ARIZONA DEPARTMENT OF TRANSPORTATION
STORMWATER MANAGEMENT PLAN
2006 Annual Report
MS4 Permit #AZS000018

Prepared for:

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

September 2006

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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 2006 Stormwater Management Plan (SWMP) Annual Report describing the activities and programs implemented by ADOT from July 1, 2005 through June 30, 2006, as part of its Municipal Storm Sewer System (MS4) Phase I Permit. This annual report is prepared pursuant to the requirements of the Arizona Pollutant Discharge Elimination System (AZPDES) Permit Number AZS000018. This permit expired on August 31, 2002 but has been administratively continued by the Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality (ADEQ). A copy of the permit has been provided in Appendix A of this annual report.

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, (9) Statewide Permit Application, (10) Stormwater Advisory Teams, (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, 2006

AZPDES Permit Holder: Arizona Department of Transportation

Period Covered by This Report: July 1, 2005 through June 30, 2006

AZPDES Permit Number: AZS000018

Person to contact concerning information contained in the report:

Bob Gustafson
Arizona Department of Transportation
State Engineer's Office
206 South 17th Avenue, MD 102A
Phoenix, Arizona 85007
602.712.7540

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 27, 2006
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.

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 and Tucson 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.

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 to leave them in place so materials can be tested. Staff members are instructed to contact the ADOT HazMat office. ADOT maintains a contract with a hazardous materials handler to test and properly dispose of such materials. Wastes determined to be hazardous are properly disposed of 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. The program includes both volunteers and sponsors. The volunteer program allows organizations to adopt designated sections of highway for

which they are responsible to pick up litter at least three times a year. The sponsor program requires 26 pick-ups per year, or as determined by the engineering 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 111,632 bags of litter during Fiscal Year 2005/2006. This litter was removed by three paid litter removal contractors, three AAH sponsor contractors, and two prison crews from Perryville Prison. There were 191 miles adopted by sponsors and 121 miles adopted by volunteers within the Phoenix area.
- The Tucson District AAH removed 6,077 bags of litter during Fiscal Year 2005/2006. A total of 107 miles were serviced. This is an increase from 2,800 bags from the previous year. The marked increase is due to litter pickup occurring on a quarterly schedule rather a bi-yearly schedule.

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. One tunnel is currently being dewatered, a second tunnel has been partially inspected due to mechanical failure, and the third tunnel was not inspected due to construction of the Rio Salado Project.

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 District Maintenance Organizations. There has been no serious or unusual clogging of storm sewer inlets or catch basins during the past year.

The ADOT Tucson District inspects all of its storm sewer inlets and catch basins on a yearly basis. There has been no serious or unusual clogging of storm sewer inlets or catch basins 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. Within the past year, there has been no unusual clogging reported.

The Tucson District conducts open channel inspections yearly. Tucson also maintains an on-call clean-out service. There is no unusual clogging or cleaning to report for 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. There has been no serious clogging or maintenance to report for culverts within the Tucson area.

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. 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 (encroachment) 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 that they have not issued any connection permits during the fiscal year 2005/2006.

1.3.2 Inspection – Phoenix and Tucson

Inspections for illicit discharges to ADOT's storm sewer system within the Phoenix and Tucson Districts have occurred 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

A sanitary sewer overflow occurred on the evening of September 11th through the morning of the 12th, 2005, near the intersection of State Routes 101 and 202 in Chandler, Arizona. Approximately 720,000 gallons of untreated wastewater were released from a City of Chandler sanitary sewer system. Approximately 477,000 gallons of the total amount went immediately into a west-flowing ADOT storm drain that feeds the South East Valley Regional Drainage System (SEVRDS).

The ADOT storm drain that received the wastewater contains a pump/wet well that is designed to engage when the volume of stormwater in the drain exceeds a predetermined level and to disengage once the volume of stormwater drops below this level. The pump transferred approximately 337,000 gallons of the untreated sewage into the SEVRDS and from there to a series of four stormwater retention basins located on the southwest corner of Kyrene Road and State Route 202. The basins were designed to function as artificial wetlands and are known to support waterfowl.

ADOT coordinated with the City of Chandler for removal of the sewage and decontamination of the release area and pump/wet well. Chandler decontaminated the sidewalk and soil at the 101 and 202 interchange and flushed the storm drain as far as the pump station with super chlorinated rinse water capable of killing fecal coliform that may have remained after the ADOT pump turned off. Chandler also removed approximately 140,000 gallons of residual wastewater from the pump/wet well as part of the decontamination process.

Five sampling events were performed from September 12, 2005 through November 9, 2005 to evaluate the potential impact of the sewage release on the retention basins. It was concluded that while the sewage spill may have impacted the water quality at the retention basins, exceedance of the Water Quality Standard for fecal coliform appears to have been limited to Basins 2 and 3. As of the November 9, 2005 sampling event, the effect of the spill on Basin 4 appears to be minimal and the concentrations of fecal coliform have decreased in all the other basins since the first sampling event. EEC also performed a biological review of potential impact to the waterfowl located within the retention basin as a result of the sewage spill. EEC concluded that no observable biological impact had occurred to waterfowl at the retention basins.

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 including spills of hazardous material. The ALERT members are on-call 24 hours a day, 7 days a week. Their duty in the event of a hazardous material spill is to contain the spill, manage traffic problems, and manage the spill clean-up.

ADOT has prepared an ALERT Manual designating individual responsibilities and lists key emergency personnel within ADOT and local communities. The Phoenix District Traffic Operation Control Center is manned 24 hours a day, 7 days a week for emergency calls and equipment monitoring. Eight employees of the District ALERT Team are on call 24 hours a day, 7 days a week to respond to emergencies.

ADOT has recently adopted a Call Back policy 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, 520-628-5033) who responds to emergencies for all districts.

The Tucson District has three 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 the Department of Public Safety (DPS, 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 the event of an accidental spill, the 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. Take care of traffic problems
4. Manage the cleanup of the hazardous materials.

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.

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 grasses. The annual weeds provide little if any erosion control since they do not have extensive root systems and since 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 one maintenance yard 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) best management practices (BMPs) identification, (7) implementation, and (8) worksheets for documenting discharges. The SWPPPs are on file at the maintenance yards and are implemented by the pollution prevention team.

Two additional maintenance yards have come into the Phoenix Phase I area due to highway expansion and the extension of ADOT's Phase I boundaries. These two yards are the North Phoenix Maintenance Yard and the Avondale Maintenance Yard. A SWPPP has been developed and implemented at the North Phoenix Maintenance Yard; a SWPPP for the Avondale Maintenance Yard is expected to be completed within the next six months. Additionally, SWPPPs are currently being developed for maintenance yards located within Phase II communities.

2 CONSTRUCTION – STATEWIDE

Except where noted below, the procedures followed for construction projects have not been changed 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 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 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 new Erosion Control Coordinator (ECC) certification training recently implemented for contractor personnel. The Contractor's ECC is responsible for preparation 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 sessions for AZPDES requirements are being developed and will be proposed to management 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 exceeds one acre of disturbance and is incorporated into the construction plans and specifications. In January 2006, ADOT issued a construction SWPPP template to be used on all construction projects. The template includes a revised construction inspection log that replaces the inspection checklist currently located in the ADOT *Erosion and Pollution Control Manual*. The SWPPP template has been circulated to stakeholders, and ADOT intends to update the SWPPP template in the first quarter of 2007 based on comments received from stakeholders. The template is also available on ADOT's website.

2.4 Procedures Following Award of Contract

2.4.1 Critique Erosion Control Plan

After the award of the construction contract, the resident engineers attend the partnering session or pre-construction meeting and go over 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

Any changes as a result of the discussion at the above meeting are incorporated into the SWPPP. The resident engineer keeps the original and a copy remains with the contractor on the job site.

2.4.3 *Certification of SWPPP*

The ADOT resident engineer signs the SWPPP and the local municipality also signs in the case of a project with local government participation.

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 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 erosion control coordinator 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. Information on inspections is being complied in a database by the Construction Group to pinpoint problem areas. Checklists utilized by contractors and resident engineers are provided on ADOT's website.

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 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

All 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 are not covered by the ADEQ general permit for construction sites. ADEQ considers these facilities to be industrial activities requiring separate coverage under ADEQ's Multi Sector General Permit (MSGP) for industrial activities. This is true in all cases, including those 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 AZPDES permit for industrial activities. ADOT cannot file the documents because ADOT does not own and operate the plants.

2.9.2 ADOT Materials Sources

As is the case with asphalt and concrete plants, materials sources are not covered by ADEQ's general permit for construction sites. The ADEQ considers these facilities to be an industrial activity, which requires separate coverage under ADEQ's MSGP for industrial activities.

In the case of commercial materials sources or contractor-owned sources, the owner and/or operator are required 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 or modifying it for the contractor's use (much like permit coverage for construction sites). 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

Except as noted, the design procedures described below have not been changed 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

Currently, 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. Additionally, Roadway Design has 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).

4 TRANSPORTATION CONTROL MEASURES

Except as noted below, 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

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 Traffic Operation Control Center. 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 is currently being conducted at one site within the Phoenix area and one site within the Tucson area. The data collected is used to monitor BMP effectiveness and adjust those BMPs as-needed. The stormwater monitoring locations for the Phoenix and Tucson area are identified below along with dates that monitoring was conducted:

- Phoenix area - retention basin located at the northeast corner of 32nd Street and Loop 202. Monitoring was conducted from storm events on March 11, 2006 and

September 5, 2006. The monitoring results from the September 5, 2006 event are still pending as of the date of this report.

- Tucson area – Interstate 10 and Grant Road along the southside of the freeway within the ADOT Grant Rd. Maintenance Yard. Monitoring was conducted from storm events on March 20, 2006 and June 7, 2006.

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.

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 2005-2006 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 this reporting period are provided in Appendix C and photos the screening 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. An updated 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:

- 10-130.2 located on the west bank of the Aqua Fria River under Van Buren Street
- 87-178.55 located southeast of SR-87 and north of McDowell Road

- 101-14.38 located on the east bank of the Aqua Fria River, south of Bell Road

Inspections at these outfalls were conducted at least 72 hours after a storm event and may be the reason for some flow at the outfalls. No odor, surface sheen, surface scum or other indications of contaminants were visually present and therefore the samples of the flow were not collected.

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 trained and equipped to deal with any type of materials. It is standard operating procedure for ADOT staff who come upon any substance or unidentified items on the roadway to call the HazMat unit. Likewise, if there are any spills at the maintenance yards, staff is to call the HazMat unit 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 emergency 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*

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

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.

Additionally, ADOT has joined 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. ADOT has 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. More recently, ADOT has held meetings with the City of Flagstaff and Northern Arizona University concerning potential stormwater public education and outreach.

8 OFFICE OF ENVIRONMENTAL SERVICES

ADOT appointed Todd Williams as Director of the newly created Office of Environmental Services (OES) effective March 25, 2006. Mr. Williams will be 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 OES is currently interviewing candidates for 3 positions that will assist Mr. Williams in oversight of the program. Additionally, ADOT is seeking to place an environmental specialist in each of its 9 districts. This person will assist each district with various environmental issues and coordinate their efforts through the OES.

9 STATEWIDE PERMIT APPLICATION

ADOT submitted a Statewide Stormwater Permit Application to ADEQ on March 1, 2005 in response to a consent order it entered into with the ADEQ. In developing the permit application, ADOT considered all activities that are likely to occur between March 2005 and March 2008. The application included general information, as well as information concerning non-stormwater discharges, municipal discharges, industrial discharges, and construction projects. ADOT has complied with all terms of the consent order and submitted a request for dismissal to ADEQ in May 2006. No response has been received to date from the ADEQ.

10 STORMWATER ADVISORY TEAMS

ADOT formed Stormwater Adisory Teams (SWATs) to assist in implementing the Statewide Permit Application. 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 outlines each SWAT, some of their goals and accomplishments.

10.1 Construction SWAT

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

Goal: Submit the 5-Year Plan and map for projects located within ¼ mile of ADEQ-designated unique and impaired waters.

- Maps prepared by the Information Management SWAT
- Submitted annually to ADEQ in July, starting in 2004

Goal: Develop a Construction Monitoring Guidance Manual

- Monitoring Subcommittee established in April 2004
- Proposal submitted to ADEQ in June 2004
- Negotiations with ADEQ conclude August 2004
- Manual submitted to ADEQ with individual permit application – February 1, 2005
- Manual has been revised and was resubmitted to ADEQ on August 23, 2006

Goal: Develop certification procedures for the contractor's Erosion Control Coordinator

- Negotiated with stakeholders
- Implemented by Specifications 104SWDEQ and 104SWDSP
- ECC training conducted by AGC contractor started April 2005
- AGC and ECC trainees requested Construction SWPPP template
- Construction SWPPP template started May 2005 and completed for field use January 2006

Goal: Identify construction project non-stormwater discharges with accompanying BMPs

- Non-stormwater discharges identified and described in SWMP – February 2005
- BMPs included in *Erosion and Pollution Control Manual* – January 2005
- Awaiting ADEQ Guidance via Individual Permit

Goal: Implement Final Stabilization Policy

- Policy published in *Erosion and Pollution Control Manual* – January 2005
- NOT Protocols for contractors completed – June 2006
- Interim BMP Maintenance Job Order Contract under development

Goal: Develop compliance checklists.

- Two Construction Inspection Checklists completed and published for statewide use: *Stormwater: Administrative Checklist* and *Stormwater Erosion/Sediment Control.*
- Draft *Stormwater Monitoring* checklist developed, but will not be published until the training is available
- Inspector training initiated June 2005; 20+ training sessions conducted in all districts; Inspections are underway and performance data is being generated

Goal: Develop a coordination protocol for the outside agencies and/or MS4s

- Coordination with outside parties on development of new specifications, ECC training, periodic briefings, etc.
- Roadside Development working with the BLM and USFS to modify and update the *Guidelines for Highways on BLM and US Forest Lands* to include updated stormwater protection protocols – October 2006

Goal: Update the ADOT *Erosion and Pollution Control Manual*

- *Erosion and Pollution Control Manual* submitted to ADEQ – February 2005
- Preconstruction Activities SWPPP Template created by Logan Simpson Design for Geotechnical and Archaeological Testing
- Brown Bag Training Session on Preconstruction Activities conducted in April 2006

Goal: Draft new special stormwater provisions to incorporate into ADOT contracts.

- New 104 special provisions completed in mid-2005 and sent to FHWA for approval
- All new 104 specifications stored: 104 SWDEQ,104 SWEPA,104 SWDSP805, SEED810, ERCON – December 2005

Goal: Update Construction Manual to reflect all changes and protocols

- Revision started in January 2006 and completed July 2006

10.2 Design SWAT

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

Goal: Development of a Permanent BMP Manual, including User Guidelines and BMP Selection Methodology

- Identified and evaluated potential permanent BMPs for use on ADOT highway projects
- Developed an initial process diagram (flow chart) to serve as the basis of a BMP selection methodology
- Developed procedures/guidelines for determining when and how permanent BMPs should be applied

Goal: Define Options and Recommendations for Discharges from 3rd Parties into ADOT Right-of-Way and/or Stormwater Conveyance System

- Prepared a document describing issues and water quality protection options and recommendations for discharges from third-parties into ADOT stormwater conveyance (right-of-way)

10.3 Encroachment Permits SWAT

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

Goal: Develop a process to include ADOT stormwater program guidance in encroachment permits, JPAs, IGAs and leases. Researched stormwater policies from other jurisdictions.

- Coordination with ADOT Drainage Section and ADOT Right-of-Way Group – May 2005

Goal: Draft ADOT External Parties guidelines

- Draft *Stormwater Requirements for External Parties* sent to ADEQ for comment – February 2006
- *Stormwater Requirements for External Parties* modified to be consistent with Drainage Section Guidelines and Design SWAT BMPs – June 2006
- Completed *Stormwater Requirements for External Parties* – August 2006

Goal: Draft ADOT standard stormwater program enforcement language for use in encroachment permits, JPAs, IGAs, and leases

- Environmental Enforcement Language Completed and added to draft Standard Encroachment Permit – January 2006
- Work started on Implementation Guidelines and Protocols for Permits activities affecting stormwater – February 2006
- Work started on new Encroachment Permits Computer Program and Database – March 2006
- Instructions and Checklist for Standard Encroachment Permit Application – Drafted June 2006
- Completed Statewide Standard Permit Application, Instructions, and Checklist – August 2006 – Publish on District Permits web sites

10.4 Information Management Systems SWAT

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

Goal: Develop recordkeeping and GIS interactive maps for project delivery, maintenance, and industrial facilities, Create GIS interactive maps for all regulated facilities, Create GIS map for ADOT activities and facilities within ¼ mile of unique, impaired, or not attaining waters. Add construction projects on an annual basis in accordance with five-year plan.

- Prepared maps identifying each area of concern

Goal: Assess data management needs by interviewing each functional area to determine types of data being generated and need for shared data between functional areas.

- Met with Materials Group, Statewide Maintenance, and Physical Plant Facilities
- Began developing various data sources
- Initiated concept design for information management system (IMS)
- Continued developing metadata for all data received and created
- Created SWAT Charter: Developed scope, goals, and timeframe for ADOT IMS
- Informed the ADOT Information Management Council (IMC) of the stormwater data collection effort
- Began development of the detailed work plan for stormwater management information to be stored within the AIDW

Goal: Form information management team. Develop management plan for annual and quarterly status reports, project improvement plans, and non-compliance reports

- Identified and evaluated potential permanent BMPs for use on ADOT highway projects

10.5 Maintenance and MS4 SWAT

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

Goal: Develop and implement BMPs for maintenance activities

- *Ad hoc* committee formed in March 2004
- Maintenance practice inventoried May 24, 2004
- Development of BMPs began in July 2004
- Draft BMP Manual completed July 30, 2005

Goal: Inventory types of non-stormwater discharges

- Identified and evaluated potential permanent BMPs for use on ADOT highway projects

Goal: Identify BMPs for structural stormwater controls

- Identified and evaluated potential permanent BMPs for use on ADOT highway projects

Goal: Develop an illicit discharge detection and elimination program and map outfalls

- Phase I (Phoenix and Tucson) outfall mapping started in 2004
- Draft Phase II maps submitted in Application March 2005, July 2005
- Final outfall maps completed in September 2005

Goal: Develop protocols for dry weather discharges

- Identified and evaluated potential permanent BMPs for use on ADOT highway projects

Goal: Conduct wet weather monitoring

- Identified and evaluated potential permanent BMPs for use on ADOT highway projects

Goal: Prepare SWPPP for maintenance yards in Phase I and II communities

- Prepared SWPPPs for the following Phase 1 communities: Grand Avenue Landscape Maintenance Yard, Statewide Striping Facility, Mesa Country Club Maintenance Yard, Mesa Recker Road Maintenance Yard, Durango Maintenance Yard, Broadway Maintenance Yard, Tucson Grant Road Maintenance Yard and the Wickenburg Maintenance Yard
- Prepared SWPPPs for the following Phase II Communities: North Phoenix Maintenance Yard, Avondale Maintenance Yard, Flagstaff Maintenance Yard, Prescott Maintenance Yard, Yuma Maintenance Yard, Douglas Maintenance Yard and Nogales Maintenance Yard
- Conducted site-specific SWPPP training at Grand Avenue Landscape Maintenance Yard, North Phoenix Maintenance Yard, Mesa Recker Road Maintenance Yard and Tucson Grant Road Maintenance Yard

10.6 Materials SWAT

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

Goal: Review of sites to determine compliance or require further action

- Preparation of initial Sector J (mining sites) SWPPPs

Goal: Review of Material Source Tracking Number Inventory

- Over 1300 hours spent identifying actual material source sites from non-material source sites (airport, maintenance yards, scour protection) –Over 200 sites identified as needing further review
- Requests were then sent to Districts asking for identification of material sources that the District has used, currently uses, and/or planned to use in the future *Request to Districts resulted in 54 sites considered to be candidates for further stormwater compliance review.*

Goal: Review of 54 sites that were subject to further review

- Review of information reported by Districts concerning site history, use and proposed future use
- Review of topographic maps to identify location of drainages and potential waters of the U.S. that may be affected by mining activities *This review resulted in 38 of the 54 sites being reported to ADEQ in October 2002 as potentially needing stormwater compliance.* The 54 candidate sites were then subject to further review requiring:
- Nearly 100 sites received individual site inspections between August and December 2005

10.7 Public Education and Outreach SWAT

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

Goal: Develop partnerships and cooperative outreach programs with other regulated entities.

- Briefed members of Maricopa Association of Governments on the ADOT Stormwater program in 2004
- Became active member Stormwater Outreach for Regional Municipalities'(STORM)in 2005
- Became active member of Pima Association of Governments Stormwater Working Group in 2006
- Pursuing cooperative activities in Flagstaff through City of Flagstaff, Flagstaff Clean and Beautiful, and the Flagstaff stormwater management team
- Developing statewide MS4 contact list and ordinance reference

Goal: Develop partnerships and cooperative outreach programs with other regulated entities.

- Integrated stormwater issues into ADOT-BLM-FHWA and ADOT-US Forest Service-FHWA MOUs and Operating Agreements
- Coordinated ADOT/AGC/FHWA joint project on 104.09 specifications and Erosion Control Coordinator Training Program. Continue periodic update briefings for AGC.

Goal: Develop a bilingual program to inform the public about ADOT's stormwater management program and the public's role in stormwater pollutant control.

- Distributed 1,600 bilingual stormwater residential BMP educational tools (*Storm Drain Dan* coloring books) to children in collaboration with the City of Phoenix at the 2004 Arizona State Fair as part of the Governor's Office of Highway Safety/Public Safety days
- Participated as a active member of STORM in 2005 and 2006
- Participated Pitch In, Pitch Out event sponsored by ADOT and Arizona Clean & Beautiful at Diamondbacks game to recognize Adopt a Highway

Goal: Develop Web site to Keep Public Informed about the ADOT Stormwater Program.

- Web page originally created in April 2005. New web pages designed during 4th quarter 2005 to update and make pages more user-friendly

Goal: Develop a procedure for receipt of comments on the ADOT SSWMP and the individual permit.

- Worked with STORM to provide link from their web site to the ADOT stormwater pages
- Contact and email response mechanism added to the web pages in late 2005
- Comments invited from other MS4s, and public participation and involvement

Goal: Develop a stormwater component of the Adopt a Highway Litter initiative. Solicit public involvement.

- Integration of stormwater issues into new Adopt a Highway brochure
- Began electronic AAH newsletter –*Blazing The Trail*
- Working with GIS and the Districts to develop an easily accessible electronic map showing highway segments available for adoption

10.8 Training SWAT

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

Goal: Identify stormwater training requirements for all ADOT employees involved in stormwater management.

- General Stormwater Introductory Training Course developed by GEC/SA&B. Pilot training course delivered June 2006. Will be available online. *Introduction to Stormwater Management* has been scheduled for delivery in all Districts from September through November.

Goal: Create training and certification program for the Contractor's ECC, with assistance from AGC

- First class delivered Spring 2005 – 13 training sessions delivered, 415 people trained, attended by ADOT and Contractors

11 PROPOSED CHANGES TO THE SWMP

There are no proposed changes to ADOT's SWMP. However, as data and situations dictate a necessary change, it will be implemented and ADEQ will be notified.

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 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 adequate 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 $ 95,700,000 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 $51,900,000.00 in state funds for administrative purposes.

Table 13-4 below provides the actual and estimated expenditures for implemented activities covered by the Phase I, MS4 Permit AZS000018 program requirements.

Table 13-4. ADOT's ESTIMATED STORMWATER MANAGEMENT PROGRAM COMPREHENSIVE ANNUAL BUDGET

PROGRAM/ACTIVITY	FY 2005/2006 Actual	FY 2006/2007 Estimated
Street Sweeping – Phoenix and Tucson Area	$900,000.00	$1,000,000.00
Litter Pick-up and Removal – Phoenix and Tucson Area	$850,000.00	$900,000.00
Preparation and Implementation of Statewide Permit	$150,000.00	$250,000.00
Implement/ Update of SWPPPs for ADOT yards	$5,000.00	$7,000.00
Maintain and Update Stormwater Outfall Map to ADOT's GIS	$50,000.00	$10,000.00
Compliance Audit of ADOT Maintenance Yards	$5,000.00	$5,000.00
Dry Weather Sampling – 20% of Outfalls (includes training)	$6,000.00	$4,000.00
Stormwater Monitoring	$15,000.00	$25,000.00
Preparation of Annual Report	$5,500.00	$4,500.00
ANNUAL TOTALS	**$2,031,500.00**	**$2,250,500**

APPENDIX A
NPDES 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

Phoenix Storm Water Sampling for ADOT-202/32ND Conducted March 11, 2006

Sample ID	ADOT-202/32ND	Environmental Science Corp. (ESC)		
Category	**Method**	**Parameter**	**Result**	**Units**
Conventionals	SM 2540 C	Total Dissolved Solids (TDS)	**560**	mg/l
	EPA 160.2	Total Suspended Solids (TSS)	**42**	mg/l
	SM 2130 B	Turbidity	ND	NTU
	EPA 120.1	Conductivity	**556**	umhos/cm
	EPA 130.1	Hardness, Total (as CaCO3)	**220**	mg/l as CaCO3
	SM 5210 B	BOD	ND	mg/l
	EPA 410.4	COD	**496**	mg/l
	EPA 110.2	Color	ND	pcu
	EPA 150.1	pH		s.u.
Nutrients	EPA 300.0	Nitrite	ND	mg/l
	EPA 300.0	Nitrate	ND	mg/l
	EPA 350.1	Ammonia Nitrogen	**2.66**	mg/l
	EPA 351.2	Total Kjeldahl Nitrogen (TKN)	**11.76**	mg/l
	Calculation	Total Nitrogen	**14.42**	mg/l
Biological/Chlorine	SM9222B	Fecal Coliform (by mem. Filtration)		CFU/100ml
	330.5	Total Chlorine		mg/l
Pesticides, Organochlorine	8081 Water	PCB 1016	ND	mg/l
		PCB 1221	ND	mg/l
		PCB 1232	ND	mg/l
		PCB 1242	ND	mg/l
		PCB 1248	ND	mg/l
		PCB 1254	ND	mg/l
		PCB 1260	ND	mg/l
		Aldrin	ND	mg/l
		alpha-BHC	ND	mg/l
		beta-BHC	ND	mg/l
		delta-BHC	ND	mg/l
		gamma-BHC (Lindane)	ND	mg/l
		Chlordane	ND	mg/l
		4,4-DDD	ND	mg/l
		4,4-DDE	<0.08	mg/l
		4,4-DDT	ND	mg/l
		Dieldrin	ND	mg/l
		Endosulfan I	ND	mg/l
		Endosulfan II	ND	mg/l
		Endosulfan Sulfate	ND	mg/l
		Endrin	ND	mg/l
		Endrin Aldehyde	ND	mg/l
		Endrin Ketone	ND	mg/l
		Heptachlor	ND	mg/l
		Heptachlor Epoxide	ND	mg/l
		Methoxychlor	ND	mg/l
		Toxaphene	ND	mg/l
		Decachlorobiphenyl (sur)	ND	% Recovery
		Tetrachloro-m-xylene (sur)	ND	% Recovery
Metals, Total	EPA 200.8/6020	Antimony	ND	ug/l
		Arsenic	ND	ug/l
		Beryllium	ND	ug/l
		Cadmium	ND	ug/l
		Chromium	ND	ug/l
		Copper	ND	ug/l
		Cyanide (method 335.3)	ND	ug/l
		Lead	ND	ug/l
		Mercury	ND	ug/l
		Nickel	ND	ug/l
		Selenium	ND	ug/l
		Silver	ND	ug/l
		Thallium	ND	ug/l
		Zinc	ND	ug/l
	EPA 365.1	Phosphorus, Total	**1.1**	mg/l
Metals, Dissolved		Dissolved Cadmium[4]	<0.005	mg/l
		Dissolved Chromium[5]	**0.005**	mg/l

	EPA 200.7/6010	Dissolved Copper	**0.017**	mg/l
		Dissolved Lead	<0.015	
		Dissolved Zinc	**0.31**	mg/l
Volalitale Organic Compounds	EPA 624	Benzene	ND	ug/l
		Bromodichloromethane	ND	ug/l
		Bromoform	ND	ug/l
		Bromomethane	ND	ug/l
		Carbon tetrachloride	ND	ug/l
		Chlorobenzene	ND	ug/l
		Chloroethane	ND	ug/l
		2-Chloroethylvinyl ether	ND	ug/l
		Chloroform	ND	ug/l
		Chloromethane	ND	ug/l
		Dibromochloromethane	ND	ug/l
		Dichlorodifluromehane	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		1,1-Dichloroethane	ND	ug/l
		1,2-Dichloroethane	ND	ug/l
		1,1-Dichloroethene	ND	ug/l
		cis-1,2-Dichloroethene	ND	ug/l
		trans-1,2-Dichloroethene	ND	ug/l
		1,2-Dichloropropane	ND	ug/l
		cis-1,3-Dichloropropene	ND	ug/l
		trans-1,3-Dichloropropene	ND	ug/l
		Ethylbenzene	ND	ug/l
		Methylene chloride	ND	ug/l
		Tetrachloroethene	ND	ug/l
		Styrene	ND	ug/l
		Toluene	ND	ug/l
		1,1,1 -Trichloroethane	ND	ug/l
		1,1,2,2-Tetrachloroethane	ND	ug/l
		1,1,2-Trichloroethane	ND	ug/l
		Trichloroethene	ND	ug/l
		Trichlorofluoromethane	ND	ug/l
		Vinyl chloride	ND	ug/l
		Xylene, Total	ND	ug/l
Semi-Volatile Organic Compounds	EPA 625	Acenaphthene	ND	ug/l
		Acenaphthylene	ND	ug/l
		Anthracene	ND	ug/l
		Benzidine	ND	ug/l
		Benz(a)anthracene	ND	ug/l
		Benzo(a)pyrene	ND	ug/l
		Benzo(b)fluoranthene	ND	ug/l
		Benzo(ghi) perylene	ND	ug/l
		Benzo(k)fluoranthene	ND	ug/l
		4-Bromophenyl phenyl ether	ND	ug/l
		Butyl benzyl phthalate	ND	ug/l
		Bis(2-chloroethoxy)methane	ND	ug/l
		Bis(2-chloroethyl) ether	ND	ug/l
		Bis(2-chloroisopropyl) ether	ND	ug/l
		p-Chloro-m-cresol	ND	ug/l
		2-Chloronaphthalene	ND	ug/l
		2-Chlorophenol	ND	ug/l
		4-Chlorophenyl phenyl ether	ND	ug/l
		Chrysene	ND	ug/l
		Dibenz(a,h)anthracene	ND	ug/l
		Di-n-butyl phthalate	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		3,3'-Dichlorobenzidine	ND	ug/l
		2,4-Dichlorophenol	ND	ug/l
		Diethyl phthalate	ND	ug/l
		2,4-Dimethylphenol	ND	ug/l
		Dimethyl phthalate	ND	ug/l
		4,6-Dinitro-o-cresol	ND	ug/l

		2,4-Dinitrophenol	ND	ug/l
		2,4-Dinitrotoluene	ND	ug/l
		2,6-Dinitrotoluene	ND	ug/l
		Di-n-octyl phthalate	ND	ug/l
		1,2-Diphenylhydrazine	ND	ug/l
		bis (2-Ethylhexyl) phthalate	ND	ug/l
		Fluoranthene	ND	ug/l
		Fluorene	ND	ug/l
		Hexachlorobenzene	ND	ug/l
		Hexachlorobutadiene	ND	ug/l
		Hexachlorocyclopentadiene	ND	ug/l
		Hexachloroethane	ND	ug/l
		Ideno(1,2,3-cd)pyrene	ND	ug/l
		Isophorone	ND	ug/l
		Naphthalene	ND	ug/l
		Nitrobenzene	ND	ug/l
		2-Nitrophenol	ND	ug/l
		4-Nitrophenol	ND	ug/l
		N-Nitrosodimethylamine	ND	ug/l
		N-Nitrosodiphenylamine	ND	ug/l
		N-Nitrosodi-n-propylamine	ND	ug/l
		Pentachlorophenol	ND	ug/l
		Phenanthrene	ND	ug/l
		Phenol	ND	ug/l
		Pyrene	ND	ug/l
		1,2,4-Trichlorobenzene	ND	ug/l
		2,4,6-Trichlorophenol	ND	ug/l
Total Petroleum Hydrocarbons[8]	EPA 418.1AZ	Total Petroleum Hydrocarbons	2.10	ug/l
Phenolics	EPA 420.2	Phenolics	**0.061**	mg/l
Detections in boldface type				

Phoenix Storm Water Sampling for 32 ST 202 Conducted March 11, 2006

Sample ID	32 ST 202	Environmental Science Corp. (ESC)		
Category	**Method**	**Parameter**	**Result**	**Units**
Conventionals	SM 2540 C	Total Dissolved Solids (TDS)	**650**	mg/l
	EPA 160.2	Total Suspended Solids (TSS)	**33**	mg/l
	SM 2130 B	Turbidity	**41**	NTU
	EPA 120.1	Specific Conductance	**350**	umhos/cm
	EPA 130.1	Hardness	**120**	mg/l
	SM 5210 B	BOD	**97**	mg/l
	EPA 410.4	COD	**400**	mg/l
	EPA 110.2	Color	**500**	pcu
	EPA 150.1	pH		s.u.
Nutrients	EPA 300.0	Nitrite	**0.56**	mg/l
	EPA 300.0	Nitrate	**4.9**	mg/l
	EPA 350.1	Ammonia Nitrogen	**5.6**	mg/l
	EPA 351.2	Total Kjeldahl Nitrogen (TKN)	**14**	mg/l
	Calculation	Total Nitrogen	**25.06**	mg/l
Biological/Chlorine	SM9222B	Fecal Coliform (by mem. Filtration)		CFU/100ml
	330.5	Total Chlorine		mg/l
Pesticides, Organochlorine	EPA 608	PCB 1016	<0.0010	mg/l
		PCB 1221	<0.0010	mg/l
		PCB 1232	<0.0010	mg/l
		PCB 1242	<0.0010	mg/l
		PCB 1248	<0.0010	mg/l
		PCB 1254	<0.0010	mg/l
		PCB 1260	<0.0010	mg/l
		Aldrin	<0.01	mg/l
		alpha-BHC	<0.01	mg/l
		beta-BHC	<0.01	mg/l
		delta-BHC	<0.01	mg/l
		gamma-BHC (Lindane)	<0.01	mg/l
		Chlordane	<0.10	mg/l
		4,4-DDD	<0.01	mg/l
		4,4-DDE	<0.01	mg/l
		4,4-DDT	<0.01	mg/l
		Dieldrin	<0.01	mg/l
		Endosulfan I	<0.01	mg/l
		Endosulfan II	<0.01	mg/l
		Endosulfan Sulfate	<0.01	mg/l
		Endrin	<0.01	mg/l
		Endrin Aldehyde	<0.01	mg/l
		Endrin Ketone	<0.01	mg/l
		Heptachlor	<0.01	mg/l
		Heptachlor Epoxide	<0.01	mg/l
		Methoxychlor	<0.01	mg/l
		Toxaphene	<0.20	mg/l
		Decachlorobiphenyl (sur)	<0.0005	% Recovery
		Tetrachloro-m-xylene (sur)	<0.0005	% Recovery
Metals, Total	EPA 200.8/6020	Antimony	ND	ug/l
		Arsenic	ND	ug/l
		Beryllium	ND	ug/l
		Cadmium	ND	ug/l
		Chromium	ND	ug/l
		Copper	ND	ug/l
		Cyanide (method 335.3)	ND	ug/l
		Lead	ND	ug/l
		Mercury	ND	ug/l
		Nickel	ND	ug/l
		Selenium	ND	ug/l
		Silver	ND	ug/l
		Thallium	ND	ug/l
		Zinc	ND	ug/l
	EPA 365.1	Phosphorus, Total	**0.68**	mg/l
Metals, Dissolved		Dissolved Cadmium[4]	<0.005	mg/l
		Dissolved Chromium[5]	<0.010	mg/l

	EPA 200.7/6010	Dissolved Copper	**0.085**	mg/l
		Dissolved Lead	<0.005	
		Dissolved Zinc	**0.26**	mg/l
Volalitale Organic Compounds	EPA 624	Benzene	ND	ug/l
		Bromodichloromethane	ND	ug/l
		Bromoform	ND	ug/l
		Bromomethane	ND	ug/l
		Carbon tetrachloride	ND	ug/l
		Chlorobenzene	ND	ug/l
		Chloroethane	ND	ug/l
		2-Chloroethylvinyl ether	ND	ug/l
		Chloroform	ND	ug/l
		Chloromethane	ND	ug/l
		Dibromochloromethane	ND	ug/l
		Dichlorodifluromehane	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		1,1-Dichloroethane	ND	ug/l
		1,2-Dichloroethane	ND	ug/l
		1,1-Dichloroethene	ND	ug/l
		cis-1,2-Dichloroethene	ND	ug/l
		trans-1,2-Dichloroethene	ND	ug/l
		1,2-Dichloropropane	ND	ug/l
		cis-1,3-Dichloropropene	ND	ug/l
		trans-1,3-Dichloropropene	ND	ug/l
		Ethylbenzene	ND	ug/l
		Methylene chloride	ND	ug/l
		Tetrachloroethene	ND	ug/l
		Styrene	ND	ug/l
		Toluene	ND	ug/l
		1,1,1 -Trichloroethane	ND	ug/l
		1,1,2,2-Tetrachloroethane	ND	ug/l
		1,1,2-Trichloroethane	ND	ug/l
		Trichloroethene	ND	ug/l
		Trichlorofluoromethane	ND	ug/l
		Vinyl chloride	ND	ug/l
		Xylene, Total	ND	ug/l
Semi-Volatile Organic Compounds	EPA 625	Acenaphthene	ND	ug/l
		Acenaphthylene	ND	ug/l
		Anthracene	ND	ug/l
		Benzidine	ND	ug/l
		Benz(a)anthracene	ND	ug/l
		Benzo(a)pyrene	ND	ug/l
		Benzo(b)fluoranthene	ND	ug/l
		Benzo(ghi) perylene	ND	ug/l
		Benzo(k)fluoranthene	ND	ug/l
		4-Bromophenyl phenyl ether	ND	ug/l
		Butyl benzyl phthalate	ND	ug/l
		Bis(2-chloroethoxy)methane	ND	ug/l
		Bis(2-chloroethyl) ether	ND	ug/l
		Bis(2-chloroisopropyl) ether	ND	ug/l
		p-Chloro-m-cresol	ND	ug/l
		2-Chloronaphthalene	ND	ug/l
		2-Chlorophenol	ND	ug/l
		4-Chlorophenyl phenyl ether	ND	ug/l
		Chrysene	ND	ug/l
		Dibenz(a,h)anthracene	ND	ug/l
		Di-n-butyl phthalate	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		3,3'-Dichlorobenzidine	ND	ug/l
		2,4-Dichlorophenol	ND	ug/l
		Diethyl phthalate	ND	ug/l
		2,4-Dimethylphenol	ND	ug/l
		Dimethyl phthalate	ND	ug/l
		4,6-Dinitro-o-cresol	ND	ug/l

		2,4-Dinitrophenol	ND	ug/l
		2,4-Dinitrotoluene	ND	ug/l
		2,6-Dinitrotoluene	ND	ug/l
		Di-n-octyl phthalate	ND	ug/l
		1,2-Diphenylhydrazine	ND	ug/l
		bis (2-Ethylhexyl) phthalate	ND	ug/l
		Fluoranthene	ND	ug/l
		Fluorene	ND	ug/l
	EPA 608	Hexachlorobenzene	<0.01	ug/l
		Hexachlorobutadiene	ND	ug/l
		Hexachlorocyclopentadiene	ND	ug/l
		Hexachloroethane	ND	ug/l
		Ideno(1,2,3-cd)pyrene	ND	ug/l
		Isophorone	ND	ug/l
		Naphthalene	ND	ug/l
		Nitrobenzene	ND	ug/l
		2-Nitrophenol	ND	ug/l
		4-Nitrophenol	ND	ug/l
		N-Nitrosodimethylamine	ND	ug/l
		N-Nitrosodiphenylamine	ND	ug/l
		N-Nitrosodi-n-propylamine	ND	ug/l
		Pentachlorophenol	ND	ug/l
		Phenanthrene	ND	ug/l
		Phenol	ND	ug/l
		Pyrene	ND	ug/l
		1,2,4-Trichlorobenzene	ND	ug/l
		2,4,6-Trichlorophenol	ND	ug/l
Total Petroleum Hydrocarbons[8]	EPA 418.1AZ	Total Petroleum Hydrocarbons	<5.0	ug/l
Phenolics	EPA 420.2	Total Phenol by 4AAP	**0.057**	mg/l
Detections in boldface type				

Phoenix Storm Water Sampling for 32 ST 202 TWA Conducted March 11, 2006 (Results for Sample 32 ST 202 based on Time Weighted Average)

Sample ID	32 ST 202 TWA (Time Weighted Avg)	Environmental Science Corp. (ESC)		
Category	**Method**	**Parameter**	**Result**	**Units**
Conventionals	SM 2540 C	Dissolved Solids	**310**	mg/l
	EPA 160.2	Suspended Solids	**37**	mg/l
	EPA 120.1	Specific Conductance	**350**	umhos/cm
	EPA 130.1	Hardness	**120**	mg/l
	SM 5210 B	BOD	**48**	mg/l
	EPA 410.4	COD	**390**	mg/l
	EPA 110.2	Color	**450**	pcu
	EPA 150.1	pH		s.u.
Nutrients	EPA 300.0	Nitrite	**0.51**	mg/l
	EPA 300.0	Nitrate	**3.3**	mg/l
	EPA 350.1	Ammonia Nitrogen	**5.7**	mg/l
	EPA 351.2	Total Kjeldahl Nitrogen (TKN)	**12**	mg/l
	Calculation	Total Nitrogen	**15.81**	mg/l
Biological/Chlorine	SM9222B	Fecal Coliform (by mem. Filtration)		CFU/100ml
	EPA 330.5	Total Chlorine		mg/l
Pesticides, Organochlorine	EPA 608	PCB 1016	<0.10	ug/l
		PCB 1221	<0.10	ug/l
		PCB 1232	<0.10	ug/l
		PCB 1242	<0.10	ug/l
		PCB 1248	<0.10	ug/l
		PCB 1254	<0.10	ug/l
		PCB 1260	<0.10	ug/l
		Aldrin	<0.05	ug/l
		alpha-BHC	<0.05	ug/l
		beta-BHC	<0.05	ug/l
		delta-BHC	<0.05	ug/l
		gamma-BHC (Lindane)	<0.05	ug/l
		Chlordane	<0.50	ug/l
		4,4-DDD	<0.05	ug/l
		4,4-DDE	<0.05	ug/l
		4,4-DDT	<0.05	ug/l
		Dieldrin	<0.05	ug/l
		Endosulfan I	<0.05	ug/l
		Endosulfan II	<0.05	ug/l
		Endosulfan Sulfate	<0.05	ug/l
		Endrin	<0.05	ug/l
		Endrin Aldehyde	<0.50	ug/l
		Endrin Ketone	<0.50	ug/l
		Heptachlor	<0.05	ug/l
		Heptachlor Epoxide	<0.05	ug/l
		Methoxychlor	<0.05	ug/l
		Toxaphene	<1.0	ug/l
		Decachlorobiphenyl (sur)	72	% Recovery
		Tetrachloro-m-xylene (sur)	59	% Recovery
Metals, Total	EPA 200.8/6020	Antimony	ND	ug/l
		Arsenic	ND	ug/l
		Beryllium	ND	ug/l
		Cadmium	ND	ug/l
		Chromium	ND	ug/l
		Copper	ND	ug/l
		Cyanide (method 335.3)	ND	ug/l
		Lead	ND	ug/l
		Mercury	ND	ug/l
		Nickel	ND	ug/l
		Selenium	ND	ug/l
		Silver	ND	ug/l
		Thallium	ND	ug/l
		Zinc	ND	ug/l
	EPA 365.1	Phosphorus, Total	**0.63**	mg/l

Metals, Dissolved	EPA 200.7/6010	Dissolved Cadmium[4]	<0.005	mg/l
		Dissolved Chromium[5]	<0.010	mg/l
		Dissolved Copper	**0.082**	mg/l
		Dissolved Lead	<0.005	mg/l
		Dissolved Zinc	**0.2**	mg/l
Volalitale Organic Compounds	EPA 624	Benzene	ND	ug/l
		Bromodichloromethane	ND	ug/l
		Bromoform	ND	ug/l
		Bromomethane	ND	ug/l
		Carbon tetrachloride	ND	ug/l
		Chlorobenzene	ND	ug/l
		Chloroethane	ND	ug/l
		2-Chloroethylvinyl ether	ND	ug/l
		Chloroform	ND	ug/l
		Chloromethane	ND	ug/l
		Dibromochloromethane	ND	ug/l
		Dichlorodifluromehane	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		1,1-Dichloroethane	ND	ug/l
		1,2-Dichloroethane	ND	ug/l
		1,1-Dichloroethene	ND	ug/l
		cis-1,2-Dichloroethene	ND	ug/l
		trans-1,2-Dichloroethene	ND	ug/l
		1,2-Dichloropropane	ND	ug/l
		cis-1,3-Dichloropropene	ND	ug/l
		trans-1,3-Dichloropropene	ND	ug/l
		Ethylbenzene	ND	ug/l
		Methylene chloride	ND	ug/l
		Tetrachloroethene	ND	ug/l
		Styrene	ND	ug/l
		Toluene	ND	ug/l
		1,1,1 -Trichloroethane	ND	ug/l
		1,1,2,2-Tetrachloroethane	ND	ug/l
		1,1,2-Trichloroethane	ND	ug/l
		Trichloroethene	ND	ug/l
		Trichlorofluoromethane	ND	ug/l
		Vinyl chloride	ND	ug/l
		Xylene, Total	ND	ug/l
Semi-Volatile Organic Compounds	EPA 625	Acenaphthene	ND	ug/l
		Acenaphthylene	ND	ug/l
		Anthracene	ND	ug/l
		Benzidine	ND	ug/l
		Benz(a)anthracene	ND	ug/l
		Benzo(a)pyrene	ND	ug/l
		Benzo(b)fluoranthene	ND	ug/l
		Benzo(ghi) perylene	ND	ug/l
		Benzo(k)fluoranthene	ND	ug/l
		4-Bromophenyl phenyl ether	ND	ug/l
		Butyl benzyl phthalate	ND	ug/l
		Bis(2-chloroethoxy)methane	ND	ug/l
		Bis(2-chloroethyl) ether	ND	ug/l
		Bis(2-chloroisopropyl) ether	ND	ug/l
		p-Chloro-m-cresol	ND	ug/l
		2-Chloronaphthalene	ND	ug/l
		2-Chlorophenol	ND	ug/l
		4-Chlorophenyl phenyl ether	ND	ug/l
		Chrysene	ND	ug/l
		Dibenz(a,h)anthracene	ND	ug/l
		Di-n-butyl phthalate	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		3,3'-Dichlorobenzidine	ND	ug/l
		2,4-Dichlorophenol	ND	ug/l
		Diethyl phthalate	ND	ug/l
		2,4-Dimethylphenol	ND	ug/l

		Dimethyl phthalate	ND	ug/l
		4,6-Dinitro-o-cresol	ND	ug/l
		2,4-Dinitrophenol	ND	ug/l
		2,4-Dinitrotoluene	ND	ug/l
		2,6-Dinitrotoluene	ND	ug/l
		Di-n-octyl phthalate	ND	ug/l
		1,2-Diphenylhydrazine	ND	ug/l
		bis (2-Ethylhexyl) phthalate	ND	ug/l
		Fluoranthene	ND	ug/l
		Fluorene	ND	ug/l
	EPA 608	Hexachlorobenzene	<0.05	ug/l
		Hexachlorobutadiene	ND	ug/l
		Hexachlorocyclopentadiene	ND	ug/l
		Hexachloroethane	ND	ug/l
		Ideno(1,2,3-cd)pyrene	ND	ug/l
		Isophorone	ND	ug/l
		Naphthalene	ND	ug/l
		Nitrobenzene	ND	ug/l
		2-Nitrophenol	ND	ug/l
		4-Nitrophenol	ND	ug/l
		N-Nitrosodimethylamine	ND	ug/l
		N-Nitrosodiphenylamine	ND	ug/l
		N-Nitrosodi-n-propylamine	ND	ug/l
		Pentachlorophenol	ND	ug/l
		Phenanthrene	ND	ug/l
		Phenol	ND	ug/l
		Pyrene	ND	ug/l
		1,2,4-Trichlorobenzene	ND	ug/l
		2,4,6-Trichlorophenol	ND	ug/l
Total Petroleum Hydrocarbons[8]	EPA 418.1AZ	Total Petroleum Hydrocarbons	<5.0	ug/l
Phenolics	EPA 420.2	Total Phenol by 4AAP	**0.06**	mg/l
Detections in boldface type				

Tucson Storm Water Sampling for ADOT-I10-1 Conducted March 20, 2006

Sample ID	ADOT-I10-1	Turner Laboratories, Inc.		
Category	**Method**	**Parameter**	**Result**	**Units**
Conventionals	EPA 160.1	Total Dissolved Solids (TDS)	**670**	mg/l
	EPA 160.2	Total Suspended Solids (TSS)	**26**	mg/l
	EPA 180.1	Turbidity	**58**	NTU
	EPA 120.1	Conductivity	**850**	umhos/cm
	SM 2340 B	Hardness, Total (as CaCO3)	**320**	mg/l as CaCO3
	EPA 405.1	BOD	**120**	mg/l
	EPA 410.4	COD	**800**	mg/l
	SM 2120 B	Color	**>15**	s.u.
	SM 2120 B	pH	**7.1**	s.u.
Nutrients	EPA 300	Nitrogen, Nitrite	<0.10	mg/l
	EPA 300	Nitrogen, Nitrate (as N)	<1.0	mg/l
	EPA 350.1	Nitrogen, Ammonia (as N)	**17**	mg/l
	EPA 351.3	Nitrogen, Kjeldahl, total	**31**	mg/l
	Calculation	Total Nitrogen	**48**	mg/l
Biological/Chlorine	SM 9222 B	Fecal Coliform (by mem. Filtration)		CFU/100ml
	EPA 330.5	Total Chlorine		mg/l
Pesticides, Organochlorine	EPA 608	Arocior 1016	ND	ug/l
		Arocior 1221	ND	ug/l
		Arocior 1232	ND	ug/l
		Aroclor 1242	ND	ug/l
		Aroclor 1248	ND	ug/l
		Aroclor 1254	ND	ug/l
		Aroclor 1260	ND	ug/l
		Aldrin	ND	ug/l
		alpha-BHC	ND	ug/l
		beta-BHC	ND	ug/l
		delta-BHC	ND	ug/l
		gamma-BHC (Lindane)	ND	ug/l
		Chlordane	ND	ug/l
		4,4-DDD	ND	ug/l
		4,4-DDE	ND	ug/l
		4,4-DDT	ND	ug/l
		Dieldrin	ND	ug/l
		Endosulfan I	ND	ug/l
		Endosulfan II	ND	ug/l
		Endosulfan Sulfate	ND	ug/l
		Endrin	ND	ug/l
		Endrin Aldehyde	ND	ug/l
		Heptachlor	ND	ug/l
		Heptachlor Epoxide	ND	ug/l
		Methoxychlor	ND	ug/l
		Toxaphene	ND	ug/l
Metals, Total	EPA 200.7/6010	Calcium	**110**	ug/l
		Magnesium	**11**	ug/l
Metals, Dissolved	EPA 200.7/6010	Dissolved Cadmium[4]	<0.0050	mg/l
		Dissolved Chromium[5]	<0.010	mg/l
		Dissolved Copper	<0.010	mg/l
		Dissolved Lead	<0.030	
		Dissolved Zinc	**0.11**	mg/l
Volalitale Organic Compounds	EPA 624	Benzene	ND	ug/l
		Bromodichloromethane	ND	ug/l
		Bromoform	ND	ug/l
		Bromomethane	ND	ug/l
		Carbon tetrachloride	ND	ug/l
		Chlorobenzene	ND	ug/l

		Chloroethane	ND	ug/l
		2-Chloroethylvinyl ether	ND	ug/l
		Chloroform	ND	ug/l
		Chloromethane	ND	ug/l
		Dibromochloromethane	ND	ug/l
		Dichlorodifluromehane	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		1,1-Dichloroethane	ND	ug/l
		1,2-Dichloroethane	ND	ug/l
		1,1-Dichloroethene	ND	ug/l
		cis-1,2-Dichloroethene	ND	ug/l
		trans-1,2-Dichloroethene	ND	ug/l
		1,2-Dichloropropane	ND	ug/l
		cis-1,3-Dichloropropene	ND	ug/l
		trans-1,3-Dichloropropene	ND	ug/l
		Ethylbenzene	ND	ug/l
		Methylene chloride	ND	ug/l
		Tetrachloroethene	ND	ug/l
		Styrene	ND	ug/l
		Toluene	ND	ug/l
		1,1,1 -Trichloroethane	ND	ug/l
		1,1,2,2-Tetrachloroethane	ND	ug/l
		1,1,2-Trichloroethane	ND	ug/l
		Trichloroethene	ND	ug/l
		Trichlorofluoromethane	ND	ug/l
		Vinyl chloride	ND	ug/l
		Xylene, Total	ND	ug/l
Semi-Volatile Organic Compounds	EPA 625	Acenaphthene	ND	ug/l
		Acenaphthylene	ND	ug/l
		Anthracene	ND	ug/l
		Benzidine	ND	ug/l
		Benz(a)anthracene	ND	ug/l
		Benzo(a)pyrene	ND	ug/l
		Benzo(b)fluoranthene	ND	ug/l
		Benzo(ghi) perylene	ND	ug/l
		Benzo(k)fluoranthene	ND	ug/l
		4-Bromophenyl phenyl ether	ND	ug/l
		Butyl benzyl phthalate	ND	ug/l
		Bis(2-chloroethoxy)methane	ND	ug/l
		Bis(2-chloroethyl) ether	ND	ug/l
		Bis(2-chloroisopropyl) ether	ND	ug/l
		p-Chloro-m-cresol	ND	ug/l
		2-Chloronaphthalene	ND	ug/l
		2-Chlorophenol	ND	ug/l
		4-Chlorophenyl phenyl ether	ND	ug/l
		Chrysene	ND	ug/l
		Dibenz(a,h)anthracene	ND	ug/l
		Di-n-butyl phthalate	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		3,3'-Dichlorobenzidine	ND	ug/l
		2,4-Dichlorophenol	ND	ug/l
		Diethyl phthalate	ND	ug/l
		2,4-Dimethylphenol	ND	ug/l
		Dimethyl phthalate	ND	ug/l
		4,6-Dinitro-o-cresol	ND	ug/l
		2,4-Dinitrophenol	ND	ug/l
		2,4-Dinitrotoluene	ND	ug/l
		2,6-Dinitrotoluene	ND	ug/l
		Di-n-octyl phthalate	ND	ug/l
		1,2-Diphenylhydrazine	ND	ug/l
		bis (2-Ethylhexyl) phthalate	ND	ug/l
		Fluoranthene	ND	ug/l
		Fluorene	ND	ug/l
		Hexachlorobenzene	ND	ug/l
		Hexachlorobutadiene	ND	ug/l
		Hexachlorocyclopentadiene	ND	ug/l

		Hexachloroethane	ND	ug/l
		Ideno(1,2,3-cd)pyrene	ND	ug/l
		Isophorone	ND	ug/l
		Naphthalene	ND	ug/l
		Nitrobenzene	ND	ug/l
		2-Nitrophenol	ND	ug/l
		4-Nitrophenol	ND	ug/l
		N-Nitrosodimethylamine	ND	ug/l
		N-Nitrosodiphenylamine	ND	ug/l
		N-Nitrosodi-n-propylamine	ND	ug/l
		Pentachlorophenol	ND	ug/l
		Phenanthrene	ND	ug/l
		Phenol	ND	ug/l
		Pyrene	ND	ug/l
		1,2,4-Trichlorobenzene	ND	ug/l
		2,4,6-Trichlorophenol	ND	ug/l
Total Petroleum Hydrocarbons[8]	EPA 1664A	Total Petroleum Hudrocarbons	<5.0	ug/l
Phenolics	EPA 420.1	Phenolics, Total recoverable	<0.050	mg/l
Detections in boldface type				

Tucson Storm Water Sampling for ADOT-I10-2 Conducted March 20, 2006

Sample ID	ADOT-I10-2	Turner Laboratories, Inc.		
Category	**Method**	**Parameter**	**Result**	**Units**
Conventionals	EPA 160.1	Total Dissolved Solids (TDS)	720	mg/l
	EPA 160.2	Total Suspended Solids (TSS)	69	mg/l
	EPA 180.1	Turbidity	110	NTU
	EPA 120.1	Conductivity	850	umhos/cm
	SM 2340 B	Hardness, Total (as CaCO3)	350	mg/l as CaCO3
	EPA 405.1	BOD	131	mg/l
	EPA 410.4	COD	690	mg/l
	SM 2120 B	Color	>15	s.u.
	SM 2120 B	pH	6.5	s.u.
Nutrients	EPA 300	Nitrogen, Nitrite	14	mg/l
	EPA 300	Nitrogen, Nitrate (as N)	<2.0	mg/l
	EPA 350.1	Nitrogen, Ammonia (as N)	5.5	mg/l
	EPA 351.3	Nitrogen, Kjeldahl, total	25	mg/l
	Calculation	Total Nitrogen	39	mg/l
Biological/Chlorine	SM 9222 B	Fecal Coliform (by mem. Filtration)		CFU/100ml
	EPA 330.5	Total Chlorine		mg/l
Pesticides, Organochlorine	EPA 608	Aroclor 1016	ND	ug/l
		Aroclor 1221	ND	ug/l
		Aroclor 1232	ND	ug/l
		Aroclor 1242	ND	ug/l
		Aroclor 1248	ND	ug/l
		Aroclor 1254	ND	ug/l
		Aroclor 1260	ND	ug/l
		Aldrin	ND	ug/l
		alpha-BHC	ND	ug/l
		beta-BHC	ND	ug/l
		delta-BHC	ND	ug/l
		gamma-BHC (Lindane)	ND	ug/l
		Chlordane	ND	ug/l
		4,4-DDD	ND	ug/l
		4,4-DDE	<0.10	ug/l
		4,4-DDT	ND	ug/l
		Dieldrin	ND	ug/l
		Endosulfan I	ND	ug/l
		Endosulfan II	ND	ug/l
		Endosulfan Sulfate	ND	ug/l
		Endrin	ND	ug/l
		Endrin Aldehyde	ND	ug/l
		Heptachlor	ND	ug/l
		Heptachlor Epoxide	ND	ug/l
		Methoxychlor	ND	ug/l
		Toxaphene	ND	ug/l
		Decachlorobiphenyl (sur)	82	% Recovered
		Tetrachloro-m-xylene (sur)	159	% Recovered
Metals, Total	EPA 200.7/6010	Calcium	120	mg/l
		Magnesium	13	mg/l
	H8190	Phosphorus	1.3	mg/l
Metals, Dissolved	EPA 200.7/6010	Dissolved Cadmium[4]	<0.050	mg/l
		Dissolved Chromium[5]	<0.10	mg/l
		Dissolved Copper	<0.10	mg/l
		Dissolved Lead	<0.15	
		Dissolved Zinc	<0.50	mg/l
Volalitale Organic Compounds	EPA 624	Benzene	ND	ug/l
		Bromodichloromethane	ND	ug/l
		Bromoform	ND	ug/l

		Bromomethane	ND	ug/l
		Carbon tetrachloride	ND	ug/l
		Chlorobenzene	ND	ug/l
		Chloroethane	ND	ug/l
		2-Chloroethylvinyl ether	ND	ug/l
		Chloroform	ND	ug/l
		Chloromethane	ND	ug/l
		Dibromochloromethane	ND	ug/l
		Dichlorodifluromehane	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		1,1-Dichloroethane	ND	ug/l
		1,2-Dichloroethane	ND	ug/l
		1,1-Dichloroethene	ND	ug/l
		cis-1,2-Dichloroethene	ND	ug/l
		trans-1,2-Dichloroethene	ND	ug/l
		1,2-Dichloropropane	ND	ug/l
		cis-1,3-Dichloropropene	ND	ug/l
		trans-1,3-Dichloropropene	ND	ug/l
		Ethylbenzene	ND	ug/l
		Methylene chloride	ND	ug/l
		Tetrachloroethene	ND	ug/l
		Styrene	ND	ug/l
		Toluene	ND	ug/l
		1,1,1 -Trichloroethane	ND	ug/l
		1,1,2,2-Tetrachloroethane	ND	ug/l
		1,1,2-Trichloroethane	ND	ug/l
		Trichloroethene	ND	ug/l
		Trichlorofluoromethane	ND	ug/l
		Vinyl chloride	ND	ug/l
		Xylene, Total	ND	ug/l
Semi-Volatile Organic Compounds	EPA 625	Acenaphthene	ND	ug/l
		Acenaphthylene	ND	ug/l
		Anthracene	ND	ug/l
		Benzidine	ND	ug/l
		Benz(a)anthracene	ND	ug/l
		Benzo(a)pyrene	ND	ug/l
		Benzo(b)fluoranthene	ND	ug/l
		Benzo(ghi) perylene	ND	ug/l
		Benzo(k)fluoranthene	ND	ug/l
		4-Bromophenyl phenyl ether	ND	ug/l
		Butyl benzyl phthalate	ND	ug/l
		Bis(2-chloroethoxy)methane	ND	ug/l
		Bis(2-chloroethyl) ether	ND	ug/l
		Bis(2-chloroisopropyl) ether	ND	ug/l
		p-Chloro-m-cresol	ND	ug/l
		2-Chloronaphthalene	ND	ug/l
		2-Chlorophenol	ND	ug/l
		4-Chlorophenyl phenyl ether	ND	ug/l
		Chrysene	ND	ug/l
		Dibenz(a,h)anthracene	ND	ug/l
		Di-n-butyl phthalate	ND	ug/l
		1,2-Dichlorobenzene	ND	ug/l
		1,3-Dichlorobenzene	ND	ug/l
		1,4-Dichlorobenzene	ND	ug/l
		3,3'-Dichlorobenzidine	ND	ug/l
		2,4-Dichlorophenol	ND	ug/l
		Diethyl phthalate	ND	ug/l
		2,4-Dimethylphenol	ND	ug/l
		Dimethyl phthalate	ND	ug/l
		4,6-Dinitro-o-cresol	ND	ug/l
		2,4-Dinitrophenol	ND	ug/l
		2,4-Dinitrotoluene	ND	ug/l
		2,6-Dinitrotoluene	ND	ug/l
		Di-n-octyl phthalate	ND	ug/l
		1,2-Diphenylhydrazine	ND	ug/l
		bis (2-Ethylhexyl) phthalate	ND	ug/l
		Fluoranthene	ND	ug/l
		Fluorene	ND	ug/l

		Hexachlorobenzene	ND	ug/l
		Hexachlorobutadiene	ND	ug/l
		Hexachlorocyclopentadiene	ND	ug/l
		Hexachloroethane	ND	ug/l
		Ideno(1,2,3-cd)pyrene	ND	ug/l
		Isophorone	ND	ug/l
		Naphthalene	ND	ug/l
		Nitrobenzene	ND	ug/l
		2-Nitrophenol	ND	ug/l
		4-Nitrophenol	ND	ug/l
		N-Nitrosodimethylamine	ND	ug/l
		N-Nitrosodiphenylamine	ND	ug/l
		N-Nitrosodi-n-propylamine	ND	ug/l
		Pentachlorophenol	ND	ug/l
		Phenanthrene	ND	ug/l
		Phenol	ND	ug/l
		Pyrene	ND	ug/l
		1,2,4-Trichlorobenzene	ND	ug/l
		2,4,6-Trichlorophenol	ND	ug/l
Total Petroleum Hydrocarbons[8]	EPA 1664A	Total Petroleum Hudrocarbons	**21**	mg/l
Phenolics	EPA 420.1	Phenolics, Total recoverable	**0.076**	mg/l
Detections in boldface type				

APPENDIX C
Dry Weather Screening Forms

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: I-10 SD

Outfall Location Code: _____ **L.U.Type** Industrial/Commercial
(see manual, pp FCD-1-5) (see reverse)

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

Access Instructions: Valencia west from I-19 under bridge NW bank Cruz River
(nearest intersection or landmark)

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

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: 6/21/06 2:10pm		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) urine

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

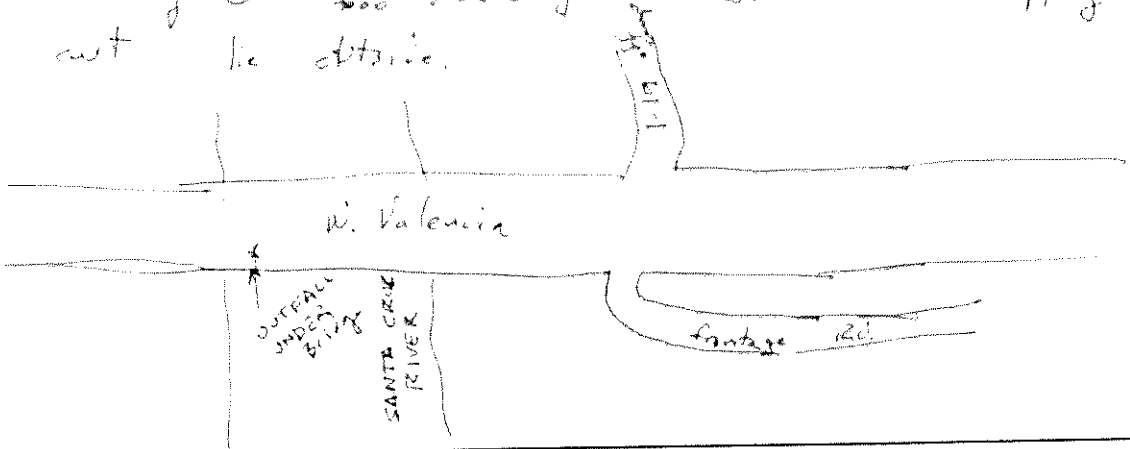
Signature: _____

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:	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) :

Appear to be homeless people living inside. clothing & food beverage containers and a shopping cart lie outside.



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: 19-61.7

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

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

Access Instructions: Intersection Co. Lincoln at E. Elizabeth Rd. (nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): open channel concrete - 4' x 12' deep

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: 4/21/09 1:45pm	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

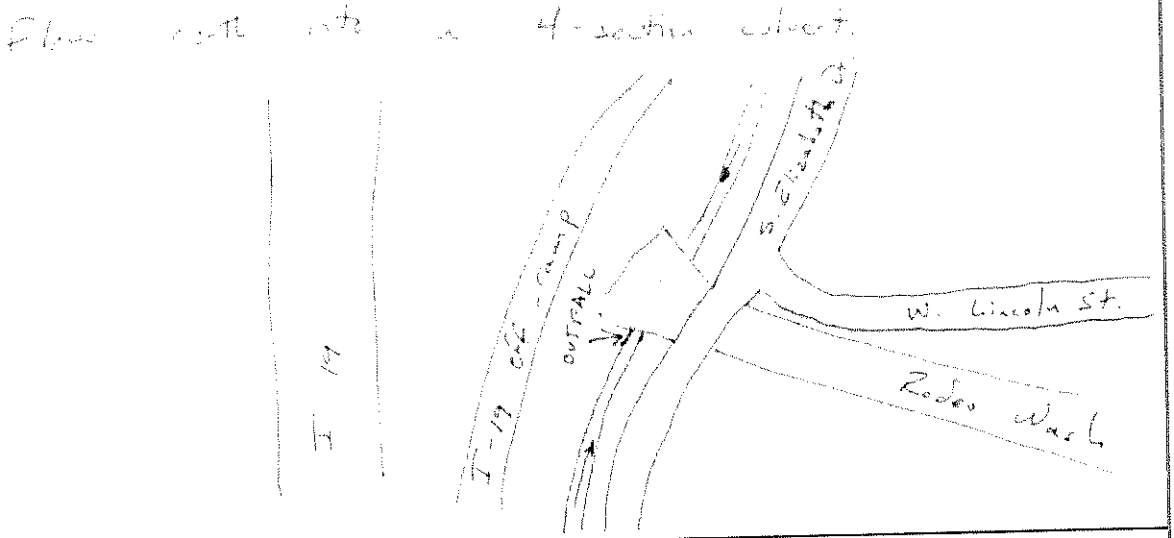
Biological: none fish algae other

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) :



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: 86-171.1

Outfall Location Code: _____ **L.U.Type** commercial / residential
(see manual, pp FCD-1-5) (see reverse)

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

Access Instructions: West on 36 past I-19 exit
(nearest intersection or landmark)

For discrepancies or omissions only:
Outfall type, shape, material, and dimensions (see manual for codes): open channel
circular corrugated steel 36"

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: 6/21/16 1:30pm	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

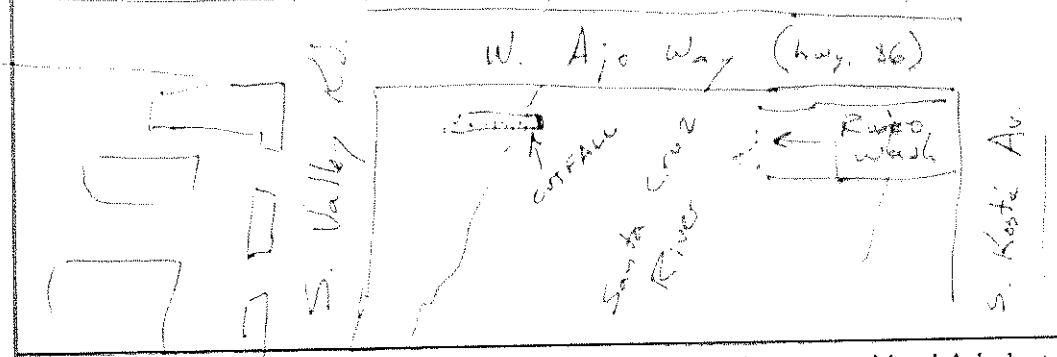
Signature: _____

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) :

Possible nesting area for pigeons, but nothing of note. Because of the location of the outfall, I couldn't get a view of the inside.



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: CIRCULAR PIPE

Outfall Location Code: 10-130.2 (see manual, pp FCD-1-5) **L.U.Type** HIGHWAY - I-10 (see reverse)

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

Access Instructions: AQUA FRIA RIVER UNDER VAN BUREN ST.; PARK ON ELESIO FELIX JR. WAY; OUTFALL IS ON W BANK (nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): CONCRETE PIPE - 48" DIAMETER

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: 8·30·06 1336	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: 103 °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) TRASH

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

Biological: (none) fish algae other

Signature: Sabrina Jastrisa

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: _____

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: CIRCULAR PIPE

Outfall Location Code: 10-151.06 (see manual, pp FCD-1-5) **L.U.Type** HIGHWAY - I-10 (see reverse)

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

Access Instructions: NW QUAD. OF I-10 & UNIVERSITY DR.; PARK IN BUSINESS COMPLEX ON ELWOOD ST.; OUTFALL IS ON S BANK (nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): CONCRETE PIPE - 66" DIAMETER

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: 8·30·06 0951		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: 103 °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: Tabitha Jaffeson

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: _____

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: CIRCULAR PIPE

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

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

Access Instructions: APPROX. 400' S OF NORTHERN AVE., E OF 51; OUTFALL IS ON W SIDE OF CHANNEL (nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): CONCRETE PIPE - 48" DIAMETER

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: 8·28·06 1523		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: 105 °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: Sabrina Salpisa

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: _____

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: OPEN CHANNEL

Outfall Location Code: 87 - 178.55 (see manual, pp FCD-1-5) **L.U.Type** HIGHWAY - 87 (see reverse)

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

Access Instructions: SE OF 87, N OF MCDOWELL (nearest intersection or landmark)

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

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: 8·28·06 1320	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: 105 °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: Sabrina Jaspers

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: _____

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: OPEN CHANNEL

Outfall Location Code: 101-14.38 (see manual, pp FCD-1-5) **L.U.Type** HIGHWAY - 101 (see reverse)

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

Access Instructions: APPROX. 1200' S OF BELL RD., W OF 101; PARK ON 84TH AVE., OUTFALL IS ON E. BANK (nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): CONCRETE CHANNEL - 10' DEEP X 28' WIDE

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: 8-23-06 1430	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: 104 °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: Sabrina Lafferty

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: _____

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: CIRCULAR PIPE

Outfall Location Code: 101 - 15.18 (see manual, pp FCD-1-5) **L.U.Type** HIGHWAY - 101 (see reverse)

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

Access Instructions: APPROX. 2100' N of BELL RD., W OF 101; PARK ON 84TH AVE. (NEAR BEND DR.), OUTFALL IS ON E. BANK (nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): CONCRETE PIPE - 48" DIAMETER

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: 8-23-06 1520		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: 104 °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) TRASH

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

Biological: (none) fish algae other

Signature: Athena Jackson

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: _____

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: CIRCULAR PIPE

Outfall Location Code: 143-2.90 (see manual, pp FCD-1-5) **L.U.Type** HIGHWAY - 143 (see reverse)

Receiving Water: OLD CROSS CUT CANAL (water of the U.S., USGS map waters, or ADEQ designated waters)

Access Instructions: APPROX. 600' N OF VAN BUREN, E OF 143; ACCESS IS FROM 47TH ST. E VAN BUREN, OUTFALL IS ON W SIDE (nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): CONCRETE PIPE - 1600" DIAMETER

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: 8.30.06 1144		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: 103 °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: Rebecca Zapien

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: ____

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: OPEN CHANNEL

Outfall Location Code: 202 - 5.14 (see manual, pp FCD-1-5) **L.U.Type** HIGHWAY - 202 (see reverse)

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

Access Instructions: NE OF 202 & SKY HARBOR BLVD.; ACCESS FROM 40TH ST. (nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): OPEN EARTHEN CHANNEL - APPROX. 5' X 100'

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: 8.30.06 1127		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: 103 °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: Fabiana Fabiana

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: _____

SITE REPORT
DRY WEATHER FIELD SCREEN

Structure Name: CIRCULAR PIPE

Outfall Location Code: 202 - 5.90 (see manual, pp FCD-1-5) **L.U.Type** HIGHWAY-202 (see reverse)

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

Access Instructions: SE OF PRIEST DR. & 202; ACCESS BY FOOT @ SE CORNER OF PRIEST & 202, WALK APPROX. 1100' E OF PRIEST, OUTFALL IS ON N BANK
(nearest intersection or landmark)

For discrepancies or omissions only:

Outfall type, shape, material, and dimensions (see manual for codes): CONCRETE PIPE - 36" DIAMETER

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: 8·30·06 1044		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: 103 °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)	**Physical Observations** (2nd Visit): (circle appropriate descriptors, for "other" write in description)
Deposits: (none) sediments oily other	Deposits: none sediments oily other
Odor: (none) musty sewage rotten eggs solvent chlorine other	Odor: none musty sewage rotten eggs solvent chlorine other
Biological: (none) fish algae other	Biological: none fish algae other
Signature: [signature]	Signature:

APPENDIX D
Dry Weather Screening Photos

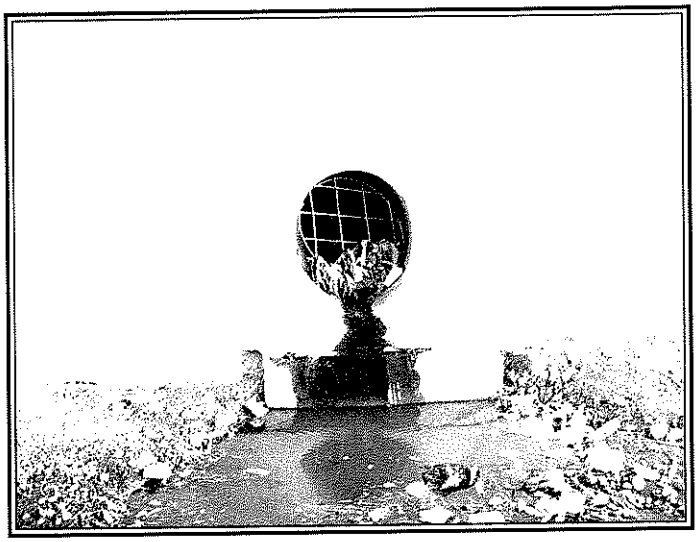


Photo No. D-1

Description: Outfall 10-130.2 located on the west bank of the Aqua Fria River under Van Buren Street

View: West

Date: August 30, 2006

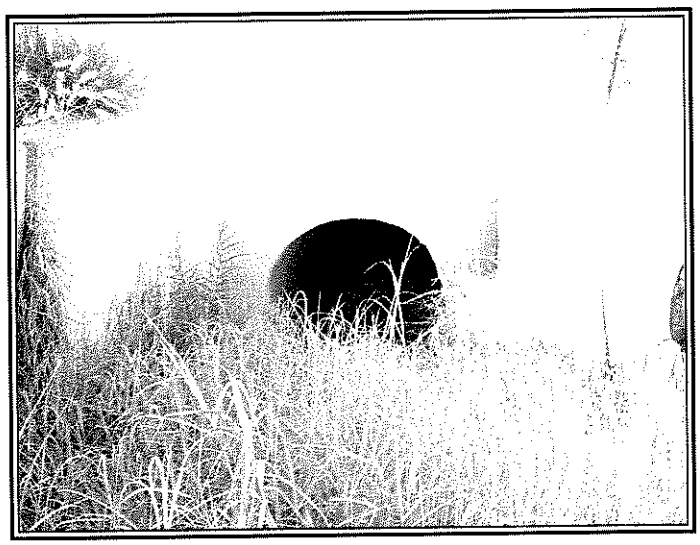


Photo No. D-2

Description: Outfall 10-151.06 located near the northwest corner of I-10 and University Drive

View: Southeast

Date: August 30, 2006

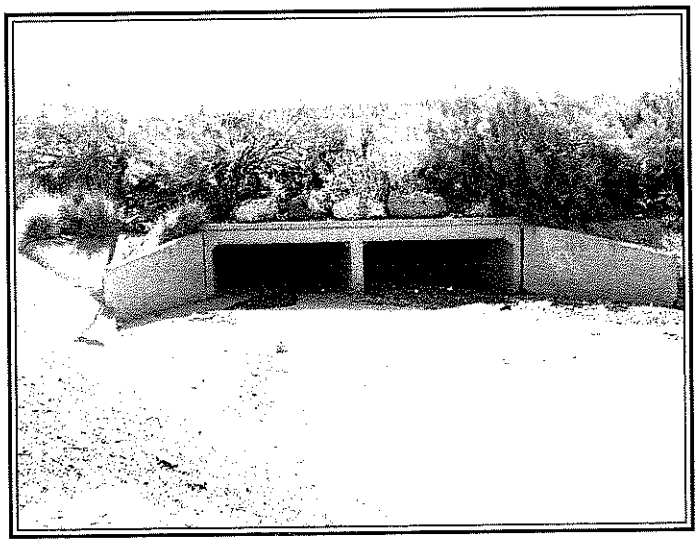


Photo No. D-3

Description: Outfall 51-7.04 located east of SR-51 and south of Northern Avenue

View: West

Date: August 28, 2006

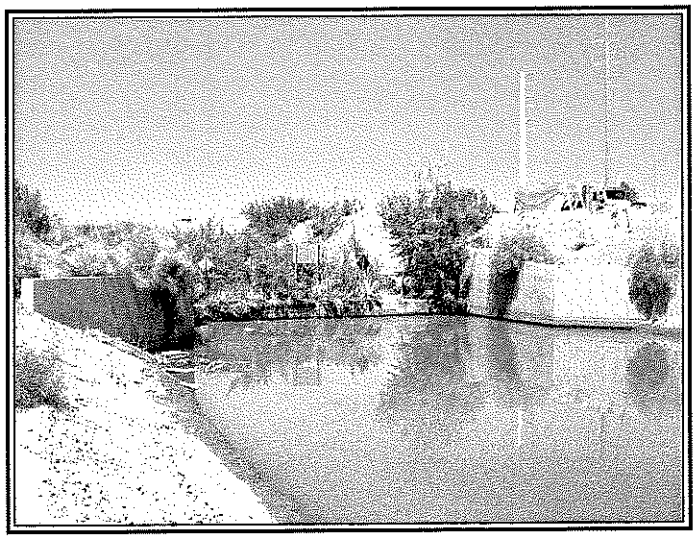


Photo No. D-4

Description: Outfall 87-178.55 located southeast of SR-87 and north of McDowell Road

View: North-northeast

Date: August 28, 2006

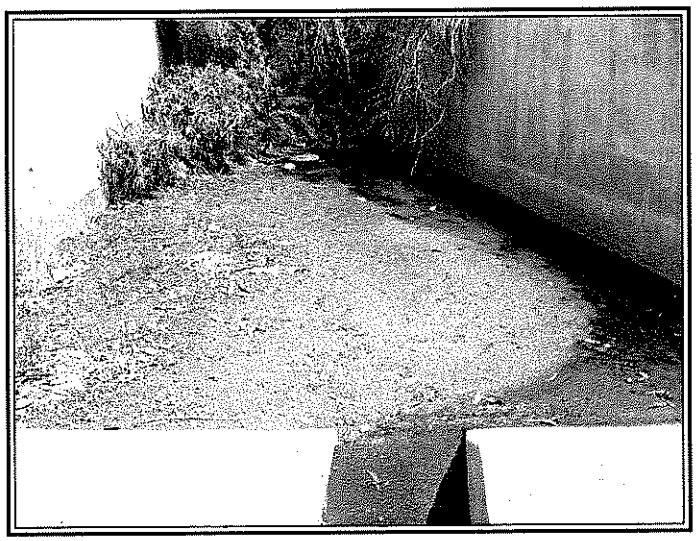


Photo No. D-5

Description: Outfall 101-14.38 located on the east bank of the Aqua Fria River, south of Bell Road

View: East

Date: August 28, 2006

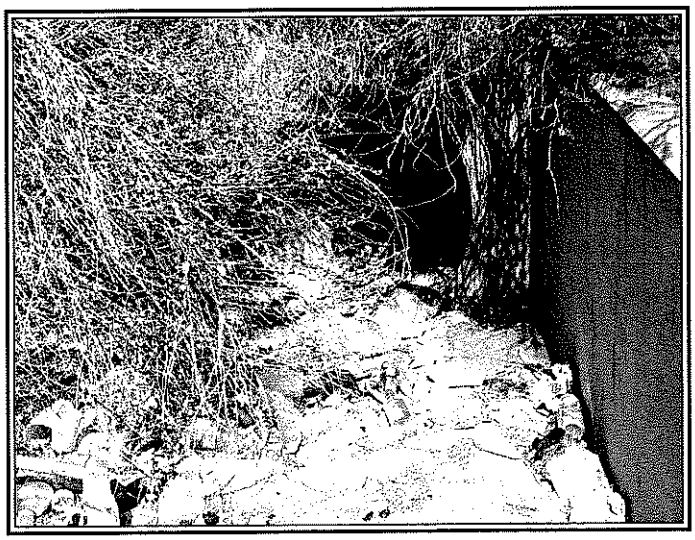


Photo No. D-6

Description: Outfall 101-15.18 located on the east bank of the Aqua Fria River, north of Bell Road

View: East

Date: August 28, 2006

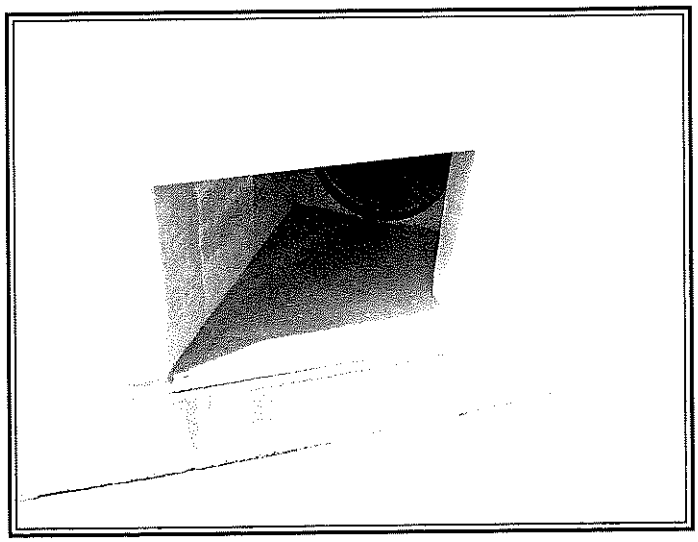


Photo No. D-7

Description: Outfall 143-2.90 located on the west side of the Old Cross Cut Canal, north of Van Buren Street

View: West

Date: August 30, 2006

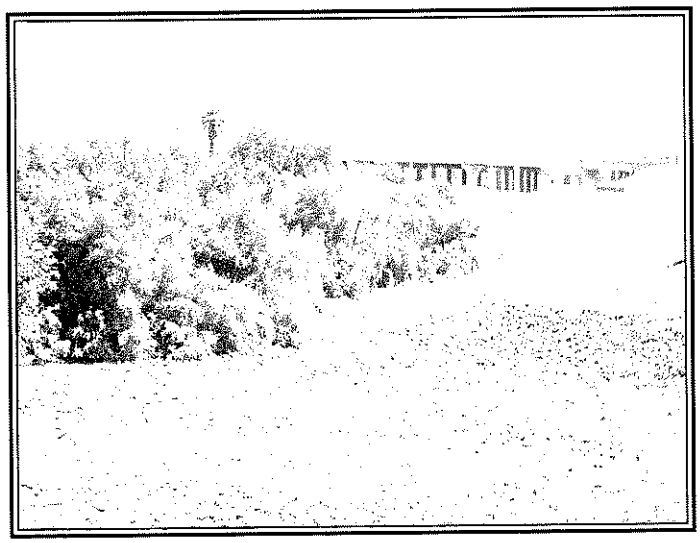


Photo No. D-8

Description: Outfall 202-5.14 located northeast of Loop 202 and Sky Harbor Boulevard

View: Northeast

Date: August 30, 2006

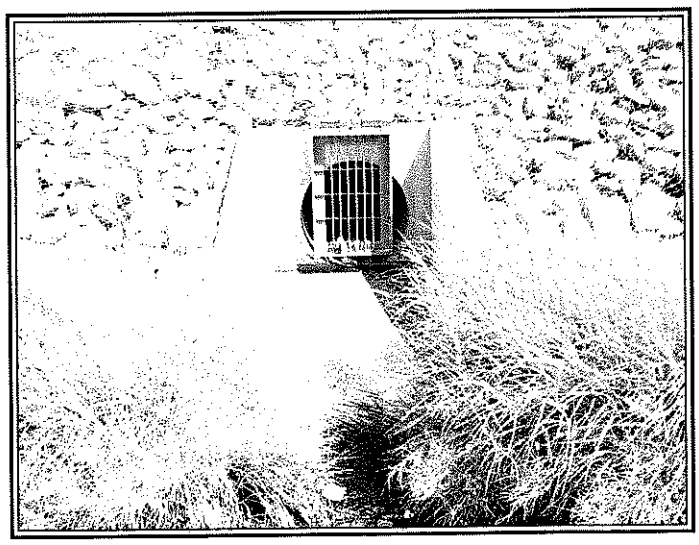


Photo No. D-9

Description: Outfall 202-5.90 located on the north bank of the Salt River, east of Priest Drive

View: North

Date: August 30, 2006

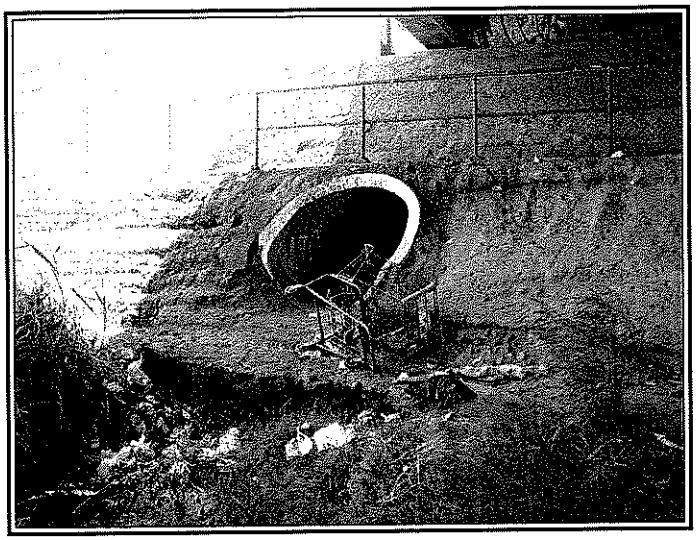


Photo No. D-10

Description: Outfall 19-59.0 located on the west bank of the Santa Cruz River, under Valencia Road

View: West-southwest

Date: June 21, 2006

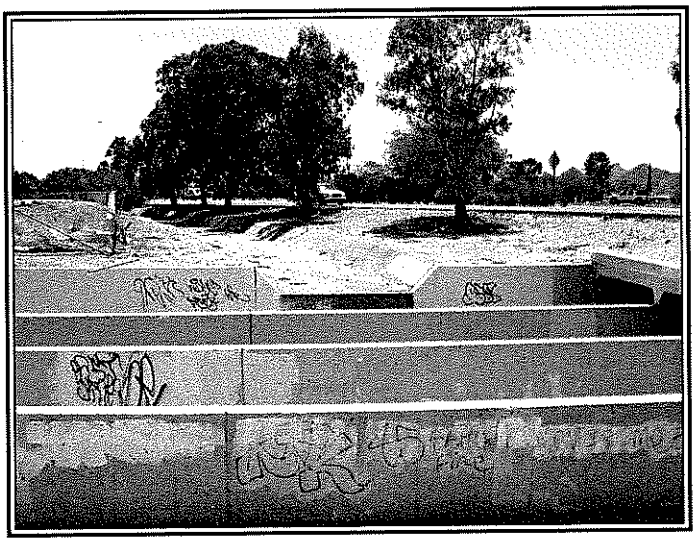


Photo No. D-11

Description: Outfall 19-61.7 located east of I-19, south of Rodeo Wash

View: Southwest

Date: June 21, 2006

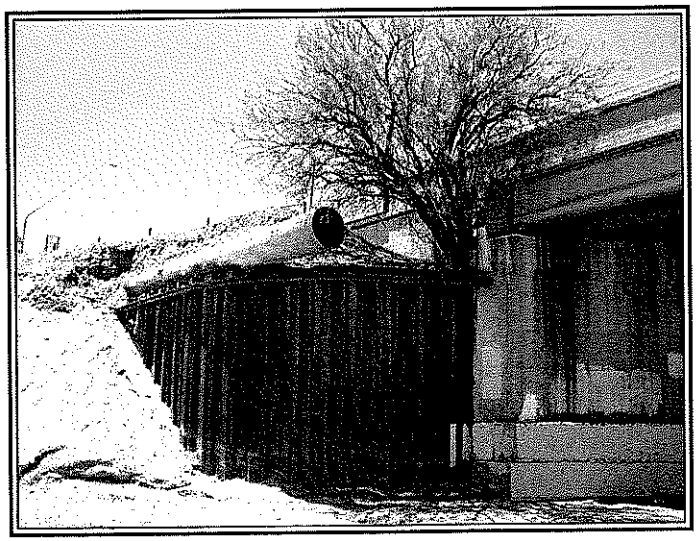


Photo No. D-12

Description: Outfall 86-171.1 located on the west bank of the Santa Cruz River, south of SR-86

View: Northwest

Date: June 21, 2006

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	¼ 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
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

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 - 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"	Concrete	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	620+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	675+74	L
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