency personnel within ADOT and local communities. The ALERT members are on-call 24 hours a day, 7 days a week. Eight employees of the District ALERT Team are on call 24 hours a day, 7 days a week to respond to emergencies. Their duty in the event of a hazardous material spill is to contain the spill, manage traffic problems, and manage the spill clean-up.

In the event of an accidental spill, the Department of Public Safety (DPS, Highway Patrol) contacts the ADOT on-call ALERT members directly. DPS, ADEQ, and ADOT district maintenance crews all respond to the spill. ADOT's responsibilities include:

1. Coordinate with local fire and police departments
2. Contain spill by blocking storm drains, building dikes, etc.
3. Control of traffic problems
4. Manage the cleanup of the hazardous materials

The Phoenix District Traffic Operation Center (TOC) is manned 24 hours a day, 7 days a week for emergency calls and equipment monitoring.

ADOT adopted the current call back policy on 12/10/2002 to ensure that adequate staff is available to meet unexpected contingencies and emergencies. Procedures are in place to call any employee back to work to perform unanticipated services outside of their regularly scheduled hours. In addition, ADOT's Safety and Health Section employs a statewide emergency response specialist (Courtney Perrier-Bear, 520-838-2826) who responds to emergencies for all districts. ADOT also employs an Emergency Response Specialist II (Travis Qualls, 602-712-4407) who responds to all statewide hazardous materials emergency responses.

The Tucson District has six separate maintenance groups that respond to all types of emergencies on ADOT's roadways including spills of hazardous material. Each maintenance group has three members who are available to DPS and Highway Patrol 24 hours a day, 7

days a week. The duty of these members is to contain the spill, manage traffic problems, and manage the spill clean-up.

In most cases, the individual or company that is guilty of the spill is held responsible for contracting with a waste management company to clean it up. However, in the event that the guilty party either cannot be identified or does not have the necessary resources, ADOT has risk management funds in place to address such spills.

1.5 Erosion Control Practices – Phoenix and Tucson

1.5.1 Erosion Control Maintenance – Phoenix and Tucson

The Phoenix and Tucson Districts have ongoing maintenance programs to provide permanent erosion control in areas of erodible soils. These maintenance programs include soil stabilization, reseeding bare ground, turf renovation, landscape irrigation maintenance, granite erosion control, and landscaping. Inspection of these areas has occurred on an as-needed basis within the past year and routine maintenance has been performed as conditions require.

1.5.2 Irrigation System Pressure Detection – Phoenix and Tucson

ADOT's landscape irrigation system is continuously monitored for water pressure and flow through the use of telemetry. Malfunctions or leaks in the irrigation system are detected by pressure sensors automatically and are directed to a computer terminal at the maintenance district offices.

The irrigation system provides immediate detection of broken sprinklers and water pipes, which allows repair crews to respond immediately. A side benefit of this system is control of erosion. Since ADOT repair crews can respond almost immediately to water system failures, there is less chance of soil erosion as a result of broken water pipes. Normal upkeep and maintenance of the irrigation system has occurred within the past year with no significant system failures reported for the Phoenix and Tucson District during Fiscal Year 2007/2008.

1.6 Roadside Vegetation Management Program – Phoenix and Tucson

ADOT maintains a statewide roadside vegetation management program to control annual weeds that tend to displace more desirable perennial plants. The annual weeds provide little if any erosion control since they do not have extensive root systems and they die out or blow away each year. On the other hand, grasses and other perennial specials have extensive root systems that hold the soil in place. The vegetation management activities include chemical spraying, mowing, blading, reseeding/planting, fertilizing, and brush removal. In the case of chemical spraying, ADOT commissioned a study to determine environmentally acceptable methods of applying herbicides. The ADOT Roadside Vegetation Management Program has been carried out during the past year with no significant difficulty.

1.7 Stormwater Pollution Prevention Plan for Maintenance Yards – Phoenix and Tucson

Maintenance yards within the Phase I area are regulated as part of ADOT's MS4 permit. These yards include facilities for roadway and landscape equipment storage and

maintenance, chemical storage, sign manufacturing, and bulk paint storage for roadway striping. The ADOT permit requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) for each maintenance yard in the Phoenix and Tucson MS4 areas.

SWPPPs are in place for six maintenance yards in Phoenix and two maintenance yards in Tucson. The EPA document entitled "Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans" was used to develop the SWPPPs. Each SWPPP includes the following elements: (1) Identification of a pollution prevention team, (2) maps detailing drainage patterns, (3) materials inventory, (4) description of exposed significant material, (5) potential pollutant source identification, (6) BMPs identification, (7) implementation, and (8) worksheets for documenting discharges. The SWPPPs are on file at the maintenance yards, Tucson District office, and at OES headquarters in Phoenix. The SWPPPs are implemented by the pollution prevention team.

2 CONSTRUCTION – STATEWIDE

The procedures followed for construction projects have not changed significantly from the previous year. These procedures for complying with the AZPDES general permit for construction are outlined in the ADOT *Erosion and Pollution Control Manual for Highway Design and Construction* dated June 1995 and updated in 2004.

2.1 Develop Standards for BMPs – Erosion and Pollution Control Manual

ADOT developed standard details and special provisions for BMPs to be used on ADOT construction projects. These are outlined in the ADOT *Erosion and Pollution Control Manual*. This document includes several typical BMPs such as silt fences, mulching, and temporary dikes. The BMP details are updated regularly and posted on the Roadside Development webpage.

The design engineer, project manager, and the ADOT Roadside Development Section select structural BMPs from this standard manual for use in the Special Provisions for each project. Special Provisions also include standard contract language on the "good housekeeping" procedures such as proper solid waste management and chemical storage. The updated manual has incorporated AZPDES construction permit requirements and is available to ADOT contractors.

2.2 Training for Stormwater Pollution Prevention Plans

The ADOT Resident Engineers and their staff within each district office of ADOT are trained in the area of stormwater erosion control and "good housekeeping" procedures on construction sites. Many ADOT personnel have been attending the Erosion Control Coordinator (ECC) certification training implemented in April 2005 for contractor personnel. The Contractor's ECC is responsible for preparation and implementation of the SWPPP. ADOT project engineers are responsible for review of the SWPPP and to oversee the implementation of the plan. Contractors hired by ADOT to perform work on construction sites are also invited to attend ADOT training sessions. New training courses for ADOT specific AZPDES requirements are being developed to raise the awareness of ADOT personnel as to individual and collective responsibilities to the AZPDES program.

2.3 Construction Stormwater Pollution Prevention Plans

2.3.1 Plan Review at 60% Submittal Stage

The design engineers, project manager, and Roadside Development Section review the construction plans at the 60% submittal stage to determine if there are any erosion control measures that need to be incorporated into the plans. The design of temporary and permanent sediment and erosion control measures is an integral part of the design process.

2.3.2 Plan Review at 95% Submittal Stage

The District Engineer's office, the roadway designers, and the erosion control specialists review the construction plans at the 95% submittal stage with the following objectives:

- Review Permanent Erosion Controls – The proposed permanent erosion control measures are reviewed and any necessary changes are incorporated.
- Prepare Temporary Erosion Control Plan for construction activities – The Resident Engineer and the Roadside Development Section designers and erosion control specialists mark up the roadway plan and profile sheets with the BMPs that they anticipate will be required to control erosion during the different stages of construction.

2.3.3 Preparation of SWPPP

A SWPPP is prepared for each construction project that is one acre or more of soil/land disturbance and erosion /sediment control as well as water quality protection BMPs are incorporated into the construction plans and specifications. In January 2006, ADOT issued a construction SWPPP template to be used on all construction projects with one acre or more of soil/land disturbance. The template includes a revised construction inspection log that replaces the inspection checklist currently located in the ADOT *Erosion and Pollution Control Manual. A SWPPP* template is available for download on ADOT's website at www.azdot.gov/adot_and/storm_water/stormwater.asp#three.

2.4 Procedures Following Award of Contract

2.4.1 Critique Erosion Control Plan

After the award of the construction contract, the Resident Engineer attends the partnering session or pre-construction meeting and reviews the SWPPP with the contractor. At this meeting the proposed temporary control measures are adjusted and revised, if necessary, to accommodate field conditions and the contractor's scheduling and phasing of the project.

2.4.2 Prepare Revised Plan

Changes required to the SWPPP as a result of the discussion at the above meeting are incorporated. The Resident Engineer keeps the original and a copy remains with the contractor on the job site.

2.4.3 Certification of SWPPP

Both the contractor and the ADOT Resident Engineer sign the SWPPP. In the case of a project with local government participation, both ADOT and the local municipality sign the SWPPP.

2.4.4 Prepare Notice of Intent (NOI)

The ADOT Resident Engineer and the contractor each prepare separate NOIs and submit them to ADEQ at least 48 hours before any construction begins. In accordance with the general permit, ADOT is required to submit an NOI because of its control over the job specifications; the contractor is required to submit an NOI because he has day-to-day control over the job.

The NOIs submitted by ADOT are signed by the District Engineer or his representative. The NOI is then either submitted electronically through ADEQ's Smart NOI system or delivered by means of certified mail to: Stormwater Notice of Intent, Arizona Department of Environmental Quality, 1110 West Washington, 5415B-3, Phoenix Arizona 85007.

2.5 Installation of Erosion Control

The Resident Engineer works closely with the contractor on the installation of the erosion control measures. Revisions that occur as a result of changing field conditions or construction phasing and scheduling are noted on each copy of the SWPPP.

2.6 Inspections

The engineer and the ECC inspects the project at least every 14 calendar days, and also within 24 hours after any storm event of 0.50 inches or more. ADOT has also created a performance evaluation system consisting of two checklists used on inspections conducted by the Construction Group.

2.7 Notice of Termination (NOT)

ADOT and the contractor each submit a NOT after the permanent erosion and sediment control measures are in place and the project has met final stabilization criteria as specified in the ADOT *Erosion and Pollution Control Manual*.

The ADOT NOT is signed by the District Engineer or his representative and either submitted electronically through ADEQ's Smart NOI system or mailed by means of certified mail to ADEQ at the following address: Stormwater Notice of Termination, Arizona Department of Environmental Quality, 1110 West Washington, 5415B-3, Phoenix Arizona 85007.

In the case of an urban highway project, where the landscaping contract comes after the paving project, the following rule is followed for submittal of a NOT:

- If the bare ground is not seeded and mulched as part of the paving project, the contractor will submit an NOT when the construction contract is complete. Then, at the start of the subsequent landscaping contract, the landscaping contractor will

submit an NOI to obtain a new permit to cover the landscaping activities. ADOT maintains permit coverage for the duration of the paving and landscaping projects.

- If seeding and mulching are part of the paving project, ADOT cannot submit a NOT until final stabilization is achieved. Therefore, under this condition ADOT maintains temporary erosion controls in the area and performs regular inspections (in accordance with the ADEQ general construction permit) during the interim period after the paving project is complete. In this case the paving contractor submits a NOT at the end of the paving contract. Until final stabilization is achieved, ADOT has sole responsibility.

2.8 Retention of Records

Records are maintained for a minimum of 3 years after the submittal of the NOT.

2.9 Other AZPDES Permit Requirements

2.9.1 Asphalt and Concrete Plants

Asphalt and concrete plants activities that occur on-site in support of ADOT construction activities are regulated under ADEQ's Multi Sector General Permit (MSGP) for industrial activities. This includes sites where the plants are portable and located within ADOT's right-of-way. The contractor or subcontractor is held responsible for filing the necessary documents with ADEQ to obtain an MSGP permit for industrial activities. Specifically, the permit authorizes discharges from construction support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, etc.) for local project(s) where an operator is currently involved (e.g., a concrete batch plant providing concrete to several different highway projects in the same county). ADOT cannot file the documents because ADOT does not own and operate the plants. Authorization of this discharge is contingent upon (1) the support activity not being a commercial operation serving multiple, unrelated construction projects and not operating beyond the completion of the last related construction project it serves; and (2) appropriate controls are identified in the SWPPP for the discharges from the support activity areas.

2.9.2 ADOT Materials Sources

Materials sources require separate coverage under ADEQ's and EPA's MSGP for industrial activities. The owner and/or operator of commercial materials sources and contractor-owned sources, shall determine whether they need to obtain permit coverage. In the case of ADOT-owned materials sources, ADOT obtains permit coverage, prepares the SWPPP, and requires each contractor that works the source area to file for coverage under the MSGP using ADOT's SWPPP. The contractor is required to leave the source area in a reclaimed state by finish-grading the site and seeding the bare ground in a manner acceptable to ADOT.

3 DESIGN

The design procedures described below have not been changed significantly from previous years.

3.1 Landscaping

The design of ADOT highways includes landscaping to provide permanent erosion control on finish-graded construction slopes. The type of the landscape design depends on the character of the adjacent land. For example, in urban areas, bare ground is covered with decomposed granite, and trees and shrubs are planted to provide an aesthetically pleasing appearance and help to further stabilize soils. Landscape irrigation systems are designed into these projects to foster plant growth and insure plant life in the arid environment. In the rural areas, the construction slopes are seeded with native seed mixes and treated with straw mulches. In both cases, bare ground is stabilized to provide permanent erosion control.

Reclaimed water is used for irrigating vegetative areas within some medians, rights-of-way and landscaped areas. Areas using reclaimed water are indicated by purple water valve boxes and are maintained as per ADOT requirements.

3.2 Retention/Detention Basins

ADOT's storm sewer system includes several retention and detention basins. The old detention basins were designed to control stormwater quantity rather than quality, and therefore, they were typically designed as offline-type basins which store the peak of the flood and provide little in terms of reducing stormwater pollutants. There are, however, several retention basins, which drain by infiltration and thereby reduce the amount of pollutants discharged to the receiving waters.

ADOT recognizes that detention basins designed for the dual purpose of managing stormwater quantity and quality can be quite effective in reducing pollutant loads. Therefore, where appropriate, new detention basins are designed to capture stormwater and help remove pollutants.

3.3 Erosion Control

The design of ADOT's highways includes many permanent erosion control features to protect areas subject to erosion. Examples of the features include channel linings, culvert outlet protection, slope drains, check dams, etc. These erosion control features are reviewed by ADOT on an on-going basis to determine their effectiveness and to consider new alternatives.

3.4 Other Structural Controls

ADOT was required to consider the use of other structural controls as part of their AZPDES MS4 permit. Examples of these other controls include grassy swales or filter strips, media filtration, and oil/water separators. The design engineers of ADOT's Roadway Design Group have been notified of this permit requirement and are developing alternative structural BMPs. Roadway Design has also updated the ADOT drainage report requirements for external party connections to the ADOT conveyance system (see Consent Order 90-day Status Report dated October 1, 2005). The Drainage Design Section is currently in the process of finalizing the ADOT *Post-Construction Best Management Practices (BMP) Manual*.

4 TRANSPORTATION CONTROL MEASURES

There is no significant change to report in these control measures.

4.1 Vehicle Emissions Testing

ADEQ requires emissions testing of certain vehicles (depending on year of manufacture) registered in Maricopa (Phoenix Area) and Pima (Tucson Area) Counties. Vehicles that do not meet minimum requirements are not registered until appropriate repairs have been made and the vehicles are re-tested to ensure compliance with emission standards.

4.2 High Occupancy Vehicle Lanes

ADOT is incorporating High Occupancy Vehicle (HOV) lanes into the design and construction of the urban highway system. These lanes are restricted to use by buses and carpools. ADOT also funds advertising campaigns to promote the use of the HOV lanes. The intent of providing these lanes is to encourage mass transit and thereby reduce traffic volume.

4.3 Intelligent Vehicle Highway System

Intelligent Vehicle Highway System (IVHS) is an electronic system of metering highway on-ramp traffic, coordinating traffic signals, controlling electronic billboards and monitoring traffic volumes. The system is monitored 24 hours per day at the TOC. This system helps to minimize stop-and-go traffic, which reduces pollutant generation and deposition. Idling vehicles in traffic generate more pollutants because of incomplete fuel combustion.

4.4 Clean Air Campaign

ADOT is an official sponsor of the Clean Air Campaign. This is the "Don't Drive One in Five" Campaign, which encourages commuters to use an alternative means of transportation one day out of the week.

4.5 Capitol Ride Share Program

ADOT provides promotional materials to encourage State employees to reduce travel. This includes telecommuting, flexible work schedules, assisting in carpooling, and providing mass transit information.

5 STORMWATER MONITORING

Stormwater monitoring was conducted within the Phoenix MS4 area. The data collected is used to monitor BMP effectiveness and adjust those BMPs as-needed. The monitoring was conducted at two basins along located near the northwest corner of Gilbert Rd and Loop 202 (identified as Basin 1 and basin 2) and an ADOT outfall to the Salt River near Mesa Dr and Loop 202. A summary of the dates sampling occurred and the results is provided below:

- July 17, 2007: The analytical results for Basin 2 had elevated levels of total zinc and phosphorous, and dissolved copper and zinc. Stormwater flow at Basin 1 and the Salt River were not of an adequate amount to fill the Nalgene sample bottles.

- July 24, 2007: The analytical results for the Salt River had elevated levels of total lead, zinc and phosphorous. Stormwater flow at Basin 1 and Basin 2 were not of an adequate amount to fill the Nalgene sample bottles.

- July 26, 2007: The analytical results for the Salt River and Basin 2 had elevated levels of dissolved copper, total lead and chromium. Stormwater flow at Basin 1 was not of an adequate amount to fill the Nalgene sample bottles.

- December 4, 2007: The analytical results for the Salt River had slightly elevated levels of total copper, lead, zinc and phosphorus. Stormwater flow at Basin 1 and Basin 2 were not of an adequate amount to fill the Nalgene sample bottles.

Stormwater monitoring was conducted in accordance with ADOT's *Storm Water Monitoring Guidance Manual for MS4* Activities dated February 1, 2005. Stormwater monitoring summary results are provided in Appendix B. The sampling results show typical highway constituents in the stormwater runoff and show the high variability in the sampling of stormwater.

6 DRY WEATHER SCREENING – PHOENIX AND TUCSON

During the past year, ADOT conducted dry weather screening for stormwater outfalls. A minimum of 20% of ADOT outfalls were screened during this reporting year. There are a total of 48 major outfalls in the Phoenix area and 14 major outfalls in the Tucson area. ADOT has integrated the existing stormwater system, including major outfalls, into a geographic information system (GIS). ADOT continuously updates the dataset to include future stormwater infrastructure along ADOT roadways. ADOT's Phase I and Phase II drainage maps are available on ADOT's website.

To fulfill the requirements for 2007-2008 reporting year, ADOT's list of major outfalls was used to select sites for dry weather screening activities. Visual inspections were performed at nine outfalls in Phoenix and three outfalls in the Tucson metropolitan area. The purpose of the dry weather screening is to identify illicit connections and/or illegal dumping within ADOT's stormwater system. The discharge points were observed during dry weather. Forms were developed for dry weather field screening; these were used for record keeping purposes. Results of the dry weather screening for this reporting period are included in Appendix C and photos of the inspected outfalls are in Appendix D.

Given the local climatic conditions, the stormwater facilities only exhibit flow immediately following a precipitation event. Dry weather flow is a local phenomenon that is typically linked to tailwater discharge from agricultural irrigation. All agriculture in the region is irrigated, much of it using flood irrigation techniques. Tailwater is often discharged to local storm drain facilities.

In those cases where dry weather discharges are found and an illicit discharge identified, the procedure is to report them to the local municipality. The local municipality is charged with identifying the source of the discharge, determining whether it is an illicit discharge, and following up with the entity that is the source of the discharge. ADOT has no land use authority beyond the roadway right-of-way. The local municipalities, with different enabling legislation, do have zoning and land use authority, along with enforcement authority. A list of ADOT's major outfalls is provided in Appendix E.

During the dry weather screening conducted as a requirement of this annual report, the following ADOT outfalls had at least some flow present:

- Outfall 77-71.74 located on the south bank of Rillito River in Tucson had minimal dry weather discharge. The discharge was investigated and found to be overflow from nearby landscape irrigation.
- Outfall 202-8.28 located along the north bank of the Salt River under the Loop 202 bridge had minimal dry weather discharge. The discharge is from precipitation that occurred within 96 hours of the screening event.

7 ASSESSMENT OF BEST MANAGEMENT PRACTICES

7.1 Enforcement Actions; Inspections; Public Education Programs

7.1.1 Enforcement Actions

ADOT maintains a hazardous materials response unit within the Safety and Health Section trained and equipped to deal with any type of material. It is standard operating procedure for ADOT staff that comes upon any substance or unidentified items on the roadway to first contact TOC who then contacts the Hazmat specialist on duty. Likewise, if there are any spills at the maintenance yards, staff is to call the TOC and not attempt to clean up the spill.

Having a unit with staff and equipment specifically trained to deal with hazardous materials guarantees a high level of expertise will be focused on the hazardous material spill. This results in a higher level of effectiveness in cleaning up the spill in a timely manner with minimal impact to the environment, other people, and the staff themselves.

ADOT's hazardous materials response team is one of three state agencies (DPS, ADEQ) that respond to spills on ADOT roadways involving both known and unknown pollutant generators. Once a call is received by ADOT, staff is sent to the scene of the spill for traffic control and light clean-up activity. In the case of a large spill, the fire department is called for immediate containment of the substance. Following the containment and initial assessment, an emergency response contractor is contacted for final containment and clean-up.

If the source of the spill is known, ADOT pursues recovery of clean-up costs through ADOT's Risk Management and the Arizona Attorney General's Office. If the source of the spill is unknown, funds are allocated through ADOT's Risk Management Department and the Arizona Department of Administration.

7.1.2 Inspections

During the past year, ADOT road maintenance personnel performed inspections of ADOT's stormwater system. These activities occur on an as-needed basis and include the following:

- Storm Sewer System Maintenance
- Control of Illicit Discharges
- Erosion Control Practices
- Roadside Vegetation Management Program

7.1.3 Public Education Programs

A brief discussion of the various public outreach programs that ADOT is involved with are discussed below:

Clean Air Campaign
ADOT is an official sponsor of the Clean Air Campaign. This is the "Don't Drive One in Five" Campaign, which encourages commuters to use an alternative means of transportation one day out of the week. ADOT also provides promotional materials to encourage State employees to reduce travel. This includes telecommuting, flexible work schedules, assisting in carpooling, and providing mass transit information.

Adopt A Highway Program
The AAH Program is another public education program that helps to reduce litter on Arizona's highways. This program allows organizations to adopt designated sections of highways for which they are responsible to remove litter at least three times per year. ADOT erects signs, which indicate which organization sponsors clean-up for that section of highway.

Stormwater Outreach for Regional Municipalities
ADOT is a member of the Stormwater Outreach for Regional Municipalities (STORM), a regional group that was established to help promote stormwater public education efforts within the greater Maricopa County area. The STORM annual report is provided in Appendix F and identifies the specific public outreach and education programs that ADOT has participated.

Pima Association of Governments
ADOT participates in the Stormwater Working Group of the Pima Association of Governments (PAG) for the promotion of public education and outreach within the Tucson area. A summary of stormwater outreach activities conducted by PAG is included in Appendix G.

Northern Arizona MS4
ADOT has been involved with the City of Flagstaff and Northern Arizona University concerning potential stormwater public education and outreach. More recently, ADOT has facilitated the organization of a Northern MS4 Coalition which is comprised of the Cities of

Prescott, Prescott Valley, Sedona, Flagstaff, Camp Verde, Cottonwood and the Counties of Yavapai and Coconino.

Red Mountain Freeway Segment Opening

The Phoenix District Environmental Coordinator prepared and displayed several water quality posters during the public event to open the remaining segment of the Red Mountain Freeway, known as "Rounding Out The Red". The posters included information regarding ADOT activities and best management practices to protect water quality.

8 OFFICE OF ENVIRONMENTAL SERVICES

Todd Williams was appointed by ADOT as Director of OES on March 25, 2006. Mr. Williams is responsible for oversight of all ADOT environmental activities and development of environmental programs and processes needed to ensure compliance with environmental standards, including stormwater. The Director is supported by five groups consisting of: Plans and Permits; Compliance; Water Quality; Environmental Planning; and Natural Resources Management. The OES is also supported by nine District Environmental Coordinators.

9 STATEWIDE PERMIT APPLICATION

ADOT submitted a Statewide Stormwater Management Plan (SSWMP) to ADEQ on February 1, 2005 and a Statewide Stormwater Permit Application on March 1, 2005 in response to a consent order it entered into with the ADEQ. The SSWMP included general information, as well as information concerning non-stormwater discharges, municipal discharges, industrial discharges and construction projects. ADOT received a draft Statewide Stormwater Permit on March 16, 2007 and the final permit was received on August 18, 2008. This final permit became effective on September 19, 2008.

10 STORMWATER ADVISORY TEAMS

ADOT formed Stormwater Advisory Teams (SWATs) to assist in implementing the Statewide Stormwater Management Plan. Eight SWATs were formed from members of ADOT and various consultants. Each SWAT identified 5-year goals for their area of concern and how best to implement and achieve those goals. The information below details some of the progress each SWAT has made over the past year.

10.1 Construction SWAT

This SWAT addressed construction issues specifically related to stormwater. Their accomplishments over the past year are summarized below:

Construction Bulletins:

- Paul Hurst replaced Rick Powers due to his retirement from ADOT.
- The Construction SWAT did not meet in the 3rd and 4th quarters during the past year.

- The Stormwater Management Level II training course that is designed by AEI-CASC Consulting and Logan Simpson Design was put on hold until the ADOT Statewide Stormwater Discharge Permit was finalized.

Job Order Contract:

- Within the past year, a Job Order Contract has not been established.

Publications:

- The Roadway Design Guidelines 2007 Chapter 100, Section 113 (Environmental Regulations) and Chapter 600 (Drainage) were modified from the original 1996 version. The newly updated version is dated January 2007 and is available online.

- The Erosion Quantitative Checklists (quantlists) were updated and changes include splitting administrative checklist into Tribal, Non-tribal and Sensitive versions.

10.2 Design SWAT

This SWAT addressed design issues specifically related to stormwater. Its goals and accomplishments are listed below:

Publications

- A task order was submitted for the Design SWAT and its consultants (AMEC Earth and Environmental) to develop a satisfactory key requirement of our future Stormwater Permit. This manual is intended to serve as a general guidance to roadway designers in understanding when and where post-construction (permanent) BMPs can be implemented. This manual is most applicable/useful during the planning and pre-design (30%) stage of roadway construction projects.
- The Consultant (AMEC) completed and made submittal of several hardcopy and electronic (Microsoft Word) copies of the Post-Construction Best Management Practices Manual.
- ADOT has posted a PDF version of the manual on their stormwater web page.
- The distribution list has been prepared for distribution within ADOT.
- Project work is expected to continue.

10.3 Encroachment Permits SWAT

This SWAT addressed encroachment permit issues specifically related to stormwater. Its goals and accomplishments are listed below:

Publications

- The insurance policy has been issued by the State Engineers Office (SEO), but some clarification is needed for full implementation. The draft permit bulletins are awaiting final approval at the SEO. Also pending approval are policy statements related to access management plan. Development of environmental guidance for encroachment activities is still outstanding in part due to the ADEQ Individual

Stormwater not yet being issued to ADOT. Still to be undertaken is the development of revised or additional language for the rules in the Arizona Administrative Code to allow proper enforcement of our proposed policies.

Database

- The Permits database was successfully launched in the 2nd quarter which will enable Permit Techs and management to track the status of encroachment permits from initial application through completion. Although some bugs were found, training was provided and software experts have worked hard to make the new database user friendly.
- Development of the Stormwater training modules for Permit Techs has not yet resumed pending issuance of the ADOT Statewide Stormwater Discharge Permit.
- A website for permits has been established under each individual district website within ADOT. Future links with associated sites, including an ADOT front-page link, are currently being evaluated for inclusion. The new district permit websites include a link to various permit applications as well as to the new permit manual as a resource for staff and the public.

10.4 Information Management Systems SWAT

This SWAT addressed information management system (IMS) issues specifically related to stormwater. Its goals and accomplishments are listed below:

Reporting

- In the first quarter Jami Rae Garrison, attended Stormwater permits meeting with Phase I representatives (July 18).
- Mary Whelan attended Materials SWAT meeting to help coordinate GIS and database inventory of the ADOT material source pits.
- Updated the material sources pit maps.
- Provided material source pit location (GIS) data to the Materials SWAT.
- Mary Whelan left the Agency effective October 12, 2007. OES has taken over the position, however a replacement has not yet been appointed.
- State hiring freeze is in effect which will delay the filling of the GIS position vacated by Mary Whelan in October 2007.

Software/Programming

- Scott Parkey and Mary Whelan worked with the Environmental Planning Group (EPG) to assist with the updated of files used by the new cultural resources web portal (HPT Portal).
- Obtained PIJ waiver from GITA for OES purchase of Environmental Management Software.

- Provided material source pit location (GIS) data to the Materials SWAT.
- Mary Whelan finished geocoding the 2008-2012 priority Program (5 Year Construciton Program) for use as a map data layer.
- Mary Whelan updated the ADOT and non-ADOT safety rest area database and maps.
- Mary Whelan and Scott Parkey continued to meet monthly (up till October 12, 2007) to coordinate projects between AIDW and GIS.
- Purchased the Optical Character Recognition (OCR) software to complete the importing/indexing of the ITD Drainage Section documents into the Document Repository.
- Completed importing/indexing the ITD Drainage Section documents into the Document Repository with the newly acquired OCR software.

Training

- Scott Parkey provided a demo of the Project Reference system to Susan Hall of FHWA as well as demonstration on July 19, 2007 at the EPG Brown Bag seminar.
- Scott Parkey completed training of OES/EPG personnel on the use of the ITD Project Reference.
- Scott Parkey developed a presentation on the importance of accurate data collection which was given on 10/2/07 to the Natural Resources group in Bullhead City.
- Continued training Intermodal Transportation Department (ITD) personnel on the Project Reference software/process, also trained 25 Federal Highway Administration (FHWA) personnel. Training continued through the first quarter of 2008 for the District offices.

10.5 Maintenance SWAT

This SWAT addressed maintenance issues specifically related to stormwater issues. Its goals and accomplishments are listed below:

Publications

- The *Maintenance and Facilities Best Management Practices Manual* is continuing in its trial phase and no comments on the manual have been received to date.

Maintenance Yards

- After the successful completion of the pilot class on Environmental Awareness in the Globe District, all other districts are taking an active role in providing the training to their maintenance employees. The table below summarizes the training that is taking place at the district level to equip our employees with the required knowledge and skills on environmental issues when performing their day-to-day maintenance activities.

Summary of District Training Activities

District	Completed/Scheduled Classes, Location	Number of Employees Enrolled
Prescott	July 8-9, 2008	21
Kingman	June 23-24, 2008	18
Holbrook	One in July 2008 and one in August	20
Tucson	June 11-12, 2008 Traffic Operations	UNK
	June 17-18, 2008 Org 8151	UNK
	June 19-20, 2008 Org 8150	UNK
	June 24-25, 2008 Oracle Maintenance	UNK
	June 26-27, 2008 Casa Grande Maintenance	UNK
Flagstaff	June 24-25, 2008 Flagstaff	UNK
	One will be scheduled in July 2008	10 to 20

10.6 MS4 SWAT

SWPPPs

- The Avondale Maintenance Yard SWPPP was finalized in the fourth quarter.
- In the fourth quarter the Pollution Prevention Team for Prescott Valley Maintenance Yard SWPPP was updated.

10.7 Materials SWAT

This SWAT addressed material sites specifically related to stormwater. Its goals and accomplishments are listed below:

SWPPP Inventory

The SWPPP Inventory of Groups A, B, and C sites as well as an explanation of the changes made and a revised/updated location maps The Materials SWAT will continue to provide the OES with an updated SWPPP Inventory and location map on a quarterly basis, or as required.

Site Inventory

The Materials SWAT continues to meet on the first Thursday of each month. A Group Environmental Coordinator (GEC) is now on staff to assist in preparing quarterly reports, oversee inspections of active sites, continue to identify issues with community use sources, and facilitate compliance between ADOT departments and contractors using department sources.

10.8 Public Education and Outreach SWAT

This SWAT addressed public education and outreach issues specifically related to stormwater. Its goals and accomplishments are listed below:

Stormwater Outreach for Regional Municipalities (STORM) – Maricopa County

During the first quarter The Annual Report was completed. Throughout the four quarters Communication and Community Partnership (CCP) and OES continued to represent ADOT at STORM meetings. STORM has consistently purchased various collateral items for giveaways to provide awareness.

Stormwater Management Working Group (SWMWG) – Pima Association of Governments

CCP, OES, and the Tucson Engineering District continued to represent ADOT at SWMWG meetings this reporting period. A construction seminar was given May 20, 2008 to address stormwater pollution BMPs to the construction and developer industries. Nearly 150 people registered for the event and about 105 attended. ADOT provided DVDs of:

- New Construction General Permit (CGP)
- New CGP Fact Sheet
- New Notice of Intent (NOI)
- New Notice of Termination
- Construction Permit Waiver Certification
- Erosion Control Manual,
- Post-Construction BMP Manual
- Construction Stormwater Sampling Manual (not updated to new CGP)

The DVD was included in each registrant packet.

Northern Arizona MS4s

The ADOT Flagstaff District Environmental Coordinator invited Northern Arizona MS4s for an initial meeting in August 2007. In attendance were: City of Flagstaff, Coconino County, Yavapai County, City of Camp Verde, City of Prescott, City of Prescott Valley, Northern Arizona University, City of Cottonwood, and City of Sedona. The group continues to meet on a regular basis to deal with stormwater and the interaction of the municipalities.

Adopt a Highway

- For FY 2008, an estimated 2,135 groups (~10,925 volunteers), are expected to volunteer on more than 2700 miles of state highway. The number of volunteer groups has increased 25% since FY 2005.
- AAH volunteer groups account for 2,777 miles, nearly 1/3 of available volunteer miles.
- There are 118 AAH sponsors. Maintenance providers pick up between 5-6,000 bags of trash each month in the Phoenix, Flagstaff, Tucson, and Prescott metro areas.

AZ Cooperative Extension Outreach

ADOT continues to explore partnership with the Cooperative Extension through WET (Water Education for Teachers). Working through the Cooperative Extension through WET and/or the Master Watershed Stewardship program will help ADOT establish outreach to MS4s outside of Phoenix, Tucson, and Flagstaff.

Arizona Clean & Beautiful

ADOT continues its active participation and partnership with Arizona Clean & Beautiful (ACB).

Anti-Litter Campaign

Don't Trash Arizona!"

"Don't Trash AZ!" is hosting a social media contest via YouTube for University of Arizona students. There will be a campus-wide competition, asking students to create their own videos on how to keep their campus clean. Students will be able to upload and submit their completed

videos and watch all of their peer's submissions. Submissions can be made now through the fall, with winners announced in October. This project is being led by ACB, with the Governor's office and ADOT as active, working partners in this effort.

MAG and ADOT partnered with Westcor Shopping Centers to feature "Don't Trash AZ!" in an outreach event March 29. Anti-litter messages in the restrooms of sporting venues such as Chase Field and ASU were posted as well.

Miscellaneous

The Environmental Coordinator in the Yuma Engineering District continues to publish a monthly one page newsletter, "Environmental Tip-of-the-Month" for the District's maintenance employees.

The Statewide Adopt a Highway Coordinator made appearances providing information about the program and other litter abatement messages at the Navajo Nation Ojato Chapter's Reduce-Reuse-Recycle Fair in Monument Valley, April 10, 2008 and to the Wild West Cruisers at their meeting in Glendale, May 3, 2008.

The Statewide Adopt a Highway Coordinator also provided promotional items for Earth Day activities at the Phoenix Zoo to the booth manned by STORM.

10.9 Training SWAT

This SWAT addressed training issues specifically related to stormwater. Its goals and accomplishments are listed below:

Overall management of the Stormwater Training program.

- Development of the Stormwater training program continues to be placed on a temporary moratorium for development of training materials.
- No Instructor Lead (IL) Introduction to Stormwater Management courses were delivered.

Introduction to Stormwater Awareness Course, 2 hour Course

Nine courses were delivered to 252 ADOT employees in 2007-2008, nine classes of which were between August and November 2007, training 133 employees. In 2008, five courses were held, training 119 participants. In total (2007 and 2008), 9 Courses to 252 ADOT employees have been delivered.

Stormwater Training Library

Development of the Stormwater training program continues to be placed on a temporary moratorium for development of any of the training materials.

11 PROPOSED CHANGES TO THE SWMP

There are no proposed changes to ADOT's SWMP. ADOT's SWMP will no longer be applicable under the new AZPDES Permit. Changes will occur to the Statewide Stormwater Management Plan (SSWMP) to bring it into compliance with the new stormwater discharge permit requirements.

12 ASSESSMENT OF WATER QUALITY IMPROVEMENT OR DEGRADATION

ADOT has adopted many BMPs that are effective in maintaining acceptable water quality. This includes removal of significant amounts of debris from roadways, street sweeping, implementation of measures to ensure its contractors maintain compliance with AZPDES, dry weather screening, personnel training, periodic inspection and cleaning of its storm sewers and drains, and incorporating "first flush" storage capacity in some of its new detention basins. Additionally, monitoring of stormwater and dry weather flows has not identified pollutants above Arizona Surface Water Quality Standards. ADOT's implementation of these BMPs has been a factor in improving water quality and no degradation to surface water quality has been identified.

13 ANNUAL EXPENDITURES

13.1 Fiscal Resources

ADOT does not have a specific fund dedicated solely for its stormwater programs. There are, however, several sources available for funding of this program, which include: the Arizona Department of Transportation Five-Year Construction Program, the Highway Maintenance Program, and the Administrative Budget.

13.2 Five-Year Construction Program

ADOT's Five-Year Construction Program is a source of funding that will be used when a stormwater issue or concern is related to a construction project that is in the existing program. The Program is reviewed on an annual basis, and at that time, new projects are added and modifications to existing projects are made. There are several sources of funds that are identified to fund the Program. These include federal, state, local, and private sources. The approval process required for incorporation of the stormwater issues into the program is the identification of the project and funding requirements and submittal to the Priority Planning Committee, and then in turn, to the Transportation Board for final approval. The program is adopted July 1st of each year.

13.3 Highway Maintenance Program

Stormwater issues related to maintenance will be covered under the Highway Maintenance Program, which is funded by the state. Issues and costs are identified and submitted for approval to the legislature in August of each year. Funds for new issues are received on July 1st of the following year. Currently, there is a total of approximately $126,044,400 in this program.

13.4 Administrative Budget

An additional source of funding for ADOT stormwater programs is the Administrative Budget, which again, is state-funded and appropriated by the Arizona Legislature. The process is identical to the Highway Maintenance Program. As part of the Administrative

Budget, ADOT receives a total of approximately $73,397,000 in state funds for administrative purposes.

13.5 Office of Environmental Services Budget

The OES was formed in 2006 and its budget has not been established. Currently, the OES operates under several budget accounts. Table 13-5 below provides the actual and estimated expenditures for implemented activities covered by the Phase I, MS4 Permit AZS000018 program requirements.

Table 13-5. ADOT's ESTIMATED STORMWATER MANAGEMENT PROGRAM COMPREHENSIVE ANNUAL BUDGET

PROGRAM/ACTIVITY	FY 2006/2007 Actual	FY 2007/2008 Estimated
Street Sweeping – Phoenix and Tucson Area	$2,496,305.59	$2,869,049.80
Litter Pick-up and Removal – Phoenix and Tucson Area	$4,101,386.23	$4,213,495.88
Preparation and Implementation of Statewide Permit	$190,000.00	$250,000.00
Implement/ Update of SWPPPs for ADOT yards	$15,000	$78,000
Maintain and Update Stormwater Outfall Map to ADOT's GIS	$15,000.00	$78,000.00
Dry Weather Sampling – 20% of Outfalls (includes training)	$6,000.00	$6,400.00
Stormwater Monitoring	$8,000.00	$29,000.00
Preparation of Annual Report	$16,969.00	$17,500.00
ANNUAL TOTALS	**6,848,660.82**	**7,541,445.68**

APPENDIX A: AZPDES Permit # AZS000018

Permit No. AZS000018

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et. seq.; the "Act"),

Arizona Department of Transportation
206 South 17th Avenue
Phoenix, AZ 85007-3213

is authorized to discharge storm water runoff from the municipal separate storm sewer system (MS4) operated by the permittee in the Phoenix and Tucson metropolitan areas to waters of the United States from all outfalls within the MS4 operated by the permittee in accordance with effluent limitations, monitoring requirements and other conditions set forth in Part I, Part II (EPA Region IX Standard Federal NPDES Permit Conditions for MS4 Discharges Dated May 24, 1996), and Appendix 1 of this permit.

This permit shall become effective on SEP 30 1999

This permit and the authorization to discharge shall expire at midnight, August 31, 2002.

Signed this 30th day of September 1999

For the Regional Administrator

for Alexis Strauss
Director, Water Division

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge storm water runoff from all outfalls of the permittee's MS4 as defined in Part E.5 of this permit.

2. Storm Water Management Program

The permittee shall control pollutants in storm water discharges to the maximum extent practicable, and to demonstrate compliance with this requirement, the permittee shall implement in its entirety the proposed storm water management program (SWMP) described in the documents listed in Part I.E.12 of this permit. All storm water pollution control measures identified in the SWMP shall be implemented as follows:

a. For the existing MS4 on the effective date of this permit, the requirements of the SWMP shall be implemented no later than the effective date of this permit.

b. For additional roadways added to the MS4 in the future, control measures during the construction phase shall be implemented as described in the SWMP. Post-construction control measures described in the SWMP shall be implemented as soon as practicable for the newly added roadways, but not later than 3 months after construction is complete.

The permittee shall also implement the additional control measures related to the SWMP set forth in Appendix 1 to this permit in the time frame set forth in Appendix 1.

3. Storm Water Monitoring Program

The permittee shall implement the storm water monitoring requirements described in Appendix 1 of this permit, in the time frame set forth in Appendix 1.

4. Compliance with Arizona Water Quality Standards

To ensure that the permittee's activities achieve timely compliance with applicable water quality standards (Arizona Administrative Code, Title 18, Chapter 11,

Article 1), the permittee shall implement the SWMP, monitoring, reporting and other requirements of this permit in accordance with the time frames established in the SWMP referenced in Part I.A.2, and elsewhere in this permit. The timely implementation of the requirements of this permit shall constitute a schedule of compliance authorized by Arizona Administrative Code, section R18-11-121(C).

B. LEGAL AUTHORITY REQUIREMENTS

As part of the reapplication for this permit, the permittee shall submit to Region 9 an evaluation of the adequacy of the permittee's existing legal authority in implementing the requirements of this permit. This analysis shall be based on the permittee's experiences in implementing the requirements of this permit during the term of this permit.

C. ANNUAL REPORT

The permittee shall submit an annual report summarizing the storm water program activities of the previous year including, at a minimum, the following items:

1. The status of implementing the components of the storm water management program required by the permit; at a minimum, the report must include a description of the status of each program element listed in Table 1 of the fact sheet accompanying the permit (except item A.5), and the activities of the permittee during the previous year.

2. An assessment of the effectiveness of the best management practices described in the storm water management program and monitoring program in limiting the discharge of pollutants. The assessment must, at a minimum, include:

   a. A summary describing the number and nature of enforcement actions, inspections, and public education programs;

   b. A summary of the data, including monitoring data, that is accumulated throughout the reporting year; and

   c. An assessment of water quality improvement or degradation.

3. The report shall also identify data limitations and proposed changes to the storm water management program that are established as permit conditions along with a specific timetable for implementation.

4. A certification shall be included that storm water management program revisions previously approved by EPA, after consultation with ADEQ, were implemented on schedule.

5. Annual expenditures for the year covered by the report, and proposed budget and annual expenditures for the next reporting period.

The first annual report is due September 30, 2000, covering fiscal year ending June 30, 2000. Subsequent reports are due on September 30 of each year thereafter, covering the previous fiscal year.

D. ENDANGERED SPECIES ACT REQUIREMENTS

This permit does not authorize nor require the construction of any particular structural storm water quality control device that could adversely affect listed or proposed threatened or endangered species.

E. DEFINITIONS

1. Best Management Practices (BMPs) refer to schedules of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

2. "CWA" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 95-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.

3. "Director" means the Regional Administrator of EPA, Region 9.

4. "Illicit Discharge" means any discharge to a municipal separate storm sewer system that is not composed entirely of storm water except discharges pursuant to an NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges from fire fighting activities.

5. "Major Outfall" means a municipal separate storm sewer outfall from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more, or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

6. "Municipal Separate Storm Sewer" means a conveyance, or system of conveyances (including roads with drainage systems, municipal streams, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):
(i) owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

(ii) designed or used for collecting of conveying storm water;
(iii) which is not a combined sewer; and
(iv) which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

For purposes of this permit, the MS4 consists of the highway runoff conveyance system within the metropolitan areas of Phoenix and Tucson including the specific roadways identified in section 1 of the document entitled "National Pollutant Discharge Elimination System (NPDES) Part 2 Permit Application for Phoenix and Tucson Metropolitan Areas", Arizona Department of Transportation, November, 1992. The MS4 also includes all ADOT roadways existing on the effective date of this permit which were not identified in the above document but which meet the selection criteria described in the Part 2 permit application. In addition, future ADOT roadways shall be added to the MS4 in accordance with the same selection criteria.

7. "Outfall" means a point source where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

8. "Permittee" means the Arizona Department of Transportation (ADOT).

9. "Point Source" means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged.

10. "Representative Storm" means a storm event of greater than 0.1" of rainfall and at least 72 hours after the previously measurable (greater than 0.1" rainfall) storm event. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed 50 percent from the average or median rainfall event in the area.

11. "Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

12. The "storm water management program" (SWMP) consists of the following documents:

i. SWMP described in section 5 of the document entitled "National Pollutant Discharge Elimination System (NPDES) Part 2 Permit Application for Phoenix and Tucson Metropolitan Areas", Arizona Department of Transportation, November, 1992; and
ii. Description of Construction Site Runoff Pollution Control Program found in the document entitled "ADOT Erosion and Pollution Control for Highway Design and Construction", Arizona Department of Transportation, June, 1995.

13. "Waters of the United States means":

(a) all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
(b) all interstate waters, including interstate "wetlands";
(c) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
(1) which are or could be used by interstate or foreign travelers for recreational or other purposes;
(2) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
(3) which are used or could be used for industrial purposes by industries in interstate commerce;
(d) all impoundments of waters otherwise defined as waters of the United States under this definition;
(e) tributaries of waters identified in paragraphs (a) through (d) of this definition;
(f) the territory sea; and
(g) wetlands adjacent to areas (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to man-made bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States.

REGION IX STANDARD FEDERAL NPDES PERMIT CONDITIONS
(Revised for Municipal Storm Water Permits, May 24, 1996)

1. Duty to Reapply [40 CFR 122.21(d)]

The permittee shall submit a new application 180 days before the existing permit expires.

2. Applications [40 CFR 122.22]

a. All permit applications shall be signed as follows:

(1) For a corporation. by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

(ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes; (I) The chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

b. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative or representatives of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this Section;

(2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either named individual or any individual occupying a named position.); and

(3) The written authorization is submitted to the Director.

c. Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or a portion of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

3. Duty to Comply [40 CFR 122.41(a)]

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

(1) The authorization is made in writing by a person described in paragraph (a) of this Section;

(2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either named individual or any individual occupying a named position.); and

(3) The written authorization is submitted to the Director.

c. Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or a portion of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

3. Duty to Comply [40 CFR 122.41(a)]

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

b. The Clean Water Act provides that:

(1) Any person who causes a violation of any condition in this permit is subject to a civil penalty not to exceed $25,000 per day of each violation. Any person who negligently causes a violation of any condition in this permit is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both for a first conviction. For a second conviction, such a person is subject to a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two years, or both. [Updated pursuant to the Water Quality Act of 1987]

(2) Any person who knowingly causes violation of any condition of this permit is subject to fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than three years, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than $100,000 per day of violation, or by imprisonment of not more than six years, or both. [Updated pursuant to the Water Quality Act of 1987]

(3) Any person who knowingly causes a violation of any condition of this permit and, by so doing, knows at that time that he thereby places another in imminent danger of death or serious bodily injury shall be subject to a fine or not more than $250,000, or imprisonment of not more than 15 years, or both. A person who is an organization and violates this provision shall be subject to a fine or not more than $1,000,000 for a first conviction. For a second conviction under this provision, the maximum fine and imprisonment shall be doubled. [Updated pursuant to the Water Quality Act of 1987]

c. By regulation, EPA has increased the statutory maximum penalty amounts referred to above (see 40 CFR Part 19).

4. Duty to Mitigate [40 CFR 122.41(d)]

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Proper Operation and Maintenance [40 CFR 122.41(e)]

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

6. Permit Actions [40 CFR 122.41(f)]

The permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. Property Rights [40 CFR 122.41 (g)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

8. Duty to Provide Information [40 CFR 122.41(h)]

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

9. Inspection and Entry [40 CFR 122.41(i)]

The permittee shall allow the Director, or an authorized representative, upon the presentation of credential and other documents as may be required by law, to:

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

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

10. Monitoring and Records [40 CFR 122.41(j)]

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

c. Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;

(2) The individual(s) who performed the sampling or measurements;

(3) The date(s) analyses were performed;

(4) The individual(s) who performed the analyses;

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

d. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless test procedures have been specified in this permit.

e. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than $20,000 per day of violation, or imprisonment for not more than four years, or both. [Updated pursuant to the Water Quality Act of 1987]

11. Signatory requirement [40 CFR 122.41(k)]

a. All applications, reports or information submitted to the Director shall be signed and certified. (See 40 CFR 122.22)

b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record other document submitted or required to be maintained under this permit, including monitoring reports of compliance or non-compliance shall, upon conviction, be punished by a fine or not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to fine of not more than $20,000 per day of violation, or imprisonment of not more than four years, or both. [Updated pursuant to the Water Quality Act of 1987]

12. Reporting requirements [40 CFR 122.41(l)]

a. Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with the permit requirements.

b. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring.

(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

c. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

d. Twenty-four hour reporting.

(1) The permittee shall report any noncompliance which may endanger public health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned in order to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(2) The following shall be included as information which must be reported within 24 hours under this paragraph.

(i) Any unanticipated bypass which exceeds any effluent limitation in the permit. [See 40 CFR 122.41(g).]

(ii) Any upset which exceeds any effluent limitation in the permit.

(iii) Violation of a maximum daily discharge limitation for any of the

pollutants listed by the Director in the permit to be reported within 24 hours. [See 40 CFR 122.44(g).]

e. Other noncompliance. The permittee shall report all instances of noncompliance not reported under the above paragraphs (i), (ii), and (iii) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed paragraph (iii) of this section.

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

13. Bypass [40 CFR 122.41(m)]

a. Definitions

(1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. However, diversions of storm water which are consistent with the normal operation of the municipal storm sewer system shall not be considered bypasses.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Sever property damage does not mean economic loss caused by delays in production.

b. Bypass not Exceeding Limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

c. Notice.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, of possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (d) of section (12) (24-hour notice).

d. Prohibition of bypass.

(1) Bypasses are prohibited, and the Director may take enforcement action against a permittee for a bypass, unless:

(i) A bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and

(iii) The permittee submitted notices as required under paragraph c of this section.

(2) The Director may approve an anticipated bypass, after considering its adverse effects, if the director determines it will meet the three conditions listed above in paragraph (d) of this section.

14. Upset [40 CFR 122.41(n)]

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirement of paragraph c of this section are met. No determination made during administrative review of claims that noncompliance, is final administrative

action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required in paragraph 12(d) (24-hour notice).

(4) The permittee complied with any remedial measures required under 40 CFR 122.41(d).

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

15. Termination of permits [40 CFR 122.64]

The following are causes for terminating a permit during its term, or for denying a permit renewal application:

a. Noncompliance by the permittee with any condition of the permit;

b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;

c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or

d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit (for example, plant closure or termination of discharge by connection to a POTW).

16. Availability of Reports [Pursuant to Clean Water Act Section 308]

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Regional Administrator. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

17. Removed Substances [Pursuant to Clean Water Act Section 301]

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

18. Severability [Pursuant to Clean Water Act Section 512]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and remainder of the permit, shall not be affected thereby.

19. Civil and Criminal Liability [Pursuant to Clean Water Act Section 309]

Except as provided in permit conditions on "Bypass" (Section 14) and "Upset" (Section 15), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

20. Oil and Hazardous Substance Liability [Pursuant to Clean Water Act Section 311]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

21. State or Tribal Law [Pursuant to Clean Water Act Section 510]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by Section 510 of the Clean Water Act.

A. Storm Water Pollution Control on ADOT Maintenance Yards

Within 6 months of the effective date of this permit, the permittee shall develop and implement a storm water pollution prevention plan at each of its maintenance yards within the area covered by this permit. At a minimum, the plans shall address potential pollutants from activities including vehicle and equipment cleaning, repair and storage; vehicle fueling; and bulk storage of sand, other construction materials, pesticides and herbicides, and litter and debris generated from road maintenance.

B. Additional Field Screening Activities for Illicit Discharges

The permittee shall implement an ongoing program to re-evaluate major outfalls for illicit discharges. At a minimum, this program shall include rescreening of 60% of the major outfalls once during the three year term of this permit. Not fewer than twenty percent of the outfalls shall be screened in each year. The screening procedure shall be as set forth at 40 CFR 122.26(d)(1)(iv)(D).

The permittee shall prohibit non-storm water discharges into the MS4. To comply with this requirement, the permittee shall implement the above field screening program and shall eliminate illicit discharges which are located. NPDES permitted discharges are exempt from this prohibition. In addition, the following discharges need only be prohibited when the permittee determines that the discharges are a source of pollutants:

water line flushing
landscape irrigation
diverted stream flows
rising ground waters
uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers
uncontaminated pumped ground water
discharges from potable water sources
foundation drains
air conditioning condensate
irrigation water
springs
water from crawl space pumps
footing drains
lawn watering
individual residential car washing
flows from riparian habitats and wetlands
dechlorinated swimming pool discharges
street wash water

Discharges from fire fighting activity shall be prohibited only when the discharges are identified as significant sources of pollutants to waters of the United States.

C. Storm Water Pollution Control Education for Contractors

The permittee shall invite its construction site contractors to participate in the permittee's training program pertaining to storm water pollution control at construction sites.

D. Storm Water Monitoring Program

Not later than 1 year after the effective date of this permit, the permittee shall submit to Region 9 a proposed highway storm water monitoring program for the remainder of the term of the permit. At a minimum, the proposal shall include monitoring of one representative site in both the Phoenix and Tucson metropolitan areas. The proposal shall provide for monitoring of constituents judged appropriate by the permittee for highway runoff and shall include DDE among the constituents to be monitored. Upon receipt of the proposal by Region 9, this permit shall be reopened and modified to include the proposal, or a modification of the proposal as necessary to comply with applicable requirements of the Clean Water Act.

E. Structural Storm Water Controls for New Highway Development/Redevelopment

As part of the permittee's design program for long-term storm water pollution control for new highway development and redevelopment, the permittee shall consider other structural controls such as grassy swales or filter strips, media filtration and oil/water separators in addition to detention and retention basins.

F. Debris Removal from Drainage System

The permittee shall remove debris and other accumulated material from storm sewer inlets, catch basins, pump stations, tunnels and open channels when the permittee's inspections indicate that the accumulated material could pose a significant threat to downstream water quality. For catch basins, accumulated material shall be removed on a regular basis and in no case shall 50% of the capacity of the basins be reached.

APPENDIX B: Stormwater Monitoring Summary Results

Sample Results July 17, 2007

Constituent		Sampling Location and Result (mg/L)			Benchmark mg/L
		Basin 1	Basin 2	Salt River	
Conventional	Total Dissolved Solids (TDS)	--	1300	--	--
	Total Suspended Solids (TSS)	--	50	--	<100
	Turbidity	--	1.4	--	--
	Specific Conductance	--	2200	--	<200 umos/cm
	Hardness	--	370	--	--
	BOD	--	<5.0	--	<30
	COD	--	110	--	<120
	Color	--	150	--	--
	pH	--	6.78	--	6.0 – 9.0
	Temperature	--	100.7	--	--
Nutrients	Nitrite	--	<0.10	--	--
	Nitrate	--	0.18	--	--
	Ammonia Nitrogen	--	4.5	--	--
	Total Kjeldahl Nitrogen (TKN)	--	6.4	--	--
Metals, Total	Cadmium (Cd)	--	<0.0050	--	--
	Chromium (Cr)	--	<0.010	--	<0.0159
	Copper (Cu)	--	<0.020	--	--
	Lead (Pb)	--	<0.0050	--	<0.0636
	Zinc (Zn)	--	0.085	--	<0.0816
	Phosphorus, Total	--	0.55	--	<0.117
Metals, Dissolved	Dissolved Cadmium (Cd)	--	<0.0050	--	--
	Dissolved Chromium (Cr)	--	<0.010	--	--
	Dissolved Copper (Cu)	--	0.020	--	--
	Dissolved Lead (Pd)	--	<0.0050	--	--
	Dissolved Zinc (Zn)	--	0.049	--	--
Other	4,4 – DDE (pesticide)	--	<0.00050	--	--
	Total Petroleum Hydrocarbon	--	0.44	--	--
	Total Phenol	--	<0.040	--	--
	Surfactants (detergents)	--	<0.10	--	--

-- indicates inadequate volume of water to complete analyses
NNS = no numerical standard

Sample Results July 24, 2007

Constituent		Sampling Location and Result (mg/L)			Benchmark mg/L
		Basin 1	Basin 2	Salt River	
Conventional	Total Dissolved Solids (TDS)	--	--	680	--
	Total Suspended Solids (TSS)	--	--	1100	<100
	Turbidity	--	--	540	--
	Specific Conductance	--	--	970	<200 umos/cm
	Hardness	--	--	490	--
	BOD	--	--	13	<30
	COD	--	--	130	<120
	Color	--	--	180	--
	pH	--	--	6.86	6.0 – 9.0
	Temperature	--	--	84.5	--
Nutrients	Nitrite	--	--	<0.10	--
	Nitrate	--	--	<0.14	--
	Ammonia Nitrogen	--	--	1.8	--
	Total Kjeldahl Nitrogen (TKN)	--	--	3.8	--
Metals, Total	Cadmium (Cd)	--	--	<0.0050	--
	Chromium (Cr)	--	--	<0.010	<0.0159
	Copper (Cu)	--	--	<0.020	--
	Lead (Pb)	--	--	**0.017**	<0.0636
	Zinc (Zn)	--	--	0.7	<0.0816
	Phosphorus, Total	--	--	0.7	<0.117
Metals, Dissolved	Dissolved Cadmium (Cd)	--	--	<0.0050	--
	Dissolved Chromium (Cr)	--	--	0.031	--
	Dissolved Copper (Cu)	--	--	<0.020	--
	Dissolved Lead (Pd)	--	--	<0.0050	--
	Dissolved Zinc (Zn)	--	--	0.098	--
Other	4,4 – DDE (pesticide)	--	--	<0.00050	--
	Total Petroleum Hydrocarbon	--	--	1.8	--
	Total Phenol	--	--	<0.040	--
	Surfactants (detergents)	--	--	<0.1	--
					--
					<100

-- indicates inadequate volume of water to complete analyses
NNS = no numerical standard

Sample Results July 26, 2007

Constituent		Sampling Location and Result (mg/L)			Benchmark mg/L
		Basin 1	Basin 2	Salt River	
Conventional	Total Dissolved Solids (TDS)	--	400	260	--
	Total Suspended Solids (TSS)	--	3100	2900	<100
	Turbidity	--	3200	1400	--
	Specific Conductance	--	570	360	<200 umos/cm
	Hardness	--	1000	460	--
	BOD	--	53	16	<30
	COD	--	220	130	<120
	Color	--	150	120	--
	pH	--	7.03	7.39	6.0 – 9.0
	Temperature	--	87	81.9	--
Nutrients	Nitrite	--	<0.10	<0.10	--
	Nitrate	--	<0.10	<0.10	--
	Ammonia Nitrogen	--	2.9	0.29	--
	Total Kjeldahl Nitrogen (TKN)	--	8.9	7	--
Metals, Total	Cadmium (Cd)	--	0.0083	<0.0050	--
	Chromium (Cr)	--	**0.26**	0.09	<0.0159
	Copper (Cu)	--	0.38	0.18	--
	Lead (Pb)	--	**0.18**	**0.098**	<0.0636
	Zinc (Zn)	--	1.1	0.92	<0.0816
	Phosphorus, Total	--	2.7	4.5	<0.117
Metals, Dissolved	Dissolved Cadmium (Cd)	--	<0.0050	<0.0050	--
	Dissolved Chromium (Cr)	--	<0.010	<0.010	--
	Dissolved Copper (Cu)	--	**0.038**	**0.026**	--
	Dissolved Lead (Pd)	--	<0.0050	0.0062	--
	Dissolved Zinc (Zn)	--	<0.030	<0.030	--
Other	4,4 – DDE (pesticide)	--	<0.0050	<0.0050	--
	Total Petroleum Hydrocarbon	--	0.98	1.6	--
	Total Phenol	--	0.054	<0.040	--
	Surfactants (detergents)	--	<0.50	<0.10	--

-- indicates inadequate volume of water to complete analyses
NNS = no numerical standard

Sample Results December 4, 2007

Constituent		Sampling Location and Result (mg/L)			Benchmark mg/L
		Basin 1	Basin 2	Salt River	
Conventional	Total Dissolved Solids (TDS)	--	--	320	--
	Total Suspended Solids (TSS)	--	--	1800	<100
	Turbidity	--	--	2000	--
	Specific Conductance	--	--	480	<200 umos/cm
	Hardness	--	--	2200	--
	BOD	--	--	<5.0	<30
	COD	--	--	46	<120
	Color	--	--	50	--
	pH	--	--	7.3	6.0 – 9.0
	Temperature	--	--	62.4	--
Nutrients	Nitrite	--	--	<0.1	--
	Nitrate	--	--	0.55	--
	Ammonia Nitrogen	--	--	0.22	--
	Total Kjeldahl Nitrogen (TKN)	--	--	4.4	--
Metals, Total	Cadmium (Cd)	--	--	0.0062	--
	Chromium (Cr)	--	--	<0.010	<0.0159
	Copper (Cu)	--	--	0.78	--
	Lead (Pb)	--	--	0.10	<0.0636
	Zinc (Zn)	--	--	1.5	<0.0816
	Phosphorus, Total	--	--	4.3	<0.117
Metals, Dissolved	Dissolved Cadmium (Cd)	--	--	<0.0050	--
	Dissolved Chromium (Cr)	--	--	<0.010	--
	Dissolved Copper (Cu)	--	--	<0.020	--
	Dissolved Lead (Pd)	--	--	<0.0050	--
	Dissolved Zinc (Zn)	--	--	<0.030	--
Other	4,4 – DDE (pesticide)	--	--	--	--
	Total Petroleum Hydrocarbon	--	--	--	--
	Total Phenol	--	--	<0.040	--
	Surfactants (detergents)	--	--	<0.50	--

-- indicates inadequate volume of water to complete analyses
NNS = no numerical standard

Appendix C: Dry Weather Screening Forms

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: Open Channel outfall - Skunk Creek

Outfall Location Code: 101-13.44 (see manual, pp FCD-1-5) **L.U.Type** mixed (see reverse)

Receiving Water: Skunk Creek (water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: Exit thunderbird west, North on 88th Ave to park. (nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): none (normal) excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit	**2nd Visit** (>4 hours and <24 hours later)
Date/Time: 7:10 pm 8/15/08	Date/Time: _____
Precipitation <96 hours? (Yes) / No	Precipitation <96 hours? Yes / No
Flow? Yes ~~No~~	Flow? Yes / No

pH: : _____ su	Color: # _____	pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm	Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N	Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N	Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F	Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F	Turbility: _____ NTU	Water Temp: _____ °F
Attach copy of Chain of Custody Record (see manual for example form)		Attach copy of Chain of Custody Record (see manual for example form)	

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: (none) sediments oily other

Odor: ~~none~~ musty sewage rotten eggs solvent chlorine other

Biological: ~~none~~ fish algae other

Signature: _____

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

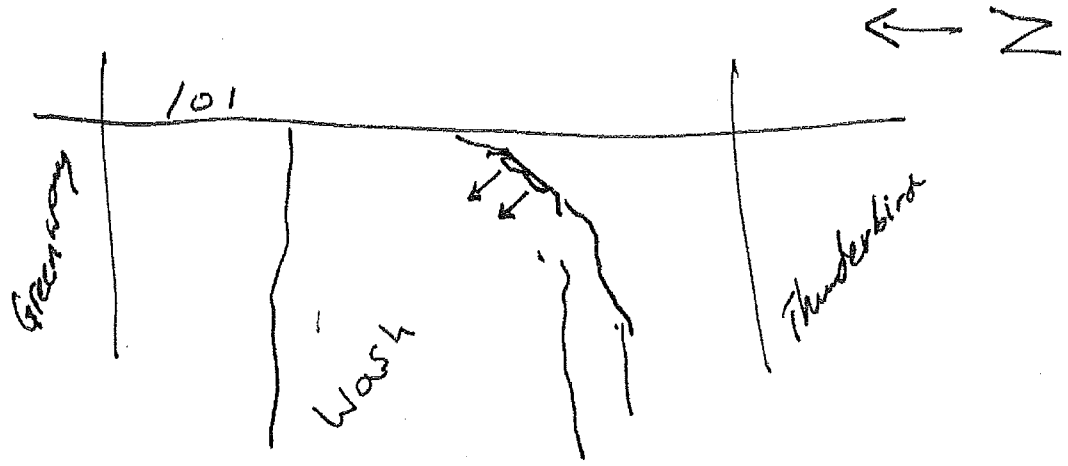
Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

~~Signature:~~ _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container: Volume:_____(gal) Time: _____(sec)	A. Free Fall into container: Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)	B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)



Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :

Photo 01

Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: Cave Creek run-off

Outfall Location Code: 101-25.52 (see manual, pp FCD-1-5) **L.U.Type** mixed (see reverse)

Receiving Water: Cave Creek (water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: W. of 7th St & S. of 101 (North end of 3rd St.) (nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): (none) normal excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit	**2nd Visit** (>4 hours and <24 hours later)
Date/Time: 11:10am / 8/28/08	Date/Time: _____
Precipitation <96 hours? (Yes) / No	Precipitation <96 hours? Yes / No
Flow? Yes / (No)	Flow? Yes / No

pH: : _____ su	Color: # _____	pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm	Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N	Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N	Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F	Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F	Turbility: _____ NTU	Water Temp: _____ °F
Attach copy of Chain of Custody Record (see manual for example form)		Attach copy of Chain of Custody Record (see manual for example form)	

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: (none) sediments oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: (none) fish algae other

Signature: [signature]

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

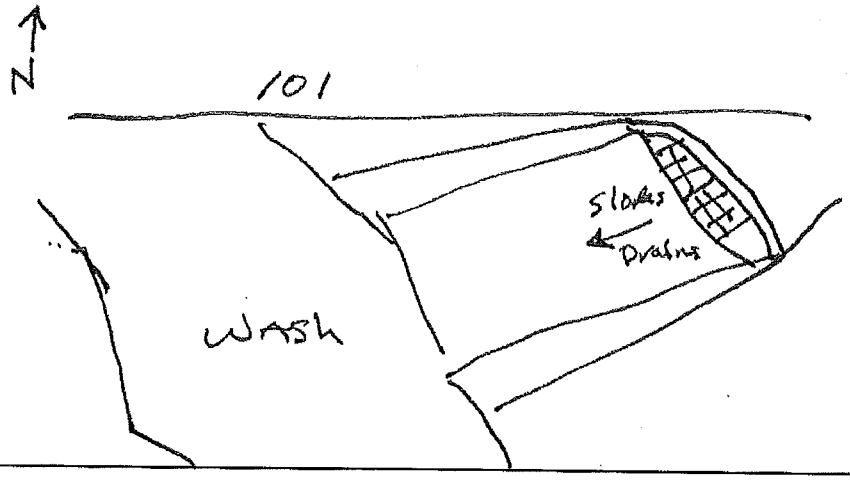
Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

Signature: _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container: Volume:_____(gal) Time:_____(sec)	A. Free Fall into container: Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)	B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)



Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :

Photo D 2

Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: Open Channel outfall - East Bank of the New River

Outfall Location Code: 101-6.05 (see manual, pp FCD-1-5) **L.U.Type** mixed (see reverse)

Receiving Water: East Bank of the New River (water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: NW of 107th Ave & Bethany Home. (Exit Camelback West to 107th Ave) (nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): none ~~normal~~ excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit	**2nd Visit** (>4 hours and <24 hours later)
Date/Time: 6:10 pm 8/28/08	Date/Time: _____
Precipitation <96 hours? (Yes) / No	Precipitation <96 hours? Yes / No
Flow? Yes / ~~No~~	Flow? Yes / No

pH: : _____ su	Color: # _____	pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm	Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	~~Oil sheen~~: Y / N	Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N	Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F	Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F	Turbility: _____ NTU	Water Temp: _____ °F

Attach copy of Chain of Custody Record (see manual for example form)

Attach copy of Chain of Custody Record (see manual for example form)

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none ~~sediments~~ oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: none fish algae (other) shrubs

Signature: _____

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

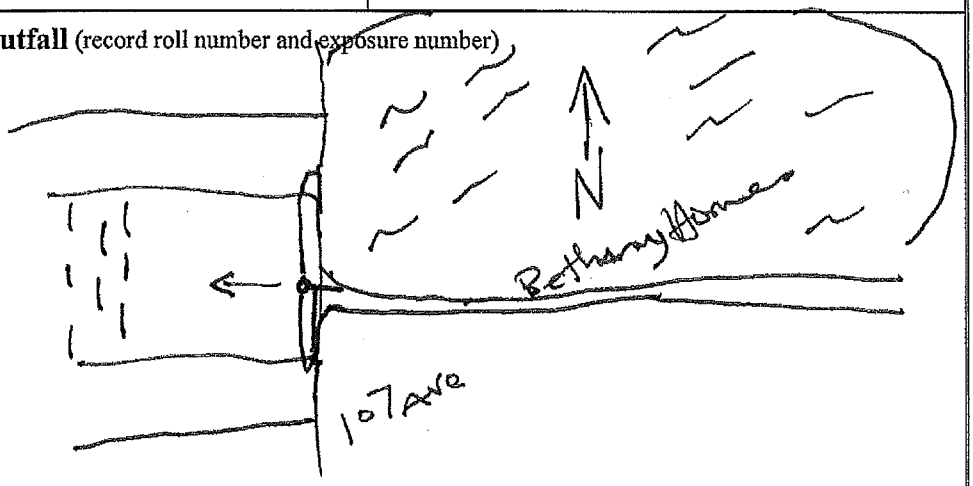
Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

Signature: _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container: Volume:_____(gal) Time: _____(sec)	A. Free Fall into container: Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)	B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)



Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :

Photo D3

Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: Open Channel to South Bank of Salt River

Outfall Location Code: 202-14.22 (see manual, pp FCD-1-5) **L.U.Type** mixed (see reverse)

Receiving Water: Salt River. (water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: 1000' W. of Mesa Drive, 2200' N of 202 (nearest intersection of landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): none (normal) excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit	2nd Visit (>4 hours and <24 hours later)
Date/Time: 4:15 pm 8/28/08	Date/Time: _____
Precipitation <96 hours? (Yes) / No	Precipitation <96 hours? Yes / No
Flow? Yes (No)	Flow? Yes / No
pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F
Attach copy of Chain of Custody Record (see manual for example form)	
pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F
Attach copy of Chain of Custody Record (see manual for example form)	

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: (none) sediments oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: (none) fish algae other

Signature: [signature]

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

Signature: _____

1st Visit

Use one of the following:

A. Free Fall into container:

Volume:_____(gal) Time: _____(sec)

B. Channel/pipe Flow (provide sketch):

Depth:_____(in) Width: _____(in)

Velocity: _____(ft/sec)

Discharge estimate: _____(gpm)

2nd Visit (>4 hours and <24 hours later)

Use one of the following:

A. Free Fall into container:

Volume:_____(gal) Time: _____(sec)

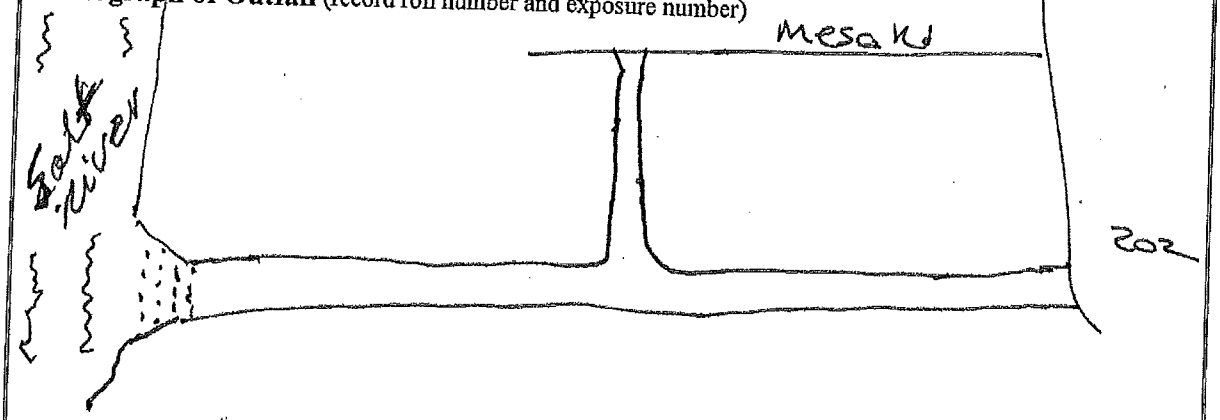
B. Channel/pipe Flow (provide sketch):

Depth:_____(in) Width: _____(in)

Velocity: _____(ft/sec)

Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)



Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :

Photo D4

Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: Open Channel out fall - Salt River.

Outfall Location Code: 202 - 7.98 (see manual, pp FCD-1-5) **L.U.Type** Mixed (see reverse)

Receiving Water: Salt River (water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: Marina Parking lot. South of 202 (nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): SR24 (Tag)

Vegetative Growth (circle one): none normal excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit	**2nd Visit** (>4 hours and <24 hours later)
Date/Time: 2:45 8/28/08	Date/Time:
Precipitation <96 hours? (Yes) / No	Precipitation <96 hours? Yes / No
Flow? Yes / (No)	Flow? Yes / No

pH: : _____ su	Color: # _____	pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm	Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N	Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N	Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F	Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F	Turbility: _____ NTU	Water Temp: _____ °F

Attach copy of Chain of Custody Record (see manual for example form)

Attach copy of Chain of Custody Record (see manual for example form)

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: (none) sediments oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

Signature: [signature]

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

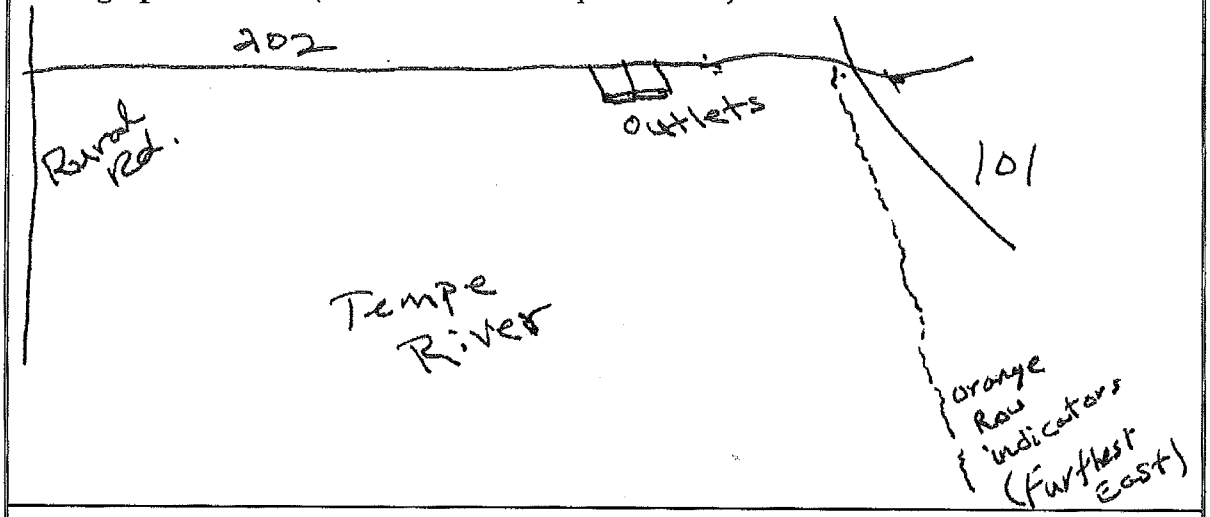
Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

Signature: _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container:	A. Free Fall into container:
Volume:_____(gal) Time: _____(sec)	Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch):	B. Channel/pipe Flow (provide sketch):
Depth:_____(in) Width: _____(in)	Depth:_____(in) Width: _____(in)
Velocity: _____(ft/sec)	Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)



Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :

Photo D5

Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: North Bank Salt River under 202 Bridge

Outfall Location Code: 202-8.28 (see manual, pp FCD-1-5) **L.U.Type** Mixed (see reverse)

Receiving Water: Salt River
(water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: Furthest walk NE on walkway from marina
(nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): none normal excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit		**2nd Visit** (>4 hours and <24 hours later)	
Date/Time: 2:59pm 8/28/08		Date/Time:	
Precipitation <96 hours? (Yes) / No		Precipitation <96 hours? Yes / No	
Flow? Minimal - no odor (Yes) / No		Flow? Yes / No	
pH: : _____ su	Color: # _____	pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm	Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N	Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N	Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F	Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F	Turbility: _____ NTU	Water Temp: _____ °F
Attach copy of Chain of Custody Record (see manual for example form)		Attach copy of Chain of Custody Record (see manual for example form)	

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: ~~none~~ Light sediments oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: ~~none~~ fish algae other

Signature: [signature]

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

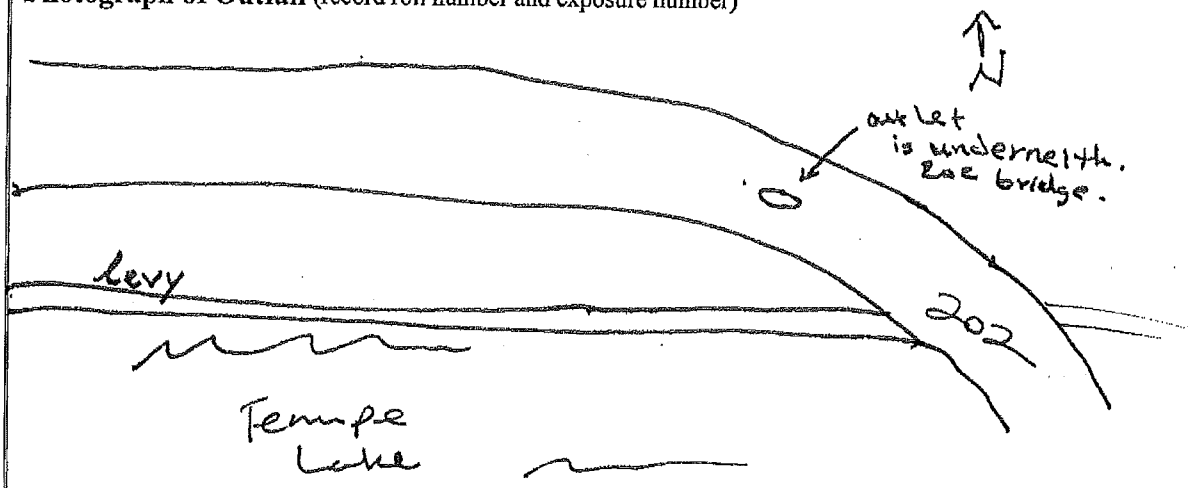
Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

Signature: _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container: Volume:_____(gal) Time: _____(sec)	A. Free Fall into container: Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)	B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)



Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :

Photo 06

Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: Indian Bend Wash, N. of Thunderbird Rd.

Outfall Location Code: 51-11.62 (see manual, pp FCD-1-5) **L.U.Type** Mixed (see reverse)

Receiving Water: Indian Bend Wash (water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: N.E. Corner of 51 & Thunderbird (nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): none normal excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit	2nd Visit (>4 hours and <24 hours later)
Date/Time: 8/28/08 10:45 Am	Date/Time:
Precipitation <96 hours? (Yes) / No	Precipitation <96 hours? Yes / No
Flow? Yes / (No)	Flow? Yes / No
pH: : 8.55 su	Color: # Clear
Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: 86.2 °F
Attach copy of Chain of Custody Record (see manual for example form)	
pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F
Attach copy of Chain of Custody Record (see manual for example form)	

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none (sediments) oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: none fish (algae) other

Signature: [signature]

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

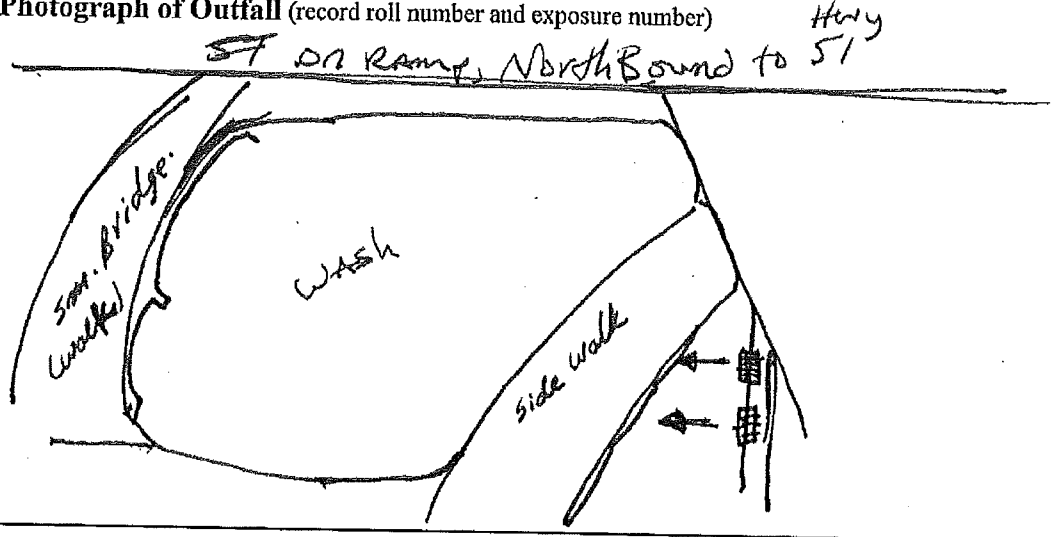
Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

Signature: _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following: A. Free Fall into container: Volume:_____(gal) Time: _____(sec) B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity:_____(ft/sec) Discharge estimate: _____(gpm)	Use one of the following: A. Free Fall into container: Volume:_____(gal) Time: _____(sec) B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec) Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)



Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :

Photo D7

Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: Open Channel Outfall into Sossaman Rd

Outfall Location Code: 60-189.65 (see manual, pp FCD-1-5) **L.U.Type** Mixed (see reverse)

Receiving Water: Sossaman Channel (water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: _____ (nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): none normal excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit	**2nd Visit** (>4 hours and <24 hours later)
Date/Time: 6/3/08 10:15 AM	Date/Time: _____
Precipitation <96 hours? Yes / (No)	Precipitation <96 hours? Yes / No
Flow? Yes / (No)	Flow? Yes / No

pH: : _____ su	Color: # _____	pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm	Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N	Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N	Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F	Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F	Turbility: _____ NTU	Water Temp: _____ °F
Attach copy of Chain of Custody Record (see manual for example form)		Attach copy of Chain of Custody Record (see manual for example form)	

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none (sediments) oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: none fish (algae) other

Signature: _____

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

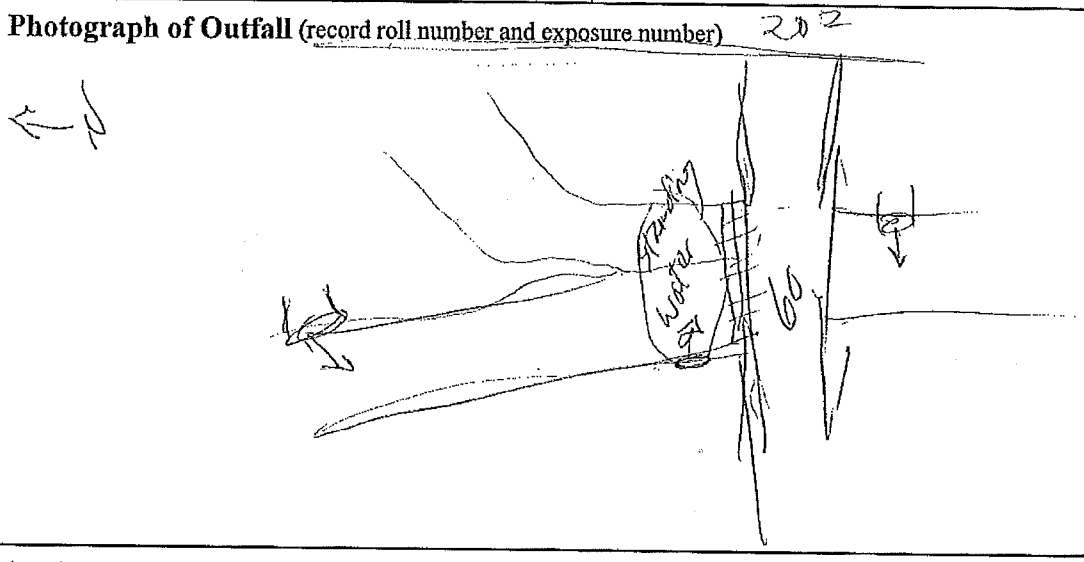
Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

Signature: _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container: Volume:_____(gal) Time: _____(sec)	A. Free Fall into container: Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)	B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number) 202



Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :

Photo 08

Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: 51-7.04 : Dreamy Draw Wash / South of Northern

Outfall Location Code: 51-7.04 (see manual, pp FCD-1-5) **L.U.Type** mixed (see reverse)

Receiving Water: Dreamy Draw Channel
(water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: SE of 51 off ramp to Northern
(nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): N/A

Vegetative Growth (circle one): none normal (excessive growth) inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit 9:15AM	2nd Visit (>4 hours and <24 hours later)
Date/Time: 8/28/08	Date/Time:
Precipitation <96 hours? (Yes) / No	Precipitation <96 hours? Yes / No
Flow? Yes / (No)	Flow? Yes / No

pH: : ____ su	Color: # ____	pH: : ____ su	Color: # ____
Cl2: ____ ppm	Ammonia: ____ ppm	Cl2: ____ ppm	Ammonia: ____ ppm
Cu: ____ ppm	Oil sheen: Y / N	Cu: ____ ppm	Oil sheen: Y / N
Phenols: ____ ppm	Surface scum: Y / N	Phenols: ____ ppm	Surface scum: Y / N
Deterg: ____ ppm	Air Temp: ____ °F	Deterg: ____ ppm	Air Temp: ____ °F
Turbility: ____ NTU	Water Temp: ____ °F	Turbility: ____ NTU	Water Temp: ____ °F

Attach copy of Chain of Custody Record (see manual for example form)

Attach copy of Chain of Custody Record (see manual for example form)

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: (none) sediments oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: (none) fish algae other

Signature: [signature]

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

Odor: none musty sewage rotten eggs solvent chlorine other

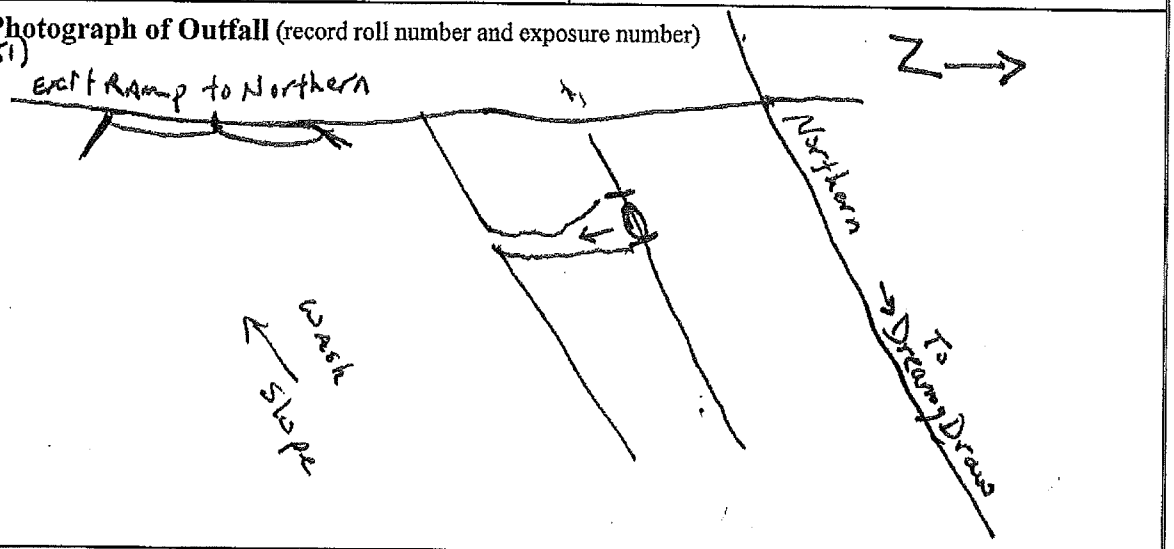
Biological: none fish algae other

Signature: ____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container:	A. Free Fall into container:
Volume:_____(gal) Time: _____(sec)	Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch):	B. Channel/pipe Flow (provide sketch):
Depth:_____(in) Width: _____(in)	Depth:_____(in) Width: _____(in)
Velocity: _____(ft/sec)	Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)

(51)



Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :

Photo 09

Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

Tucson

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: 72" CMP Outfall 72-7174

Outfall Location Code: S. Bank of Rillito River E **L.U.Type** mixed
(see manual, pp FCD-1-5) (see reverse)

Receiving Water: Rillito River
(water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: ¼ mile east of Oracle Rd Bridge on south bank
(nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): (none) normal excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit	**2nd Visit** (>4 hours and <24 hours later)
Date/Time: 8/29/08 10:30AM	Date/Time: _____
Precipitation <96 hours? (Yes) / No (No 72hrs?)	Precipitation <96 hours? Yes / No
Flow? Minimal Flow - From irrigation (Yes) / (No)	Flow? Yes / No

pH: : 8.85 su	Color: # _____	pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm	Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / (N)	Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / (N)	Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F	Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: 81.6 °F	Turbility: _____ NTU	Water Temp: _____ °F

Attach copy of Chain of Custody Record (see manual for example form)

Attach copy of Chain of Custody Record (see manual for example form)

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: (none) sediments oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: (none) fish (algae) other

Signature: _____

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

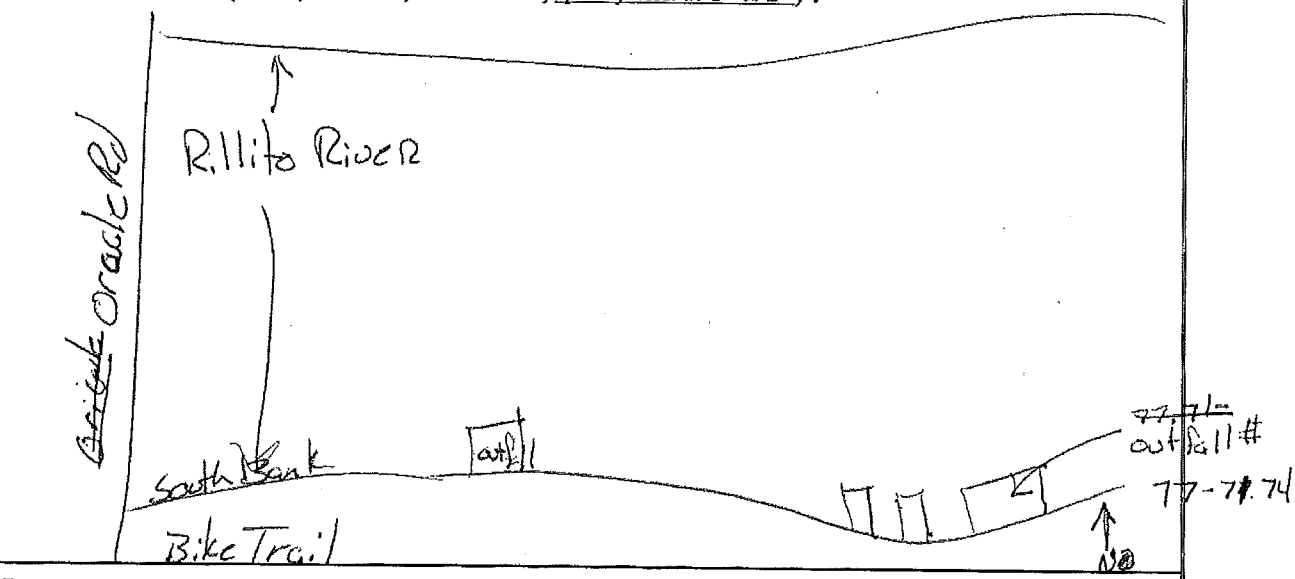
Signature: _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container: Volume:_____(gal) Time:_____(sec)	A. Free Fall into container: Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)	B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)

Photo 010

Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :



Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: _____

Outfall Location Code: 77-78.7 (see manual, pp FCD-1-5) **L.U.Type** mixed (see reverse)

Receiving Water: Rillito (water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: _____ (nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): none normal excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit	**2nd Visit** (>4 hours and <24 hours later)
Date/Time: 8/27/08 12:10	Date/Time: _____
Precipitation ~~<96~~ 72 hours? Yes / (No)	Precipitation <96 hours? Yes / No
Flow? Yes / (No)	Flow? Yes / No

pH: : _____ su	Color: # _____	pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm	Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N	Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N	Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F	Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F	Turbility: _____ NTU	Water Temp: _____ °F
Attach copy of Chain of Custody Record (see manual for example form)		Attach copy of Chain of Custody Record (see manual for example form)	

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none (sediments) oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: ~~none~~ fish algae other

Signature: _____

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

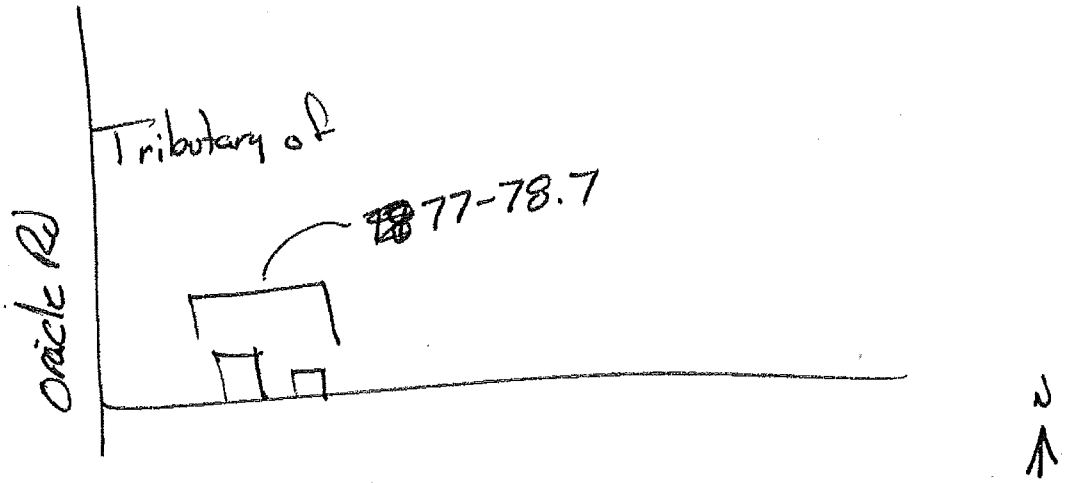
Signature: _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container: Volume:_____(gal) Time: _____(sec)	A. Free Fall into container: Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)	B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)

Photo D11

Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :



Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

Tucson

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: _____

Outfall Location Code: 77-78.9 **L.U.Type** mixed
(see manual, pp FCD-1-5) (see reverse)

Receiving Water: NE of ~~Monthe~~ 2nd over Pass North of Greenrock Dr
(water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: _____
(nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): _____

Vegetative Growth (circle one): none normal excessive growth inhibited growth

(If no flow but excessive or inhibited growth, schedule additional site visit).

1st Visit		**2nd Visit** (>4 hours and <24 hours later)	
Date/Time: 1245 8/27/08		Date/Time: _____	
Precipitation <~~96~~ hours? Yes / (No)		Precipitation <96 hours? Yes / No	
Flow? Yes / (No)		Flow? Yes / No	
pH: : _____ su	Color: # _____	pH: : _____ su	Color: # _____
Cl2: _____ ppm	Ammonia: _____ ppm	Cl2: _____ ppm	Ammonia: _____ ppm
Cu: _____ ppm	Oil sheen: Y / N	Cu: _____ ppm	Oil sheen: Y / N
Phenols: _____ ppm	Surface scum: Y / N	Phenols: _____ ppm	Surface scum: Y / N
Deterg: _____ ppm	Air Temp: _____ °F	Deterg: _____ ppm	Air Temp: _____ °F
Turbility: _____ NTU	Water Temp: _____ °F	Turbility: _____ NTU	Water Temp: _____ °F
Attach copy of Chain of Custody Record (see manual for example form)		Attach copy of Chain of Custody Record (see manual for example form)	

Physical Observations (1st Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: (none) sediments oily other

Odor: (none) musty sewage rotten eggs solvent chlorine other

Biological: (none) fish algae other

Signature: _____

Physical Observations (2nd Visit):
(circle appropriate descriptors, for "other" write in description)

Deposits: none sediments oily other

Odor: none musty sewage rotten eggs solvent chlorine other

Biological: none fish algae other

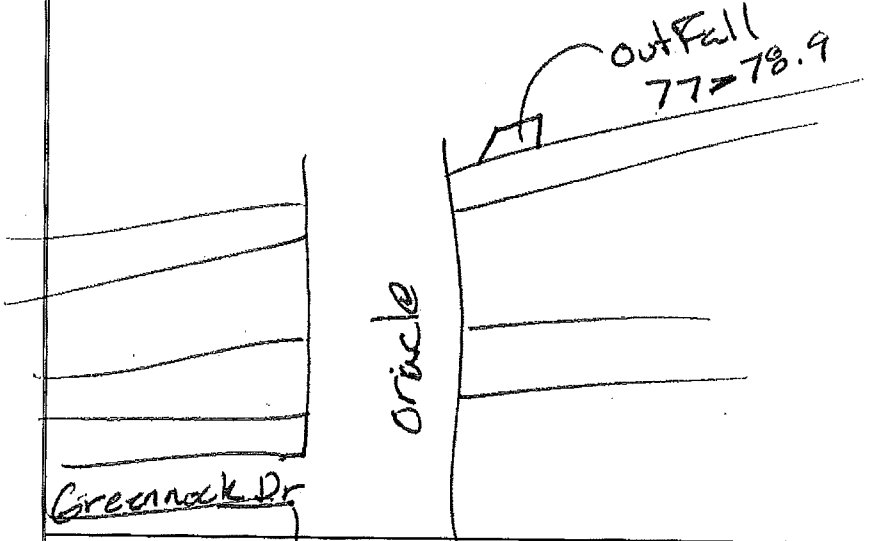
Signature: _____

1st Visit	2nd Visit (>4 hours and <24 hours later)
Use one of the following:	Use one of the following:
A. Free Fall into container: Volume:_____(gal) Time: _____(sec)	A. Free Fall into container: Volume:_____(gal) Time: _____(sec)
B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)	B. Channel/pipe Flow (provide sketch): Depth:_____(in) Width: _____(in) Velocity: _____(ft/sec)
Discharge estimate: _____(gpm)	Discharge estimate: _____(gpm)

Photograph of Outfall (record roll number and exposure number)

Photo D12

Additional Notes (sketch, flow data, observations, specify visit as 1st or 2nd) :



Land Use (L.U.) Type: Indicate dominant watershed land use as residential, industrial, commercial, agricultural, mixed , unknown

APPENDIX D: Dry Weather Screening Photos

Photo No. D-1

Description: Outfall 101-13.44 located near Thunderbrid Rd. and 88th Avenue

View: North

Date: August 28, 2008

Photo No. D-2

Description: Outfall 101-25.92 located south of Loop-101 and west of 7th Street

View: Northeast

Date: August 28, 2008

Photo No. D-3

Description: Outfall 101-06.05 located at the intersection of Bethany Homes Rd and 107th Avenue

View: East

Date: August 28, 2008

Photo No. D-4

Description: Outfall 202-14.22 located north of Loop-202 and west of Mesa Drive

View: North

Date: August 28, 2008

Photo No. D-5

Description: Outfall 202-07.98 located east of Rural Rd and south of Loop-202

View: East

Date: August 28, 2008

Photo No. D-6

Description: Outfall 202-08.28 located at the east end of Tempe Town Lake, under Loop-202 and east of Rural Road

View: Northeast

Date: August 28, 2008

Photo No. D-7

Description: Outfall 51-11.62 located north of Thunderbird Rd and east of Hwy-51

View: North

Date: August 28, 2008

Photo No. D-8

Description: Outfall 60-189.65 located north of Hwy-60 and ¼ mile west of Sossaman Road

View: South

Date: August 28, 2008

Photo No. D-9

Description: Outfall 51-07.04 located on the southeast corner of Northern Ave and Hwy-51 exit northbound

View: Northwest

Date: August 28, 2008

Photo No. D-10

Description: Outfall 77-71.74 located on the south bank of Rillito River in Tucson

View: South

Date: August 27, 2008

Photo No. D-11

Description: Outfall 77-78.07 located south of Greenock Dr and Oracle Road in Tucson

View: West

Date: August 27, 2008

Photo No. D-12

Description: Outfall 77-78.9 located north of Greenock Dr and west of Oracle Road in Tucson

View: North

Date: August 27, 2008

APPENDIX E: ADOT Major Outfalls Table

Outfall Identifier	Storm Sewer Data			Location Data						Construction Plan Data		
Route No – Mile Post	Type	Size / Depth	Material	Route No. Route Name	Receiving Water	Location	East	North	City	Project ID No	Project Station	Offset L/R
101-6.05	Trapezoidal Open Channel	TW=102' D=12'	Concrete	Loop 101 Agua Fria Freeway	New River	300' W of 107th Ave.	586,000	917,800	Glendale	101L MA 005	357+00	L
101-7.76	Trapezoidal Open Channel	TW=82' D=8'	Concrete	Loop 101 Agua Fria Freeway	New River	¼ mile S. of Northern Ave. and 1000' W. of 99th Ave.	590,450	927,350	Glendale	M-600-0-501	440+83	L 1650
101-10.84	Trapezoidal Open Channel	TW=65' D=12'	Concrete & Soil Cement	Loop 101 Agua Fria Freeway	New River	½ mile N. of Peoria Ave. along E. Bank of New River	594,450	941,650	Peoria	M-600-0-502	603+68	L 920
101-11.85	Trapezoidal Open Channel	TW=45' D=8'	Concrete	Loop 101 Agua Fria Freeway	New River	½ Mile S. of Thunderbird Rd. and 300' West	596,400	946,600	Peoria	M-600-0-502	658+30	L 715
101-13.44	Dual Circular Pipe	DIA=42"	Concrete	Loop 101 Agua Fria Freeway	Skunk Creek	200' S. of S.B. Bridge over Skunk Creek and 80' East	601,500	953,100	Peoria	M-600-0-502	742+10	L 260
101-13.68	Trapezoidal Open Channel	TW=22' D=4'	Concrete	Loop 101 Agua Fria Freeway	Skunk Creek	30 ' N of NB Bridge over Skunk Creek and 80' E	601,900	953,650	Peoria	M-600-0-502	750+84	L 135
101-14.38	Open Channel	TW=28' D=10'	Concrete	Loop 101 Agua Fria Freeway	New River	1200' S. of Bell Road Traffic Interchange & 300' West	601,650	958,750	Peoria	M-600-0-502	800+00	L 300
101-15.18	Circular Pipe	DIA=48"	Concrete	Loop 101 Agua Fria Freeway	New River	4/10 Mile N of Bell Rd. & 500' West	602,550	962,150	Glendale	M-600-0-502	834+00	L 560
101-16.31	Circular Pipe	DIA=48"	Concrete	Loop 101 Agua Fria Freeway	New River	4/10 of a mile S. of Beardsley Rd. and 300' W.	603,650	968,000	Glendale	M-600-0-503	895+00	L 340
101-16.62	Circular Pipe	DIA=48"	Concrete	Loop 101 Agua Fria Freeway	New River	2/10 of a mile S. of Beardsley Rd. and 500' W	604,150	969,550	Glendale	M-600-0-503	908+25	L 560
101-16.74	Trapezoidal Open Channel	TW=56' D=11'	Concrete	Loop 101 Agua Fria Freeway	New River	150' S of Beardsley Rd. & 2800' W. of 75 Ave	604,850	970,300	Glendale	M-600-0-503	917+50	L 550
101-20.19	Circular Pipe	DIA=36"	Concrete	Loop 101 Agua Fria Freeway	Skunk Creek	½ Mile S. of Beardsley Rd. at 51st Ave	623,150	968,650	Glendale	RBA-600-0-505	1098+50	
101-21.23 B	Circular Pipe	DIA=42"	Concrete	Loop 101 Agua Fria Freeway	Skunk Creek	245' E of 43rd Ave & N. Side of Beardsley	628,650	971,400	Phoenix	RBA-600-0-505	1154+50	
101-21.23 A	Trapezoidal Open Channel	TW=20' D=2'	Concrete	Loop 101 Agua Fria Freeway	Skunk Creek	260' E of 43rd Ave & N side of N Frontage Rd.	628,650	971,450	Phoenix	RBA-600-0-505	1154+65	
101-21.83	Circular Pipe	DIA=96"	Concrete	Loop 101 Agua Fria Freeway	Scatter Wash	2000' W. of 35th Ave. & S. side of S. Frontage Rd.	631,750	971,050	Phoenix	RBA-600-0-505	1186+00	
101-21.87A	Trapezoidal Open Channel	TW=32' D=8'	Concrete	Loop 101 Agua Fria Freeway	Scatter Wash	1500' W of 35th Ave & N side of N Frontage Rd.	632,000	971,500	Phoenix	RBA-600-0-505	1188+00	
101-21.87B	Circular Pipe	DIA=42"	Concrete	Loop 101 Agua Fria Freeway	Scatter Wash	1600' W. of 35th Ave & N side of N. Frontage Rd.	632,000	971,450	Phoenix	RBA-600-0-505	1187+00	
101 - 25.92	2 Barrel Box Culvert	2 - 8' x 6'	Concrete	Loop 101 Pima Freeway	Cave Creek	S. of 101, 1/4 mile west of 7th St into east bank of Cave Creek	653,200	970,600	Phoenix	AC-STP-600-1-(13)B	42+778 (m.)	L 232 (ft.)
101 - 50.87	2 Barrel Box Culvert	2 - 10' x 10'	Concrete	Loop 101 Pima Freeway	Salt River	N bank of Salt River in NE quadrant of 101 / 202 interchange	708,150	887,350	Mesa			
101-51.07	3 Barrel Box Culvert	3 - 12' x 12'	Concrete	Loop 101 Price Freeway	Salt River	S bank of Salt River, E of 101 under 202 interchange	707,900	886,850	Mesa	RAM-600-1-512	203+00	
10-130.2	Circular Pipe	DIA=48"	Concrete	I-10 Papago Freeway	Salt River	W. bank of Agua Fria River under Van Buren St.	572,634	890,899	Avondale	I-10-2 (75)	6868+90	R
10-130.3 Papago Channel	Trapezoidal Open Channel	TW=80' D=10'	Concrete	I-10 Papago Freeway	Agua Fria River	½ Mile W. of El Mirage Rd. & 100' N. of I-10	573,800	894,850	Avondale	I-10-2 (75)	6869+10	L
10-145.17 West Tunnel	Circular Tunnel	DIA=21"	Concrete	I-10 Papago Freeway	Salt River	Central Ave. W side @ N. Bank of Salt River	652,050	881,600	Phoenix	I-10-3(223)	7677+00	R
10-149.18 East Tunnel	Circular Tunnel	DIA=21"	Concrete	I-10 Papago Freeway	Salt River	20th St. E. side@ N. Bank of Salt River	662,550	879,500	Phoenix	I-10-3(225)	7866+00	R
10-150.44	Circular Pipe	D=36"	Concrete	I-10 Maricopa Freeway	Salt River	N. Bank of Salt River @ W side of I-10	668,550	880,250	Phoenix	I-10-3(206)	7936+00	R
10-150.45	Dual Circular Pipe	D=72"	Concrete	I-10 Maricopa Freeway	Salt River	N. Bank of Salt River @ E. side of I-10	668,900	880,450	Phoenix	I-10-3(206)	7936+00	L

Outfall Identifier	Storm Sewer Data			Location Data						Construction Plan Data		
Route No – Mile Post	Type	Size / Depth	Material	Route No. Route Name	Receiving Water	Location	East	North	City	Project ID No	Project Station	Offset L/R
10-151.06	Circular Pipe	D=66”	Concrete	I-10 Maricopa Freeway	Tempe Drain	NW Quadrant of I-10 & University Traffic Interchange	671,200	878,150	Phoenix	I-10-3(206)	7945+00	L
10 - 162.44	Dual Box Culverts	2 - 10' x 8'	Concrete	I-10 Maricopa Freeway	Gila Floodway	NW quadrant of I-10 / Maricopa Road Interchange	683,750	829,700	Phoenix			
143-2.90	Circular Pipe	D=66”	Concrete	S.R. 143 Hohokam Expressway	Old Cross Cut Canal	600’ N. of Van Buren & 350’ E of S.R. 143 at west bank of Old Cross Cut Canal	680,250	892,250	Phoenix	143-MA-H-0843-01D	166+71	R350
153 - 1.64	Circular Pipe	D=72”	Concrete	S.R. 153 Sky Harbor Expressway	Salt River	S. bank of Salt River west of expressway	680,200	883,950	Phoenix	153 MA 003	50+88.05	L
17 - 198.48	Circular Pipe	D=102”	Concrete	I-17 Black Canyon Freeway	Salt River	2200’ S. of Buckeye Rd. & 1700’ E. of 27th Ave.	638,850	879,550	Phoenix	I-17-1(9)	69+60	L 6000
17-208.2	Circular Pipe	D=36”	Concrete	I-17 Black Canyon Freeway	Arizona Canal Diversion Channel	¼ mile north of Dunlap, west of I-17 into Az Canal	638,550	935,400	Phoenix	I-17-3-912	582+45	L 153
202-3.57	Dual Box Culverts	2 - 3' x 4'	Concrete	Loop 202 East Papago Freeway	Old Cross Cut Canal	Directly under Loop 202/SR143 interchange at E. bank of Relocated Old Cross Cut Canal	679,900	894,200	Phoenix	202L-MA-H-0858-01D	34+60	L163
202-5.14	Open Channel	TW=60’ D=5'	Earthen	Loop 202 East Papago Freeway	Salt River	N of north side levee on Salt River ¼ mile west of 202 and E of 143	683,300	887,700	Phoenix	202L-MA-H-0858-01D	112+00	R290
202-5.90	Circular Pipe	DIA=36"	Concrete	Loop 202 East Papago Freeway	Salt River	1000’ E. of Priest Dr. and 2200’ N. of 1st St.	687,400	886,250	Tempe	202L-MA-H-0858-01D	148+80	R 280
202-7.44	Circular Pipe	DIA=48"	Concrete	Loop 202 East Papago Freeway	Salt River	1100’ W. of Rural Rd. @ N Bank of Salt River	695,700	885,150	Tempe	202L-MA-H-0858-01D	230+10	R 850
202-7.98	Dual Box Culvert	2 - 8' x 8'	Concrete	Loop 202 East Papago Freeway	Salt River	1100’ E. of Rural Rd. @ N. Bank of Salt River	698,400	885,350	Tempe	202L-MA-H-0858-01D	258+60	R865
202-8.28	Circular Pipe	D=48”	Concrete	Loop 202 East Papago Freeway	Salt River	2300’ E. of Rural Rd. @ N. Bank of Salt River	699,950	886,050	Tempe	H-0861-04C	247+90	R 20
202-8.65	Circular Pipe	D=36”	Concrete	Loop 202 East Papago Freeway	Salt River	4000’ E. of Rural Rd. @ N. Bank of Salt River	700,800	885,850	Tempe	H-0861-04C	289+20	R 150
202 - 14.22	Trapezoidal Open Channel	TW=43’ D=11'	Concrete	Loop 202 East Red Mt. Freeway	Salt River	S bank of Salt River, 1000' W of Mesa Dr, 2200' N of 202	727,800	897,500	Mesa	AC-STP-600-8(9)B	595+00	L
51-5.45	Circular Pipe	D=48”	Concrete	S.R. 51 Squaw Peak Parkway	Arizona Canal Diversion Channel	300’ N & W of Intersection @ 18th St. and Ocotillo	661,700	922,450	Phoenix	C.O.P. BR-885442	270+55	L
51-7.04	Circular Pipe	D=48”	Concrete	S.R. 51 Squaw Peak Parkway	Dreamy Draw Wash	400’ S and E of Intersection @ Northern and Squaw Peak Freeway	663,200	930,650	Phoenix	M-600-Z-502	84+50	L
51-8.22	Concrete Box Culvert	10' x 6'	Concrete	S.R. 51 Squaw Peak Parkway	Dreamy Draw Wash	500' E of Northern, 400' S of 51 @ Dreamy Draw	667,000	934,950	Phoenix	M-600-2-506	146+85	R 170
51 - 10.91	Trap Channel	TW=86’ D=8'	Concrete	S.R. 51 Squaw Peak Parkway	Indian Bend Wash	¼ mile east of 51, 250' S of Sweetwater into Indian Bend Wash	673,000	947,250	Phoenix	RAM-600-2-514	100+00	R
51 - 11.62	Circular Pipe and Box Culvert	84" pipe,10' x 6' CBC	Concrete	S.R. 51 Squaw Peak Parkway	Indian Bend Wash	400' N of Thunderbird into Indian Bend Wash	671,850	950,550	Phoenix	RAM-600-2-522	9+95.12	
87-178.55	Open Channel		Concrete	S.R. 87 Mesa-Payson Hwy	Salt River	S. of S.R.87 east of McDowell Rd intersection	723,848	896,765	Mesa	AC-STP-053-1(29)	425+10	R
60-187.43	Trapezoidal Open Channel	TW=44’ D=8'	Concrete	S.R. 60 Superstition Freeway	East Maricopa Floodway	½ mile E of Higley Rd. & S.R. 60 Traffic Interchange north side	765,800	868,450	Phoenix	BP-028-1-509	815+80	L 65
60-189.65	Trapezoidal Open Channel	TW=48’ D=9'	Concrete	S.R. 60 Superstition Freeway	Sossoman Channel	¼ mile E of Sossman & S.R. 60 Traffic Interchange	777,300	868,500	Phoenix	F-028-1-514	939+80	L 130

Outfall Identifier	Storm Sewer Data				Location Data					Construction Plan Data		
Route No – Mile Post	Type	Size / Depth	Material	Route No. Route Name	Receiving Water	Location	East	North	City	Project Id No	Project Station	Offset L/R
10-260.7	Circular Pipe	DIA=72"	Concrete	I-10	Julian Wash	N. Side of Julian Wash at 10th Ave. S. of I-10	991,400	433,500	Tucson	IR-10-5(54)	10th Ave 1+100	
10-261.5	Circular Pipe	DIA=78"	Concrete	I-10	Julian Wash	1400' W. of S. Park Ave., 1300' N. of Ajo Way- E. of SPRR	995,600	430,950	Tucson	IR-10-5(54)	Line C 0+00	
10-264.6	Oval Pipe	56" X 42"	Corrugated Metal	I-10	Julian Wash	1200' S. of I-10 & Palo Verde Rd. Interchange, W. side of Palo Verde & N. Bank Julian Wash	1,009,150	422,950	Tucson	I-10-5(58)-28		
19-59.0	Circular Pipe	DIA=36"	Corrugated Metal	I-19 Nogales Freeway	Santa Cruz River	1200' S. of I-19 & Valencia Interchange S. of Valencia & E. bank Santa Cruz River	986,250	412,750	Tucson	I-19-1(15)	3105+01	L
19-61.7	Trapezoidal Open Channel	TW=10' D=2'	Concrete	I-19 Nogales Freeway	Rodeo Wash	900' S. of I-19 & Ajo Way Interchange E. side of I-19 & S. Bank of Rodeo Wash	988,300	428,900	Tucson	I-19-1(15)	3270+80	R
86-171.1	Circular Pipe	DIA=36"	Corrugated Metal	S.R. 86 Ajo Highway	Santa Cruz River	1600' S. of I-19 & Ajo Way Interchange @ W. bank of Santa Cruz River S. of Ajo Way	986,450	429,600	Tucson	S-222-14	1447+78	R
77-71.74	Circular Pipe	DIA=72"	Corrugated Metal	U.S. 77 Tucson Florence Highway	Rillito River	S. Bank of Rillito River E. of Oracle Road	990,700	471,450	Tucson	F-031-1(7)	6+55	R
77-71.8	Open Channel	TW=40' D=7'	Concrete	U.S. 77 Tucson Florence Highway	Rillito River	N. Bank of Rillito River E. of Oracle Road	990,900	471,700	Tucson			
77-78.7	Circular Pipe	2 DIA=36"	Corrugated Metal	U.S. 77 Tucson Florence Highway	Tributary of Canada Del Oro	S.E. Quadrant of U.S. 77 & Greenock Dr	994,350	507,500	Oro Valley	F-031-1(11)	564+00	R
77-78.9	Circular Pipe	DIA=42"	Concrete	U.S. 77 Tucson Florence Highway	Tributary of Canada Del Oro	N.E. Quadrant of U.S. 77 & Greenock Dr	994,350	507,500	Oro Valley	F-031-1(11)	569+00	R
77-79.9	Open Channel	TW=25' D=8'	Concrete	U.S. 77 Tucson Florence Highway	Tributary of Canada Del Oro	S.E. Quadrant of U.S. 77 and Hanley Road	998,150	511,800	Oro Valley	BP-031-1-513	820+55	R
77-80.8	Open Channel	TW=30' D=10'	Concrete	U.S. 77 Tucson Florence Highway	Canada Del Oro	N.W. Quadrant of U.S. 77 and Canada Del Oro	1,001,800	515,600	Oro Valley	BP-031-1-513	875+74	L
77-85.97	Dual Oval Pipe	2 - 43" x 27"	Corrugated Metal	U.S. 77 Tucson Florence Highway	Tributary of Big Wash	W. of U.S . 77 and N. of Golden Ranch Road	1,005,900	541,350	Oro Valley			
210-1.2	Circular Pipe	DIA=96"	Concrete	S.R. 210 Aviation Parkway	Arroyo Chico	S.E. of Intersection of 10th Street & 3rd Ave.	994,900	445,800	Tucson	AZP-824-9-510	Line A 185+16	L 234
210-2.7	Circular Pipe	DIA=108"	Concrete	S.R. 210 Aviation Parkway	Railroad Wash	N.W. Quadrant @ Intersection of Campbell Ave. & Aviation Parkway	1,000,700	441,150	Tucson	M-824-9-514	18+07	L

Appendix F: STORM Report

Photo by City of Mesa

STORM Annual Report: FY 2008

Formation of Not-for-Profit Organization

STormwater Outreach for Regional Municipalities, known as STORM, is a regional organization promoting stormwater quality education within the greater Phoenix metropolitan area. STORM was founded in 2002, in response to federal regulations requiring certain municipalities to implement measures to educate the public on ways to protect the quality of stormwater runoff. The organization consisted of 21paid members.

In December 2005, STORM filed for not-for-profit status with the Arizona Corporation Commission. The trade names "STormwater Outreach for Regional Municipalities (STORM)" and "STORM" were filed with the Secretary of State. STORM officially became a not-for-profit charitable organization in February 2006. This status allows STORM to operate as a charitable organization and enables tax deductible contributions to promote stormwater pollution prevention. STORM's existing Operations Plan was modified and incorporated as the organization's By-Laws in February 2007 with further modification and adoption at the annual corporation meeting in June of 2008.

Membership in STORM

STORM recognizes two categories of membership: municipal and affiliate members.

Municipal membership is open to Municipal separate storm sewer system (MS4) owners required by Arizona Department of Environmental Quality (ADEQ) to have an Arizona Pollutant Discharge Elimination System (AZPDES) municipal stormwater permit. To effectively reach residents and create a regional message, municipal membership in STORM is limited to MS4 owners within the greater Phoenix metropolitan area. Based on the 2000 Census, over 3 million of the state's 5 million residents live in the greater Phoenix metropolitan area, providing a wide audience for regional education efforts. Representatives from other permitted MS4s located throughout Arizona are welcome to attend meetings and access resources and information generated by STORM.

Affiliate members are other jurisdictions or organizations that the STORM municipal members agree to include as affiliate members. The organization is governed by the municipal members; and as such, affiliate members are not allowed to vote on formal decisions made by the organization, but are strongly encouraged to be actively involved in monthly meetings and to take part in activities/events sponsored by STORM. Affiliate membership is not limited geographically to the greater Phoenix metropolitan area.

STORM elects a management board annually to help organize and guide operations. The FY2008 board consisted of four members elected by consensus of the municipal members for a fiscal year term: chair, co-chair, fiscal agent, and secretary. During FY 2008, STORM Board Members were:

- Chair: Stan Snitzer of Maricopa County (November 2006 – June 2008)
- Co-chair: Lee San Miguel, City of Avondale (November 2006 – June 2008)
- Fiscal Agent: Mike Loffa, City of Phoenix
- Secretary: Traci Varland, City of Peoria
- Director-at-large - John Meyer, City of Mesa

The Chair is responsible for facilitating all STORM meetings and acting as the lead informational point of contact for the STORM organization. The Co-Chair assists the Chair as needed in facilitating STORM meetings and disseminating information about the organization. The Fiscal Agent is responsible for providing and coordinating the collection and management of fees, other revenue and expenditures for the STORM organization. The Secretary is responsible for creating and distributing monthly meeting agendas and meeting notes.

The annual membership fee for municipal members is based on population from the 2000 Census, and a flat fee was established for affiliate members:

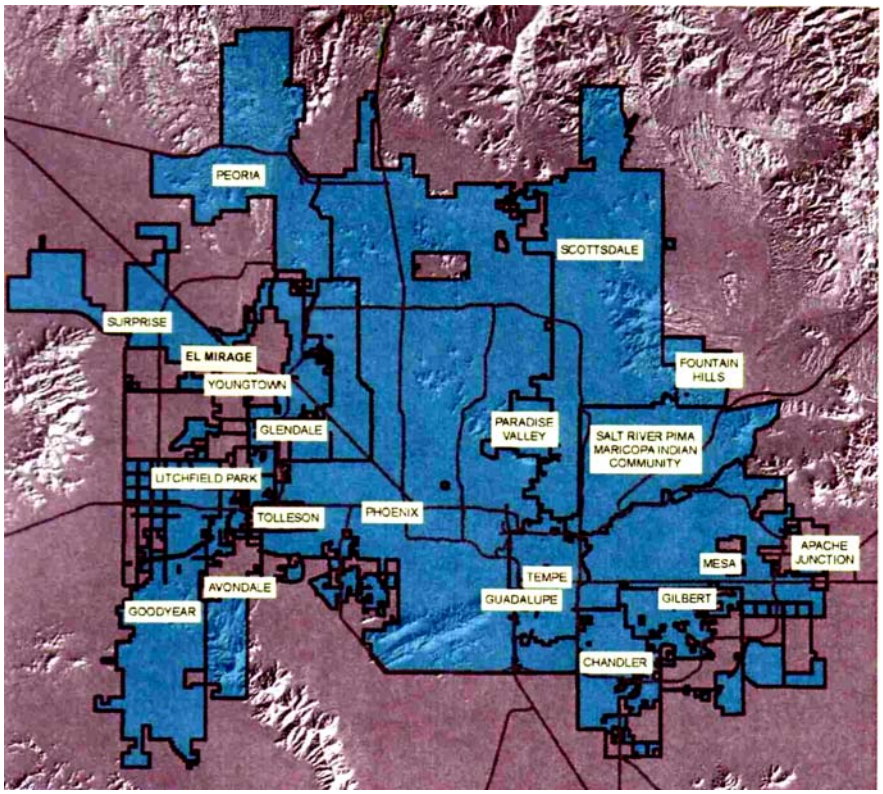
2000 Census Population	**Annual Membership Fee**
0 – 25,000	$1,000
25, 001 – 50, 000	$1,500
50, 001 – 100,000	$2,000
100,001 – 250,000	$2,500
Greater than 250,000	$5,000
Affiliate Members	$1,000

During FY 2008, STORM's 23 members included 6 Phase I MS4s, 16 Phase II MS4s and 1affiliate agency. STORM's current membership promotes stormwater pollution prevention to a large area of greater metropolitan Phoenix as indicated by the outlines of member communities in the following figure. Additional information on membership requirements is detailed in STORM's bylaws.

During fiscal year 2008, participating municipalities, affiliates and sponsors generated $43,500 through membership fees. A variety of in-kind contributions were made to this organization, including all member staff time. Without overhead or administrative costs involved, funds are used exclusively for program implementation activities. A 2008 financial summary of is provided in Attachment A.

FY 2008 Members

Arizona Department of Transportation (ADOT)
Town of Apache Junction
City of Avondale
City of Chandler
City of El Mirage
Town of Fountain Hills
Town of Gilbert
City of Glendale
City of Goodyear
Town of Guadalupe
City of Litchfield Park
Luke Air Force Base
Maricopa County (unincorporated area)
City of Mesa
Town of Paradise Valley
City of Peoria
City of Phoenix
City of Scottsdale
City of Surprise
City of Tempe
City of Tolleson
Salt River Pima Maricopa Indian Community
Maricopa County Flood Control District -Affiliate



Why Become a Member?

The traditional approach to public stormwater education and outreach is for individual communities to work independently. STORM encourages a new perspective at a regional level to improve public outreach and education. Members meet monthly to discuss ideas, gather information, and share results of stormwater management tools, techniques, programs, and initiatives.

Benefits of this collaborative effort include:

- Increased public awareness of the impacts of stormwater pollution
- Shared information and experiences
- Pooled financial resources
- Protection of the environment, and
- Improved quality of life.

Communities can realize a great economic benefit from their membership investment. For a relatively small contribution, members receive a significant return in public outreach and education, much more than they would have gained working

independently. This outreach program supplements individual community's stormwater management programs as required under ADEQ's permit program.

Membership in STORM also provides increased buying power that helps achieve bulk pricing on storm water pollution awareness promotional items. Additionally, the ability to cooperatively apply for grants and other financial assistance helps further the common goal of public education to reduce surface water pollutants and ultimately improve the regional water quality.

Monthly Meetings

STORM generally meets once a month to make decisions and to strategize on better methods to educate the public about stormwater quality and program requirements. Meeting minutes are posted on STORM's website under the "Operational Structure" section of the "STORM Organization" link.
http://www.azstorm.org/operational_structure.php

STORM generally meets the fourth Tuesday of each month at the Flood Control District of Maricopa County facility at 2801 West Durango. STORM does not meet during the month of December due to Holiday conflicts and vacation scheduling.

STORM's Key Accomplishments

The success of STORM is based on the synergy of bringing together resources, ideas, pooled funds, and talent of numerous municipalities and agencies to produce a regional education and outreach program. The accomplishments of this collaborative effort include:

STORM Bylaws

STORM revised their Operations Plan to act as the organization's bylaws as required by the incorporation status of the organization. In doing this, STORM created official language and applications to allow for affiliate membership and sponsors for the organization. This accomplishment allows STORM to actively pursue funding outside of the municipal membership while having developed specific guidelines for affiliate members and sponsors to follow. STORM adopted its new Bylaws during it annual Corporation meeting in June of 2008. The Bylaws will be posted on STORM's website in FY 2008.

"Only Rain in the Storm Drain"

STORM member agencies continued to express the consistent message of "Only Rain in the Storm Drain". This slogan is easily understood and clearly communicates the basic message of keeping pollutants out of the storm drain system. This message was communicated through STORM's English and Spanish web site, storm drain markers placed in various member communities, display boards, and promotional items.

STORM Web Site

STORM's web site, **www.azstorm.org**, promotes stormwater pollution prevention in both English and Spanish. It provides residents with direct links to their specific communities so they can receive individualized information and provides summaries of stormwater regulations. A kid's page was developed to further expand the community

information sections. STORM initially contracted with a website consultant to develop this web page. STORM continues to pay hosting fees to the consultant to keep the page active and oversees the operations of the website. STORM members maintain the information that is disseminated on the website and select members have administrative access in order to make minor changes as needed.

Summary of STORM Web site Activity – FY 2008

Month/Year	Unique Visitors	Number of Visits	Pages	Hits
July 2007	412	643	1,628	6,305
August 2007	410	655	1,644	5,822
September 2007	444	673	1,081	4,309
October 2007	563	803	1,195	4,930
November 2007	445	707	1,276	4,449
December 2007	304	571	1,384	3,447
January 2008	426	653	1,465	4,894
February 2008	406	602	1,222	4,371
March 2008	480	706	2,151	5,724
April 2008	420	624	1,236	4,440
May 2008	474	717	1,588	4,948
June 2008	451	670	1,402	3,915
Totals	5,235	8,024	17,272	57,554

Press Release

STORM members previously developed a press release describing the function of STORM so that a consistent message was available for all members to use. This press release remains posted to STORM's web page in the "NEWS" section for access to members.

Display Boards

Display boards for use at community outreach events have been previously developed illustrating the difference between sanitary sewer systems and storm drain systems and provide information on ways residents can limit adding pollutants to stormwater. These

display boards are available for use by STORM members at local events. More from the display boards can be seen in Attachment “B”

A Unified Outreach Reporting form is used by members to document when and where the display boards have been used. The reporting form allows STORM to more accurately determine the audience distribution, size, and impact to the audience where the banners are displayed. Members are asked to complete and submit these forms (after the fact) for this fiscal report. Copies of member’s reporting forms are provided in Attachment “D”.

Promotional Items

Various promotional items have been previously developed with STORM’s logo, website address, and/or mission statement. These are made available to members to distribute at local events. STORM expended $20,630.92 on promotional items for FY08. Promotional items available for distribution during FY 2008 included:

1. Magnetic clips with STORM’s logo and web site were developed and distributed to members for outreach and education. These clips are available to members as give-aways at special events.

2. A new program was initiated in 2008 STORM called “Bags-on-Board”. This project was aimed at reducing stormwater pollution from canine feces. STORM provided two local pet adoption agencies small containers holding plastic bags intended for proper collection and disposal of pet feces. The small refillable containers can be fastened to pet leashes. STORM expended more than $18,000 in purchasing this item for distribution. Each person adopting a dog at these facilities receives a “Bags-on-Board container bearing the STORM logo and information regarding the STORM website. Between the two adoption centers an estimated 10,000 dogs are adopted in the region annually.

3. The STORM organization distributed through its members, newly acquired silicone `bracelets bearing the message “Only Rain in the Storm Drain”. The bracelets are a hit with the school age children and help to send a message regarding keeping stormwater unpolluted. STORM purchased 5000 bracelets during FY2008.

4. Magnets from an earlier order and depicting a storm drain marker template along with STORM’s logo, STORM’s slogan “Only Rain in the Storm Drain,” and STORM’s web site address were distributed to members. Most of the remaining supply of these items was distributed to the public during FY08.

STORM created a Unified Outreach Reporting form to be used by members to document when and where promotional items are distributed as well as the quantity distributed. This will allow STORM to more accurately determine the audience distribution, size, and impact to the audience where STORM promotional items are distributed. Members were asked to complete and submit these forms (after the fact) for this fiscal year report. Copies of this form are provided in Attachment D.

Public Service Announcements (PSAs)

STORM’s FY 2008 radio campaign began in July 3rd of 2007 with the broadcasting of PSAs in English and Spanish aimed at ages 12+ in the region.

Also during July of 2007 members of the organization participated in a series of radio interviews. Each interview resulted in an airing of about thirty minutes in length. The

subject content of the interviews dealt with what local citizens could do to help reduce stormwater pollution. These broadcasts reached a reported 1.8 million local residents.

In FY 2008, a public service new PSA was developed emphasizing reduction of animal wastes to stormwater retention basins. The "You wouldn't let your children play in the toilet bowl would you?" PSA aired on radio in FY 2008. It played at half-time and after the broadcast of the Super Bowl football game held in Glendale, Arizona. A text copy of that PSA can be read in Attachment "C". Again radio station circulation counts indicate that more than 1.8 million local residents heard this message.

STORM's PSAs are typically scheduled to air during the monsoon season in the Arizona summer months and again during the winter and spring rain periods.

Mike Loffa of the City of Phoenix and Stan Snitzer of Maricopa County at KHOT, KOOL, KMLE studios

For FY2008 STORM expended $47,942 for its local public education and information radio campaign.

Shared Resources

Benefits of this collaborative and clearly focused effort include shared resources. Such resources include the following:

- City of Chandler's and Maricopa County's Water Runoff Models: The City of Chandler and Maricopa County has offered STORM members the use of this model for demonstrating how to prevent pollutants from entering the stormwater system.
- City of Phoenix's Storm Drain Marker Template: The City of Phoenix had previously developed a template of a storm drain marker created for use on their catch basins and has shared this template with STORM members, minimizing the cost of producing these markers to other members. During FY 2007, Phoenix re-established a contract with a local foundry to produce these markers and all members were invited to utilize the negotiated pricing structure.
- Fountain Hills had previously developed a template for wrist bands embossed with STORM's slogan "Only Rain in the Storm Drain" and was made available to members without having to endure the cost of the original casting price. STORM member municipality, Fountain Hills re-established a contract with a local distributor. STORM ordered additional bracelets from the company so that bracelets were available during FY2008.
- During the year, members of STORM initiated a concept for a new tri-fold color brochure. The brochure is intended for the general public and contains tips on how to help reduce stormwater pollution. As the year ended the STORM

membership was very close to finalizing the layout. Printing is expected during early FY2009.

- Training Program: Prior to FY08 STORM members began the development of PowerPoint presentations that could be utilized by each member to satisfy the training requirements detailed in the ADEQ permit. This benefits STORM members in that each community would not have to create such a program independently and also would provide a consistent message to the target audiences. The target audiences of the training program are municipal inspectors, municipal employees, and developers. During FY 2008, the organization laid plans for expenditure of funds for the FY09 budget to include expenditure for establishing a special training session for the targeted audience. The organization is also researching other possibilities from outside sources.
- City of Phoenix Storm Drain Study: Phoenix conducts an annual poll of Valley residents to assess residents' knowledge of storm drain pollution. This study, and the potential to add specific questions, assists STORM in targeting particular audiences or determining success in outreach efforts.
- Storm Drain Dan Comic Books – Phoenix previously developed three comic books related to preventing stormwater pollution. These posted on STORM's website and are available for production to STORM members.
- Vendor Information: Stormwater product vendors may present a 30 to 60 minute informational session to the STORM members. This allows members with product knowledge to share their experiences with members that may be interested in a particular product. During FY 2008, several vendors gave product presentations to STORM.
- Working Groups: STORM members developed a working group to share information and discuss ideas in response to ADEQ's review and comments on Phase II permits this fiscal year.

Awards and Recognition

STORM is the first regional stormwater public education and outreach organization in Arizona. The collaborative, voluntary, and highly organized approach to disseminating information and resources to residents throughout the greater Phoenix metropolitan area has provided a distinctive and effective means to reduce stormwater pollution while maximizing the benefit of shared resources.

Previously, STORM had been nominated for the following awards/recognition:

- Valley Forward' Environmental Excellence Award in the category of Environmental Education/Communication - Public Sector. This award recognizes outstanding contributions to the sustainability of the Valley communities.
- Maricopa Association of Governments' Desert Peak Award. An award that recognizes people, projects, and partnerships that have demonstrated a commitment to regionalism.

During FY 2008, STORM was not nominated for any external awards or recognition, but internally recognizes the effort put forward by the organization's board members and other members that perform services to STORM above and beyond normal levels of participation.

Attachment A - FY 2008 Financial Summary

Beginning Balance	$70,573.69

Membership Fees received in FY2008 for:	FY2008	FY2009
ADOT[2]		
Apache Junction[2]		
Avondale	$ 1,500.00	
Chandler[2]		
El Mirage	$ 1,000.00	
Fountain Hills[2]		
Gilbert	$ 2,500.00	
Glendale[3]	$ 5,000.00	$ 5,000.00
Goodyear	$ 1,000.00	
Guadalupe	$ 1,000.00	
Luke AFB	$ 1,000.00	
Litchfield Park	$ 1,000.00	
Maricopa County	$ 2,500.00	
Maricopa County Flood Control District [1]		$ 1,000.00
Mesa	$ 5,000.00	
Paradise Valley	$ 1,000.00	
Peoria	$ 2,500.00	
Phoenix	$ 5,000.00	
Salt River Maricopa Indian Community	$ 2,000.00	
Scottsdale[2]		
Surprise		$ 2,000.00
Tempe	$ 2,500.00	
Tolleson	$ 1,000.00	
Subtotal	$ 35,500.00	$ 8,000.00
Total		$ 43,500.00

Notes:
(1) Affiliate member
(2) Dues for FY 2008 paid during FY 2007
(3) Glendale paid $5,000 additional in error, which will be refunded FY 2009

Other Income	
STORM Funds Transfer from Maricopa County (Membership fees held by County)	$ -
Donations	$ 346.67

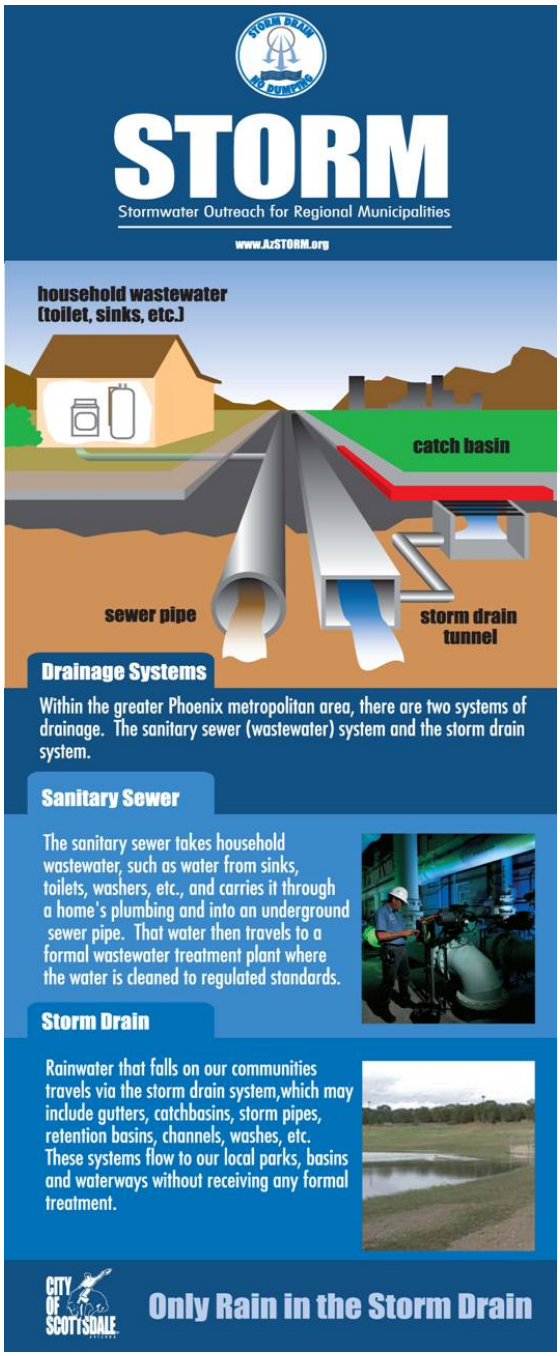
Total	$	346.67

Expenses		
Administrative	$	10,812.48
Website Hosting Fee (FY 2005-07)	$	745.05
Promotional / Educational Items	$	20,630.92
PSA (Radio advertising) Campaign	$	47,942.34
Total	$	80,130.79

Ending Balance	$	34,289.57

Attachment B - Banners and other promotional items

Example of STORM Banner



Example of Promotional Item - Magnet

Attachment C – PSA for FY08 Regarding Reduction of Pet Waste in Stormwater

"You don't let your kids play in the toilet. That's what it is like when pet owner's don't pick up pet waste. Irrigation water and stormwater can carry this pollution to the storm drain and retention areas where our children play. Do the right thing, for yourself and your community, pick up after your pet. Bag it and properly dispose of it in the trash. Only rain in the storm drain. STORM, Stormwater Outreach for Regional Municipalities, www.azstorm.org"

Attachment D – Unified Outreach Reporting Forms for FY2008

(Begin on following page)

PUBLIC EVENT CHECKLIST - STORMWATER

Maricopa County Department Identification:

Contact: Sharon Bohm, et al	Dept: Environmental Services
Address: 1001 N. Central Phoenix, AZ	Phone: 602-506-0386

Event information:

Contact: Green Building EXPO	Location: Scottsdale Civic Center
Date(s): 10/5-10/6	Time: 11-6
Reason: □ Public Education Requirement □ Public Participation Requirement □ Other	
Description of Event:	
The Green Building Expo was designed to promote awareness with the public among using more environmentally friendly materials in design, construction and other aspects of commercial and residential building.	
Total # of Attendance @ event: aprox. 10,000 was projected to attend.	
Total # of people with direct discussion about Stormwater: <1000	

STORM handout information:

Type and # of Brochures used:	Type and # Handouts used:
After the Flood approx. 1600 Solution to the Pollution approx. 1600	Approx. 3 boxes of the refrigerator magnets were used.
Displays utilized:	Other Stormwater information utilized:
AZStorm banner	Graywater and printouts of information for the AZ Storm web site

PUBLIC EVENT CHECKLIST - STORMWATER

Maricopa County Department Identification:

Contact: Sharon Bohm	Dept: Environmental Services
Address: 1001 N. Central	Phone: 602-506-0386

Event information:

Contact: Earthfest/ Valley Forward	Location: Phoenix Zoo
Date(s): 10/17/2007	Time: 4-7 p.m.
Reason: □ Public Education Requirement □ Public Participation Requirement □ Other	
Description of Event:	
Earthfest is a show designed for K-12 educators to share environmental-related information and curriculum materials for their classrooms.	
Total # of Attendance @ event:	
Total # of people with direct discussion about Stormwater:	

STORM handout information:

Type and # of Brochures used:	Type and # Handouts used:
After the Flood/Pollution Solution	About 200
Displays utilized:	Other Stormwater information utilized:
	Magnet clips

PUBLIC EVENT CHECKLIST - STORMWATER

Maricopa County Department Identification:

Contact: Sharon Bohm	Dept: Environmental Services
Address: 1001 N. Central	Phone: 602-506-0386

Event information:

Contact: Environmental Expo-Bank of America	Location: Bank of America- Buckeye Campus
Date(s): 10/23/2007	Time: 10:00 a.m.- 2 p.m.
Reason: □ Public Education Requirement □ Public Participation Requirement □ Other	
Description of Event:	
Environmental Expo was for Bank of America employees to make them more aware of environmental issues.	
Total # of Attendance @ event:approx. 300-400	
Total # of people with direct discussion about Stormwater: Approx 100-200	

STORM handout information:

Type and # of Brochures used:	Type and # Handouts used:
After the Flood/Pollution Solution	About 200-300
Displays utilized:	Other Stormwater information utilized:
	Magnet clips, refrigerator magnets

PUBLIC EVENT CHECKLIST

www.azstorm.org

Member Identification:

Name:	City of Chandler	☐	Phase I MS4	☐ Affiliate
Contact:	Dave Verhelst	☒	Phase II MS4	☐ Sponsor
Phone:	480-782-3503	☐	Other	
Address:	975 East Armstrong Way, Bldg C Chandler, Az 85286			

Event information:

Name:	City of Chandler Citizen's Academy	Location:	Streets Division Building
Date(s):	11/6/07	Time:	6:00 PM to 8:30 PM

Reason:

☒ Public Education Requirement ☐ Other

☒ Public Participation Requirement

Event Description:	The City hosts a 13 week academy for residents to particpate in and gain a better understanding and awareness of City programs and services.

Total # of Attendance @ event: 21

Total # of people with direct discussion about STORM: 13

STORM handout information:

Type and # of Brochures used:	None
Type and # of Handouts used:	None
Type and # of Displays utilized:	Two STORM banners were utilized
Other STORM information utilized:	None

PUBLIC EVENT CHECKLIST

www.azstorm.org

Member Identification:

Name:	City of Chandler	☐	Phase I MS4	☐ Affiliate
Contact:	Dave Verhelst	☒	Phase II MS4	☐ Sponsor
Phone:	480-782-3503	☐	Other	
Address:	975 East Armstrong Way, Bldg C Chandler, Az 85286			

Event information:

Name:	Hamilton Invitational Science And Engineering Fair	Location:	Hamilton High School
Date(s):	2/23/08	Time:	11:00 AM to 3:00 PM

Reason:

☒ Public Education Requirement ☐ Other

☐ Public Participation Requirement

Event Description:	The event hosts outstanding science research projects for grades 5-12, with approximately 1500 participants from Chandler Unified Schools.

Total # of Attendance @ event: ~ 4,000

Total # of people with direct discussion about STORM: 125

STORM handout information:

Type and # of Brochures used:	None
Type and # of Handouts used:	None
Type and # of Displays utilized:	Two STORM banners were utilized
Other STORM information utilized:	None

PUBLIC EVENT CHECKLIST

www.azstorm.org

Member Identification:

Name:	City Of Surprise	☐	Phase I MS4	☐	Affiliate
Contact:	Stephanie Pezzelle	☒	Phase II MS4	☐	Sponsor
Phone:	623.222.7030	☐	Other		
Address:	12425 West Bell Road Suite D-100				

Event information:

Name:	Bring Your Dog To The Ball Park	Location:	Surpirse Stadium
Date(s):	March 1, 2008	Time:	11-2

Reason:

☒ Public Education Requirement ☐ Other

☐ Public Participation Requirement

Event Description:	The General public is given the option to bring their dog to the ballpark to enjoy a spring training game with their pet. 45 participants were registered to bring their pets to the ballpark and were handed the bags on board with the storm logo to attach to their pets leashes…

Total # of Attendance @ event: approx. 450

Total # of people with direct discussion about STORM: 45

STORM handout information:

Type and # of Brochures used:	0
Type and # of Handouts used:	75 Bags on Board were handed out to those who brought their dogs and others interested in obtaining the product.
Type and # of Displays utilized:	0
Other STORM information utilized:	0

PUBLIC EVENT CHECKLIST

www.azstorm.org

Member Identification:

Name:	City Of Mesa	☒ Phase I MS4	☐ Affiliate
Contact:	John Meyer	☐ Phase II MS4	☐ Sponsor
Phone:	480-644-6967	☐ Other	
Address:	P.O. Box 1466, Mesa Az 85211-1466		

Event information:

Name:	City Hall At The Mall	Location:	Fiesta Mall
Date(s):	03/12/08	Time:	10 a.m. to 3 p.m.

Reason:

☒ Public Education Requirement ☐ Other

☒ Public Participation Requirement

Event Description:	Discuss stormwater issues with genral public. Distribute eduational materials. Provide games with stormwater questions.
Total # of Attendance @ event:	Unknown
Total # of people with direct discussion about STORM:	Approx. 500

STORM handout information:

Type and # of Brochures used:	None
Type and # of Handouts used:	Bracelets (appr. 125); Magnets (appr. 50), Bags on Board (60)
Type and # of Displays utilized:	Both STORM Displays
Other STORM information utilized:	EPA Stormwater Handouts

PUBLIC EVENT CHECKLIST

www.azstorm.org

Member Identification:

Name:	City Of Mesa	☒ Phase I MS4	☐ Affiliate
Contact:	John Meyer	☐ Phase II MS4	☐ Sponsor
Phone:	480-644-6967	☐ Other	
Address:	P.O. Box 1466, Mesa Az 85211-1466		

Event information:

Name:	Earth Day	Location:	City Plaza
Date(s):	03/23/08	Time:	10 a.m. to 1 p.m.

Reason:

☒ Public Education Requirement ☒ Other

☒ Public Participation Requirement

Event Description:	Discuss stormwater issues with genral public. Distribute eduational materials. Provide information to City employees.
Total # of Attendance @ event:	Approx. 50
Total # of people with direct discussion about STORM:	Approx. 50

STORM handout information:

Type and # of Brochures used:	None
Type and # of Handouts used:	Bracelets (appr. 15); Bags on Board (15)
Type and # of Displays utilized:	Both STORM Displays
Other STORM information utilized:	None

PUBLIC EVENT CHECKLIST

www.azstorm.org

Member Identification:

Name:	City of Chandler	☐	Phase I MS4	☐ Affiliate
Contact:	Dave Verhelst	☒	Phase II MS4	☐ Sponsor
Phone:	480-782-3503	☐	Other	
Address:	975 East Armstrong Way, Bldg C Chandler, Az 85286			

Event information:

Name:	CoC Env. Education Center Grand Opening	Location:	Veteran's Oasis Park - Env. Education Center
Date(s):	4/19/08	Time:	8:00 AM to 12:30 PM

Reason:

☒ Public Education Requirement ☐ Other

☐ Public Participation Requirement

Event Description: Grand Opening of City Environmental Education Center providing awareness of City environmental programs.

Total # of Attendance @ event: 300+

Total # of people with direct discussion about STORM: 50

STORM handout information:

Type and # of Brochures used:	None
Type and # of Handouts used:	None
Type and # of Displays utilized:	Two STORM banners were utilized
Other STORM information utilized:	None

PUBLIC EVENT CHECKLIST

www.azstorm.org

Member Identification:

Name:	Salt River Pima-Maricopa Indian Community	☐ Phase I MS4	☐ Affiliate
Contact:	Kari Morehouse	☒ Phase II MS4	☐ Sponsor
Phone:	480-362-7634	☐ Other	
Address:	10005 E. Osborn Rd., Scottsdale, Az 85256		

Event information:

Name:	Earth Day	Location:	10005 E. Osborn Rd.
Date(s):	April 26, 2008	Time:	10am - 2pm

Reason:

☒ Public Education Requirement ☐ Other

☐ Public Participation Requirement

Event Description:	This is the annual SRPMIC Earth Day celebration. A "Team Up and Clean Up" Challenge and an environmental fair take place during the event. STORM participated in the environmental fair and had a booth at this year's event.
Total # of Attendance @ event:	650
Total # of people with direct discussion about STORM:	Enter # of Contacts

STORM handout information:

Type and # of Brochures used:	None.
Type and # of Handouts used:	None.
Type and # of Displays utilized:	Banners (2)
Other STORM information utilized:	Magnets and clips (outreach/promotional item)

PUBLIC EVENT CHECKLIST

www.azstorm.org

Member Identification:

Name:	City Of Glendale	☒ Phase I MS4	☐ Affiliate	
Contact:	Michelle Wilson	☐ Phase II MS4	☐ Sponsor	
Phone:	623-930-2583	☐ Other		
Address:	5850 W. Glendale Ave., Glendale, Az 85301			

Event information:

Name:	Glendale Garden Festival	Location:	Glendale Main Library
Date(s):	May 3, 2008	Time:	8:00 a.m. - 5:00 p.m.

Reason:

☒ Public Education Requirement ☐ Other

☒ Public Participation Requirement

Event Description:	The event focused on water conservation through interactive garden art activities, go green information booths, expert training regarding tree care, low-water use gardening, water harvesting, and more. A stormwater information booth was set up for interested parties.

Total # of Attendance @ event: 600

Total # of people with direct discussion about STORM: 480

STORM handout information:

Type and # of Brochures used:	Water conservation brochures.
Type and # of Handouts used:	Stormwater information magnets and bracelets distributed.
Type and # of Displays utilized:	Banners and table set up.
Other STORM information utilized:	

PUBLIC EVENT CHECKLIST

www.azstorm.org

Member Identification:

Name:	Town Of Fountain Hills	☐ Phase I MS4	☐ Affiliate
Contact:	Raymond Rees	☒ Phase II MS4	☐ Sponsor
Phone:	480 816-5143r	☐ Other	
Address:	16705 E. Avenue Of The Fountains, Fountain Hills, Arizona, 85268		

Event information:

Name:	Neighborhoods Arizona Conference	Location:	Chandler
Date(s):	May 17, 2008	Time:	8:00am to 3:00 pm

Reason:

☐ Public Education Requirement ☒ Other

☐ Public Participation Requirement

Event Description:	Conference for Cities and Towns to review with Neighborhoods and HOA's stormwater, code enforcement, green neighborhood concepts.
Total # of Attendance @ event:	200
Total # of people with direct discussion about STORM:	60

STORM handout information:

Type and # of Brochures used:	25 After the Storm, Book markers, West Nile Virus.
Type and # of Handouts used:	25 braclets, magnets, clips.
Type and # of Displays utilized:	Table Top Exhibit
Other STORM information utilized:	

Appendix G: PAG Report

Stormwater Outreach Summary 2008

Pima Association of Governments (PAG) conducts an annual stormwater outreach campaign every year. This program was first launched in 1997 and was revamped in 2003. The primary goal of this program was to help meet PAG's member jurisdictions their stormwater permit requirements as deemed necessary by the Arizona Pollution Discharge Elimination Permit (AZPDES). The stormwater program is managed and supervised by the Stormwater Management Working Group (SWMWG), which consists of representations from PAG's member jurisdictions, Arizona Department of Environmental Quality (ADEQ), Arizona Department of Transportation (ADOT), University of Arizona, local construction industry and Davis Monthan AFB. Funding for the SWMWG and the stormwater outreach activities is provided through PAG's Overall Work Program (OWP), at a level of $22,800 during fiscal year 2003-2004, $48,000 in fiscal year 2004-2005 and $40,000 in fiscal year 2005-2006, $40,000 in fiscal year 2006-2007 $40,000 and in fiscal year 2007-2008 $60,000.

Stormwater outreach activities are conducted during the summer months which coincide with the monsoon season, when most of the storm events occur in Tucson.
Annual stormwater outreach activities consists of two sets of outreach 1) Stormwater Construction Seminar, which targets the local construction industry, and 2) Stormwater outreach campaign, which targets citizens of the Tucson region.

Stormwater Outreach Activities 2008

The initiative and planning for the 2008 stormwater outreach campaign began in October 2007. Following the October 2007 SWMWG meeting, a wide range of new outreach ideas were explored. Based on the stormwater survey conducted in September 2007, it was decided by the SWMWG that a fresh and functional outreach slogan and approach needed to be developed for 2008. February 2008 onwards, the SWMWG met on a monthly basis till June 2008 to organize a successful stormwater outreach campaign and stormwater construction seminar.

Stormwater Construction Seminar 2008

The stormwater construction seminar is held as a part of the stormwater outreach, to increase awareness among people who work within the construction industry. This seminar covers a wide range of topics such as stormwater permits, stormwater pollution prevention plans (SWPPP), best management practices (BMPs), and others issues that are relevant to the construction industry. In 2008, the Stormwater Construction Seminar was held on May 20. The seminar date and venue were announced in advance to encourage early registration.

More than 100 people attended the seminar which was held at the Joel D. Valdez Main Library in downtown Tucson. Several PAG staff and SWMWG members provided volunteer support for the seminar. Approximately 140 construction seminar books were distributed during the seminar. Binders for the books were provided by the Town of Marana and materials for the book was provided by PAG's other member jurisdictions, ADEQ and ADOT. The seminar included four presentations made by ADEQ, Pima County, City of Tucson and Town of Oro Valley and a panel discussion at the end. From the survey conducted during the seminar, it was evident that almost everyone thought the seminar was very useful.

Stormwater Outreach Campaign 2008

Stormwater outreach campaign in 2008 was developed by PAG in coordination with the SWMWG. The primary goal for the 2008 stormwater campaign was to develop a new message and artwork that was easier for the public to understand. The SWMWG came up with a new slogan "Clean Water Starts With Me" for the 2008 campaign. Relevant artwork was developed by PAG staff to match the new slogan.

A new Public Service Announcement (PSA) was produced in coordination with television channel KVOA-4, for the campaign. The PSA emphasized and elaborated the idea of "Clean Water Starts With Me". Relevant visuals and highlighted script in the PSA explained the importance of protecting stormwater in our fragile desert environment by cleaning up after pets, fixing leaky vehicles and disposing trash properly. The PSA was played on KVOA-4 starting from August 2008 till September 2008.

The new slogan and artwork were also displayed on billboards (July-August 2008), bus shelters (July-August 2008), and Foothills Mall movie theater (July-September 2008), the PAG webpage and the KVOA webpage. Brochures and posters with the message "Prevent Stormwater Pollution" were distributed in the Pima County Libraries. Also "Prevent Stormwater Pollution" posters were displayed in Sun Tran Bus interiors during the outreach period (July and August 2008). Table 1 provides a cost break-down for the 2008 Stormwater Outreach and Stormwater Construction Seminar.

Stormwater Outreach Campaign 2008

Outreach Activity	Amount in $	Viewership
7 Bilboards (July and August 2008)	$1,500 (FY 2007-2008)	500,000 possible viewers
11 Bus Shelters (July and August 2008)	$8,125 (FY 2008-2009)	200,000 possible viewers
PSA Airing in KVOA-4 (July-September 2008)	$16,525 (FY 2007-2008, and FY 2008-2009)	94 percent of the households in Tucson

Movie Theater (Foothills Mall)	$1,931 (FY 2007-2008)	18,000 people per week.
Posters and Brochures	Paid in FY 2003-2004	
Sun Tran Bus Interiors	Paid in FY 2006-2007	45,000 passengers per day
Amount Spent in FY 2007-2008 and FY 2008-2009	$ 42,675	

Assessment of 2008 Stormwater Outreach Campaign

PAG is in the process of developing and sending out paper surveys to selected Tucson neighborhoods. The survey results will help to assess the success of the stormwater outreach campaign in 2008. So far, PAG's stormwater webpage has received 1,510 hits since the beginning of the outreach campaign on June 30, 2008. The number of hits received so far is 15 times more than the previous year. This increase in hits indicates the success of the campaign. Also, numerous people have informed us that they saw the outreach this summer.