

STORMWATER MANAGEMENT PROGRAM (SWMP)

To fulfill requirements in the
Small Municipal Separate Storm Sewer System (MS4)
General Permit (AZG2002-002)

Pinal County Department of Public Works
Flood Control Section
December, 2005

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Introduction:

The purpose of this storm water management program (SWMP), is to outline Pinal County's effort to reduce surface water pollution in accordance with Arizona Pollution Detection and Elimination System. The primary focus of the SWMP will be the area identified as eligible for coverage under General Permit for discharge from small municipal separate storm sewer systems ((MS4's) to waters of the United States.

The eligible area (area) is Sections 3-5 12-14,23-25,36,34 and 31 Township 1 North Range 8 East of the Salt and Gila River Base and Meridian, Pinal County Arizona, Figure 1. The area is the urbanized fringe surrounding the city of Apache Junction. This is an area that is almost entirely developed through land splits rather than planned subdivision developments. As a result a majority of the land is parcels of one and a quarter (1 ¼) acres or larger. Another consequence of the area being developed predominantly through land splitting is the lack of storm water retention areas.

The land use within the area is predominantly single family housing on average lots of 1 ¼ acre. There is little vacant land available for development, therefore the plan will focus on the best managed practices (BMP'S) that address existing conditions.

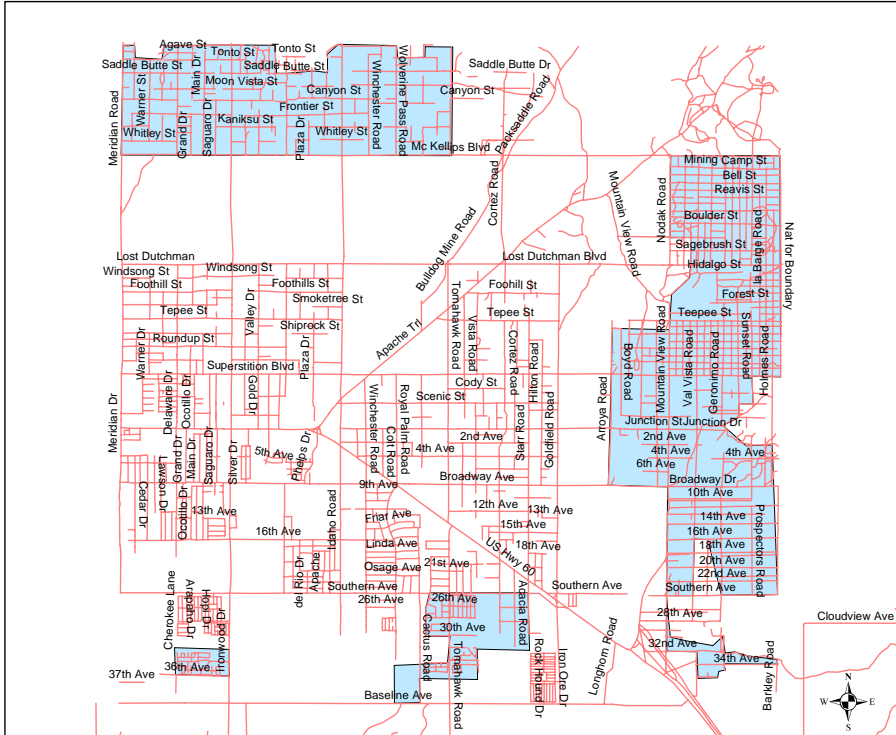


Figure 1 Eligible Area of Unincorporated Pinal County

Stormwater Management Plan

The plan will address the six minimum control measures.

1. Public Education and Outreach on Stormwater Impacts.
2. Public Involvement/Participation.
3. Illicit Discharge Detection and Elimination.
4. Construction Site Stormwater Runoff Control.
5. Post-Construction Stormwater Management in New Development and Redevelopment.
6. Pollution Prevention/Good Housekeeping for Municipal Operations.

However, due to the nature of the area the main focus will be on control measures 1, 2 and 3.

1. Public Education and Outreach on Stormwater Impacts

TABLE 1.1 Public Education and Outreach: BMPs and Measurable Goals

Permit Condition	BMP	Measurable Goal(s)	Start Date	Target Date for Achievement / Implementation
Part V.B.1.a.	Collect brochures, fact sheets, and other educational materials from federal, state, and local agencies or other MS4 web sites.	Pinal County staff will contact agencies and review web page quarterly to ensure that the most current information is available.	03/03	12/07
Part V.B.1.a.	Distribute information to the general public and to specific targeted audiences such as restaurants, service stations, developers, operators, homeowners associations, etc.	Pinal County staff will direct mail public service brochure direct mail during the first year and drop off information packets to targeted audiences. The permit area is predominately English speaking and therefore the brochures have been sent in English only. However, Spanish information is being considered for the materials that are available in the offices.	03/03	04/04
		Pinal County staff will update materials and distribute revised materials as they become available.	04/04	12/07
Part V.B.1.a.	Establish a web page for the Stormwater Management Program.	Pinal County staff will develop or work with a consultant to develop a Stormwater web page and bring it on-line. Staff has a webpage developed, which includes SWMP, NOI, AMDP, Drainage Manual and Drainage Ordinance, however due to server problems it has not been brought online. The date Target Date is changed from 07/05 to 07/06 for budget reasons.	03/03	07/06
		Pinal County staff will update or work with a consultant to update the webpage as necessary.	07/06	12/07
Part V.B.1.a.	Establish a library of educational materials on relevant Stormwater matters.	Pinal County staff will collect materials and distribute to schools and/or place the materials in public access areas, i.e. libraries, Pinal County Offices, etc. as	03/03	04/05

		needed. Pinal County staff will update these materials as needed and redistribute.	04/05	12/07
Part V.B.1.a.	Respond to verbal or written public inquiries, comments, or concerns, about illicit disposal of wastes, etc., and/or requests for information.	<p>Pinal County will identify a principal contact and devise the best method for handling public inquiries. Pinal County contact will review the information from the public and determine the best response. The Flood Control Section has been identified as the principle contact Elise Moore, EIT Section Chief, The first point of contact is the Public Works Receptionist, this is a rotating position therefore no name is identified.</p> <p>Appropriate responses may include: providing information over the phone, email or mail and referring information to Pinal County site inspectors for follow-up.</p>	03/03 03/04	03/04 12/07

TABLE 1.2 2. Public Involvement/Participation (continued) Public Education and Outreach: Additional Information

Permit Citation	Plan
Part V.B.1.b.i.	The permit area within Pinal County is almost entirely developed with single family housing and businesses but without heavy industry. An education and outreach program will be created and presented to the general population of Pinal County, school groups, and specific targeted audiences such as residential and commercial developers/ operators, restaurants, service stations, and/or homeowners associations. The general population will be made aware of the hazards of improper disposal of chemicals and household products such as, but not necessarily limited to, paints, solvents, pesticides, and animal waste. Targeted materials will be developed for the non-industrial business interests prevalent in the community and will be administered by Pinal County staff and volunteers.
Part V.B.1.b.ii.	Public education and outreach will be conducted by a variety of methods that may include in-service training programs, distribution of brochures, newspaper articles, Pinal County meetings, or meetings with homeowners associations. Volunteers, members of Pinal County Council, and/or paid Pinal County staff, as appropriate, will conduct meetings or deliver materials to targeted audiences. A Stormwater webpage will be added to Pinal County website. The webpage will address relevant stormwater topics. Documents related to the SWMP, and NOI will be made available to the public in Pinal County Public Works office during usual business hours.
Part V.B.1.b.iii.	Specific target audiences such as residential and commercial developers/operators, restaurants, service stations, and/or homeowners associations were selected because they are representative of the character and make-up of the community. Targeted audiences representative of business activities within the community will be made aware of hazards and costs of improper disposal of construction wastes, sedimentation and erosion, cooking grease, gasoline spills, etc., as appropriate to the industry.
Part V.B.1.b.iv.	At the end of the five-year permit term, Pinal County’s stormwater education message is expected to have reached: 100% of homeowners 25% of all school-aged children 80% of the construction/development community 75% of service stations 100% of restaurants
Parts V.B.1.b.v. and V.B.1.b.vi.	A list of measurable goals and dates scheduled to begin activities and to achieve the goals are specified in Table 1.1.
Part V.B.1.b.vii.	The Pinal County Flood Control Engineer, has ultimate responsibility for implementing and coordinating the education activities. He may delegate this authority to other Pinal County staff.

2. Public Involvement/Participation

TABLE 2.1

Public Involvement/Participation: BMPs and Measurable Goals

Permit Citation	BMP	Measurable Goal(s)	Start Date	Target Date for Achievement / Implementation
Parts V.B.2.a	Create activities for volunteer groups such as an Adopt-a Wash program and/or a Pinal County-wide rain gauge network	Pinal County staff will identify and encourage volunteer groups to participate in activities such as Adopt-a-Wash programs. A GIS mapping of the drainage facilities in the permit area have been mapped in preparation of the programs. The implementation date for the volunteer programs is 12/07. The County should be able to exceed this expectation by implementation of the programs sooner than 12/07.	05/03	12/07
		Volunteer resources to consider may include, but are not limited to, schools, civic groups, Scouts, etc. Once established, programs will continue through this permit period.	10/04	12/07
Parts V.B.2.a.	Respond to verbal or written public inquiries, comments, or concerns about illicit disposal of wastes, etc., and/or requests for information.	Pinal County will identify a principal contact and devise the best method for handling public inquiries. Appropriate responses may include: providing information over the phone, email or mail and referring information to Pinal County site inspectors for follow-up.	04/03	03/04
		The Flood Control Section personnel respond by phone and email, violations are sent by mail. The Inspections section Quality Assurance inspectors and Building Safety inspectors are utilized for follow up inspections	03/04	12/07

Parts V.B.2a.	Create activities for volunteer groups such as free disposal days / community cleanups	Pinal County staff will provide free dump access and pick up trash containers left on the roadside by volunteers. Free Dump days will be twice a year, approximately November and April. House Hold hazardous Waste / Waste Tire pick up days will be annually, typically in September. An annual schedule is available from Pinal County Public Works	04/03	12/07
Parts V.B.2.b.	Make the SWMP and Notice of Intent available to the general public.	Several copies of the SWMP are available for review. The public may have a copy if desired. The SWMP will be available on the website when the website is fully implemented.	03/03	12/05

TABLE 2.2
Public Involvement/Participation: Additional Information

Permit Citation	Plan
Part V.B.2.c.i.	Pinal County has long-established procedures for making the public aware of involvement and participation opportunities within the community. These opportunities are published in posted notices, newspapers, and/or listed on Pinal County webpage. Generally, Pinal County business meetings are open to the public and the public can attend and voice comments on the proceedings. All relevant public comments are considered. In some instances, the public is invited to apply to a committee or commission so that the citizens' ideas and voices can be provided to the elected officials. Interested applicants may apply in writing or via electronic applications. Applicants are interviewed by appropriate Pinal County staff and selected based on specific criteria.
Part V.B.2.c.ii.	Pinal County will provide opportunities for public involvement through programs such as Adopt-a Wash and/or rain gauge monitors. Members of these programs may be solicited from local schools, businesses, homeowner's associations, or any interested citizen of the community who may wish to participate. Citizens involved in the Adopt-A-Wash program would pick up trash in washes, and could potentially become involved in illicit discharge detection activities near the wash. Citizens would also monitor rain gauges and provide Pinal County with records of rainfall in their area. A GIS mapping of the drainage facilities in the permit area have been mapped in preparation of the programs. The implementation date for the volunteer programs is 12/07. The County should be able to exceed this expectation by implementation of the programs sooner than 12/07.
Part V.B.2.c.iii.	Pinal County website will have a contact/comment option. The extent of review and response will be determined by the volume and subject matter of comments. The methods to handle comments will be developed as described in measurable goals, see Table 2.1.
Part V.B.2.c.iv.	Notices of meetings, important documents such as the SWMP and the NOI will be available on Pinal County website as well as will be available to the general public at Pinal County Hall during usual business hours in accordance with established Pinal County procedures.
Parts V.B.2.c.v. and V.B.2.c.vi.	A list of measurable goals and dates scheduled to begin activities and to achieve the goals are specified in Table 2.1.
Part V.B.2.c.vii.	The Pinal County Flood Control Engineer, Elise Moore, is responsible for implementing and coordinating public involvement/participation activities.

3. Illicit Discharge Detection and Elimination

TABLE 3.1

Illicit Discharge Detection and Elimination: BMPs and Measurable Goals

Permit Citation	BMP	Measurable Goal(s)	Start Date	Target Date for Achievement / Implementation
Part V.B.3.a.	Encourage cleaning of commercial parking areas by those without first flush cleaning technology. *There are only a few parking lots within the permit area	Prior to onset of the summer monsoon, Pinal County staff will mail brochures to commercial property owners and developers without first flush cleaning capabilities them to clean impervious areas for the purpose of reducing contaminated wash-off.	03/06	12/07
Part V.B.3.b.	Stormwater generally drains overland into washes. Pinal County staff will prepare the maps with the help of consultants, if needed. GPS and/or other computerized applications will likely be used to map the stormwater system.	Pinal County utilized a consultant to map all the drainage facilities within the permit area.	03/04	12/07
Part V.B.3.c.	Pinal County is revising the Drainage Ordinance to address illicit discharge. Pinal County currently issues citations based on delegation agreement #00-0022 with ADEQ.	Pinal County Council will approve the Drainage Ordinance Pinal County staff will incorporate illicit discharge inspections into regular inspection duties and take reports on illicit discharge sightings and complaints . Enforcement action will be taken on those who violate the Drainage Ordinance in accordance with Pinal County's ordinance enforcement code . Pinal County Environmental Investigators currently use existing delegation agreement as an enforcement tool	07/03 03/04	07/03 12/07

TABLE 3.1 (continued)

Illicit Discharge Detection and Elimination: BMPs and Measurable Goals

Permit Citation	BMP	Measurable Goal(s)	Start Date	Target Date for Achievement / Implementation
Part V.B.3.d.	Pinal County will train employees in the detection, collection, and identification of illicit discharges. If discharges or dumping are discovered, appropriately trained Pinal County staff will determine if illicit discharging has occurred and, if necessary, will be collect samples and send the samples to appropriate facilities for analyses. Sampling will be performed using “in-the-field” test kits. When samples will be taken to a laboratory for analysis, the collection, preservation and analytical method will comply with the appropriate methods specified in the Arizona Department of Health Services rules.	Pinal County will develop a plan for systematic review of washes utilizing volunteers in programs such as Adopt-a- Wash and/or appropriate Pinal County staff. The plan will identify who will do various tasks, how these tasks will be done, what washes to inspect and how often. Pinal County staff and volunteers will assess wash condition and prioritize areas that appear more heavily impacted by illicit discharge activity. If offenders can be identified, notify offenders and hold offenders responsible for clean-up. Staff is using the information obtained form the GIS inventory of the washes to develop the plan.	03/03	12/07
			05/06	06/07
			03/06	12/07
Part V.B.3.e.	Notify Pinal County employees, businesses, and individuals of the hazards and costs of illicit discharges and improper disposal of waste through seminars and/or published and distributed information.	Pinal County staff will be trained on the hazards of improper waste disposal and dumping. Pinal County staff will identify what sectors of the public (by region, industry, neighborhood, etc.) are most likely to contribute illicit discharges to the storm sewer system. Pinal County staff will notify the identified sectors that there is a Drainage Ordinance prohibiting illicit discharges within Pinal County and provide literature identifying costs and hazards.	06/05	12/07
			10/05	06/06
			07/05	12/07
Part	Trained volunteers (through an “Adopt a Wash”	Pinal County Staff and trained volunteers will	06/04	12/07

V.B.3.f.	program) and Pinal County staff will conduct dry weather field screening on a weekly or biweekly basis. When screening identifies the potential for a illicit discharge, trained Pinal County staff will perform a follow-up investigation within 15 days of receiving the information to study the information, to determine the source, and to take appropriate action to remedy the situation.	inspect 10% of the outfalls identified in the Existing Conditions report and GIS information. Currently only Pinal County staff have been used for screenings because the volunteer program has not yet been fully implemented.		
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3. Illicit Discharge Detection and Elimination (continued)

TABLE 3.2

Illicit Discharge Detection and Elimination: Additional Information

Permit Citation	Plan
Part V.B.3.g.i.	Pinal County will utilize dry weather field screening by volunteers and Pinal County staff and other periodic inspections/screening by Pinal County staff to identify illicit discharges
Part V.B.3.g.ii.	Pinal County is developing the authority to prohibit illicit discharges through its revised Drainage Ordinance. The Drainage Ordinance is currently being revised by a consultant and should be effective by July, 2006. The Drainage Ordinance will place restrictions on illicit discharges, construction site waste/runoff, and post-construction design and long-term maintenance. Details on the portion of the Drainage Ordinance that will address illicit discharges is located in Table 3.1 BMP for Part V.B.3.c.
Part V.B.3.g.iii.	Pinal County intends to enforce against illicit discharges that occur within Pinal County boundaries and will fine the entity to the maximum extent possible. Pinal County has jurisdiction over the land within Pinal County boundaries. A map depicting the jurisdictional boundary for inspection and enforcement purposes is in Attachment 1.
Part V.B.3.g.iv.	Pinal County considers the discharges listed in Part I.C.2. of the permit to be allowable non-stormwater discharges. These discharges will be allowed to the small MS4 unless Pinal County identifies them as a significant contributor of pollutants to the MS4.
Part V.B.3.g.v.	Pinal County considers non-commercial or charitable events such as charity car washes to be insignificant contributors of pollutants and therefore, these discharges are not prohibited.
Part V.B.3.g.vi.	Pinal County will hold a training course for Pinal County employees that involve class and field work. Pinal County also will inform the staff about the proper channels for relaying information about illicit discharges.
Part V.B.3.g.vii.	Pinal County will place information on prohibited discharges on Pinal County website and distribute information brochures in key areas of Pinal County (such as realtor offices, libraries, with the water or sewer bill).
Parts V.B.3.g.viii. and V.B.3.g.ix.	A list of measurable goals and dates scheduled to begin activities and to achieve the goals are specified in Table 3.1.
Part V.B.3.g.x.	The Pinal County Flood Control Engineer, Elise Moore, is responsible for overseeing implementing and coordinating illicit discharge detection and elimination activities. She may delegate this authority to other Pinal County staff persons.

4. Construction Site Stormwater Runoff Control

TABLE 4.1

Construction Site Stormwater Run-off Control: BMPs and Measurable Goals

Permit Citation	BMP	Measurable Goal(s)	Start Date	Target Date for Achievement/ Implementation
Part V.B.4.a	<p>Pinal County currently requires construction site developers/operators to submit a Stormwater Pollution Prevention Plan (SWPPP) that includes BMPs for management of the construction site prior to beginning construction. The SWPPP must include a combination of structural and/or non-structural BMPs appropriate to the site and community. The requirements will be extended to developers of one or more acres.</p> <p>Pinal County uses a checklist to assess the developer's/contractor's plans. Upon proof that the applicant submitted their NOI to EPA and/or ADEQ a grading permit will be issued by Pinal County.</p>	<p>Pinal County staff will inform operators in pre-construction meetings that a SWPPP will be required for 1 acre and larger sites.</p>	03/03	12/06
Part V.B.4.b	<p>Pinal County has a grading permit that details how and under what conditions grading may occur. The grading permit and the Drainage Ordinance provide the regulatory mechanisms to prohibit erosion waste on construction sites within the jurisdiction of Pinal County. The Drainage Ordinance, currently in revision, addresses discharge violations that occur during construction activities. The Drainage Ordinance also has provisions for authority to inspect construction sites</p>	<p>Pinal County staff will review all current Pinal County ordinances related to grading and construction.</p> <p>Additional language will be added to the Drainage Ordinance or a new ordinance will be developed and implemented, if needed. and Pinal County staff will incorporate construction site inspections into regular inspection duties and take reports on illicit discharge sightings and complaints.</p> <p>Enforcement action will be taken on those who violate the Drainage Ordinance in accordance with Pinal County's ordinance enforcement code.</p>		

TABLE 4.1 (continued)

Construction Site Stormwater Run-off Control: BMPs and Measurable Goals

Permit Citation	BMP	Measurable Goal(s)	Start Date	Target Date for Achievement/ Implementation
Part V.B.4.c.	Pinal County will consider the “site plan” to be the pre-construction meetings to describe elements that must be included in the SWPPP to address the Pinal County’s Drainage Ordinance. Pinal County will use a checklist to verify completeness of SWPPPs, call much time staff should spend reviewing the plans, filing, and tracking the operator to confirm that the SWPPP is in compliance with Pinal County’s Drainage Ordinance, then send a form letter to the operator to confirm the telephone contact.	<p>Pinal County staff will develop a checklist for SWPPP completeness using proposed Drainage Ordinance language. In the meantime, the Pinal County will use ADEQ’s checklist for completeness of the SWPPP prepared for the ADEQ Construction General Permit.</p> <p>Pinal County will establish protocols for who reviews the plans, how much time staff should spend reviewing the plans, filing and tracking</p>		<p>02/06</p> <p>02/06</p>
Part V.B.4.d.	The Drainage Ordinance also has provisions, in its current form, for authority to inspect construction sites. Site inspections are performed by Public Works inspectors. Inspections will be extended to include sites larger than 1 acre.	Pinal County Council will approve the Drainage Ordinance.	03/07	

4. Construction Site Stormwater Run-off Control (continued)

TABLE 4.2

Construction Site Stormwater Run-off Control: Additional Information

Permit Citation	Plan
Part V.B.4.e.i.	Pinal County prohibits erosion and ensure proper management of wastewater on construction sites per its Drainage Ordinance and the draft Drainage Ordinance. (See measurable goals under the development of the Stormwater Ordinance under Table 4.1) Pinal County plans to adopt restrictions particularly for concrete truck wash-out, trash and human wastes on the construction site.
Part V.B.4.e.ii.	The Grading Ordinance provides Pinal County with the authority to stop construction and to fine the operator up to \$2500 per day for violations of the ordinance, plus clean up costs. Pinal County proposes to include similar conditions in the Drainage Ordinance. The Drainage Ordinance is currently being reviewed by Pinal County Council and should be effective by April, 2003. The Stormwater Ordinance will place restrictions on illicit discharges, construction site waste/runoff, and post-construction design and long-term maintenance. Details on the portion of the Drainage Ordinance that will address construction site waste/runoff is located in Table 4.1 BMP for Part V.B.4.d.
Part V.B.4.e.iii.	The procedures for Site Inspections and site plan review along with enforcement of control measures are specified in Pinal County Zoning Code Revised. These procedures are included in Attachment 2.
Part V.B.4.e.iv.	BMPs for Public Information and Outreach on Drainage Impacts and for Public Involvement/Participation address methods by which the public can report on construction site activities to Pinal County.
Parts V.B.4.e.v. and V.B.4.e.vi	A list of measurable goals and dates scheduled to begin activities and to achieve the goals are specified in Table 4.1.
Part V.B.4.e.vii.	The Pinal County Flood Control Engineer, Elise Moore, is responsible for overseeing construction site activities. She may delegate this authority to other Pinal County staff .

5. Post Construction Stormwater Management in New Development and Redevelopment

TABLE 5.1

Post Construction Stormwater Management: BMPs and Measurable Goals

Permit Citation	BMP	Measurable Goal(s)	Start Date	Target Date for Achievement/ Implementation
Part V.B.5.a.	Pinal County is developing a Drainage Design Manual. The study and Drainage Criteria Manual can be used to develop other relevant stormwater run-off and drainage ordinances that may not yet be written and approved. Inspectors will be trained to look for compliance with the Drainage Ordinance's and Drainage design criteria.	Pinal County staff will review all current Pinal County ordinances related to long-term drainage control. Additional language will be added to the Drainage Ordinance or a new ordinance will be developed and implemented, if needed.	06/03	12/07
		Enforcement action will be taken on those who violate the Drainage Ordinance in accordance with the Pinal County's ordinance enforcement code.	10/05	06/06
		Pinal County staff will train building inspectors to judge compliance with the Drainage Ordinance's design criteria.	03/05	12/07
		Pinal County staff will create a brochure for master-plan community designers describing Pinal County's Drainage Ordinance and long-term goals for soil stabilization and vegetation preservation.	05/06	12/07
		Pinal County will investigate options for rewarding developments that increase vegetation on a new development or redevelopment site.	05/06	12/07
Part V.B.5.b.	Pinal County engineering department and planning department will meet quarterly to discuss a holistic approach to management of water quality and water quantity.	Pinal County staff will investigate training opportunities for water management issues.	06/03	06/04
		Pinal County will create a Pinal County staff panel to address water management issues. The panel will update policies and provide technical input for the Drainage Ordinance and revisions to the Drainage design criteria on an annual basis.	06/06	12/07

TABLE 5.1 (continued)

Post Construction Stormwater Management: BMPs and Measurable Goals

Permit Citation	BMP	Measurable Goal(s)	Start Date	Target Date for Achievement/ Implementation
Part V.B.5.c.	Pinal County will use the Drainage Manual’s design criteria to address stormwater quality and quantity giving consideration to adjacent city and county ordinances and to the impact downstream. The Drainage Ordinance will include a maintenance requirement for structural or nonstructural BMPs, i.e., detention basins, sediment run-off controls, first flush devices, landscaping or vegetation restoration, etc. Pinal County will have the authority to fine owners if post development runoff impacts water quality.	Pinal County staff will review all current Pinal County ordinances related to long-term drainage control.	09/05	09/05
		Enforcement action will be taken on those who violate the Drainage Ordinance in accordance with the Pinal County’s ordinance enforcement code.	04/05	12/07
		Additional language will be added to the Drainage Ordinance or a new ordinance will be developed and implemented, if needed.	01/06	06/06
Part V.B.5.d.	The Drainage Ordinance will require that developers institute long-term operation and maintenance BMPs. At change of ownership, the new owner must sign a statement that the new owner is aware of the long-term operation and maintenance BMPs as required by the Drainage Ordinance and will continue to institute them.	<p>Pinal County will educate large developers about the Drainage Ordinance long-term maintenance requirements during pre-construction meetings There is little opportunity for large development in the Permit Area</p> <p>When Pinal County receives the Notice of Termination (by checking the ADEQ Smart NOI database), Pinal County will send the operator a letter to remind them of the requirement to sign a statement that BMPs will be maintained at the site.</p>	<p>04/03</p> <p>04/06</p>	

5. Post Construction Stormwater Management in New Development and Redevelopment (continued)

TABLE 5.2

Post Construction Stormwater Management: Additional Information

Permit Citation	Plan
Part V.B.5.e.i.	Pinal County will include post-construction stormwater management measures in its Drainage Ordinance. Pinal County plans to establish a technical committee of water quantity and quality staff for the purpose of integrating requirements of both programs. The committee will use the Drainage Criteria Manual as a basis for evaluating appropriate recommendations for the Drainage Ordinance. Pinal County is interested in protecting and maintaining vegetated washes and may include wash protection in the Drainage Ordinance.
Part V.B.5.e.ii.	Pinal County is developing the authority to control post-construction runoff through its proposed Drainage Ordinance. The Drainage Ordinance is currently being reviewed by Pinal County Council and should be effective by April, 2006. The Drainage Ordinance will place restrictions on illicit discharges, construction site waste/runoff, and post-construction design and long-term maintenance. Details on the portion of the Drainage Ordinance that will address illicit discharges is located in Table 5.1 BMP for Part V.B.5.c.
Part V.B.5.e.iii.	Compliance procedure are specified in Pinal County Zoning Code Revised. These procedures apply to new development and redevelopment, and may change depending upon Drainage Ordinance language and updates from Pinal County's technical committee.
Part V.B.5.e.iv.	BMPs for Public Information and Outreach on Drainage Impacts and for Public Involvement/Participation address methods by which the regulated community (developers, architects, and the public) may learn about project designs that minimize water quality impacts. Drainage Ordinance requirements will be explained initially during the development review stage, during preconstruction conferences, and as required thereafter based on developer needs, problems uncovered during site inspections, or Drainage Ordinance modification.
Parts V.B.5.e.v. and V.B.5.e.vi.	A list of measurable goals and dates scheduled to begin activities and to achieve the goals are specified in Table 5.1.
Part V.B.5.e.vii.	The Pinal County Flood Control Engineer, Elise Moore, is responsible for overseeing post construction stormwater management. She may delegate this authority to other Pinal County staff.

6. Pollution Prevention/Good Housekeeping for Municipal Operations

TABLE 6.1

Pollution Prevention/Good Housekeeping: BMPs and Measurable Goals

Permit Citation	Part V.B.6.a.ii.	Measurable Goal(s)	Start Date	Target Date for Achievement/Implementation
Part V.B.6.a.i.	Revise existing Pinal County policies and documents related to pollution prevention that includes municipal maintenance activities, schedules, and inspection procedures for structural and nonstructural controls to reduce floatable and other pollutants dumped into washes, etc. The Pinal County will select knowledgeable staff members to work on a revised Pinal County Pollution Prevention Plan. The revised Pinal County Pollution Prevention Plan will address storage of materials, proper materials handling, drainage and drywell cleaning procedures and in-house safety/environmental inspections.	Pinal County staff will meet to discuss current applicable documents and procedures. The initial meeting will determine what further meetings are necessary. Pinal County anticipates that the meetings will occur every 6 months.	01/04	01/06
		Pinal County will select a knowledgeable staff member as a trainer	05/06	05/06
		An initial training will be scheduled upon completion of a revised Pinal County pollution prevention plan. Refresher training will occur on an annual basis. New employees will be trained along with training on safety and other aspects of Pinal County Pollution Prevention Plan.	09/06	12/07
Part V.B.6.a.ii.	Pinal County will identify roadways needing drainage repair and will incorporate water quality improvements into new drainage designs per the Drainage Criteria Manual.	Pinal County transportation department will be asked to assess drainage system for oil, grease, odor, algal growth and trash and to provide the pollution prevention coordinator with information on problematic areas.	07/03	12/07

		monsoon season. Maintenance of erosion control measures will be conducted when necessary.		
Part V.B.6.a.iii.	Pinal County will use existing waste disposal services to remove waste. Floatables and other debris collected at municipal sites and as part of drainage clean-up efforts will be taken to dumpsters that are served by Pinal County's waste disposal services.	As part of the illicit discharge detection efforts, volunteers and staff will remove floatables from washes. These persons will be educated in proper methods for disposal of floatable and other waste materials. Floatables will be removed in conjunction with dry weather field screenings.	09/04	12/07
Part V.B.6.a.iv.	Pinal County will utilize a street sweeper in the permit area to remove sediment buildup and large debris from curb gutters.	District 2 maintenance will focus on arterials and collectors. They will try to sweep once per month on the major roads, and as needed on residential.		

TABLE 6.2
Pollution Prevention/Good Housekeeping: Additional Information

Permit Citation	Plan
Part V.B.6.b.ii	The following municipal operations impacted by this operation and maintenance program are: Pinal County Department of Public Works
Parts V.B.6.b.iii. and V.B.6.b.iv.	The employee training will include aspects of the revised Pinal County Pollution Prevention Plan that is to be developed by Pinal County staff. BMPs in Table 6.1 address various aspects of employee and volunteer training. We intend to train 3 section chiefs: Inspection, Design, and Flood Control. As well as providing training to inspection staff and review staff.
Part V.B.6.b.i.	A list of measurable goals and dates scheduled to begin activities and to achieve the goals are specified in Table 6.1.
Part V.B.6.b.v.	Pinal County Flood Control Engineer, Elise Moore, is responsible for implementing and coordinating employee training and pollution prevention activities. She may delegate this authority to other Pinal County staff.

Qualifying State or Local Program

Pinal County has developed new best management practices in response to the need to apply for a municipal stormwater discharge permit. Pinal County is not aware of any qualifying local or state programs that would adequately address the requirements of the Small MS4 General Permit.

Sharing Responsibility

Pinal County will have the responsibility to implement all measures within this SWMP.

Reviewing and Updating the SWMP

Pinal County will review the SWMP in June of each year starting in June 2004 and evaluate the implementation status of the SWMP components as well as the effectiveness of each component or combination of components. The Pinal County will determine how the SWMP needs to be revised, if at all. If the SWMP needs to be revised, Pinal County will notify ADEQ of any additions. If components of the SWMP need to be replaced, Pinal County will submit to ADEQ the proposed revisions with an explanation of why the practice is ineffective and why the replacement is expected to achieve the goals of the management practice.

Monitoring

Pinal County will evaluate program compliance, the appropriateness of identified BMPs, and progress towards achieving identified measurable goals. Pinal County storm sewer system drains to several named and unnamed washes. At this time, a Total Maximum Daily Load (TMDL) has not been established for any of the receiving water. Also, the named and unnamed washes are not listed on Arizona's 303(d) list. Therefore, Pinal County will not sample and analyze the discharge from the small MS4 at this time.

Annual Reports

Pinal County will submit an annual report to ADEQ by September 30, 2004 for the period of time between March 30, 2003 and June 30, 2004. Starting in 2005, Pinal County will submit additional annual reports by September 30 of each year for the preceding period of July 1 through June 30. Pinal County will report on the information required in Part V.G. of the permit.

Attachment 1 - Jurisdictional Boundaries Map

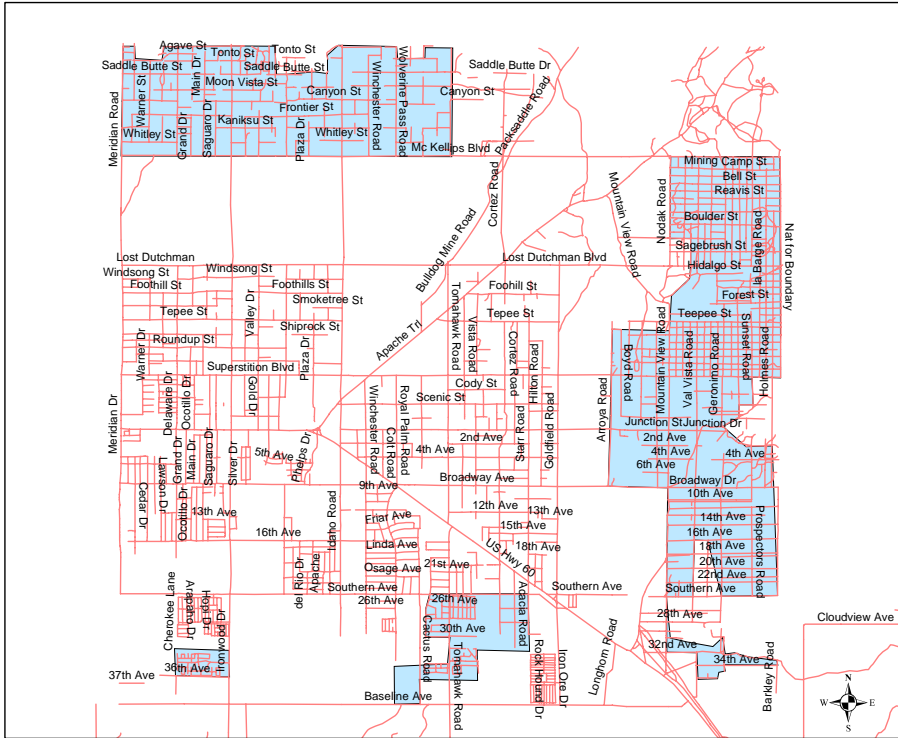


Figure 2 Eligible Area of Unincorporated Pinal County

Attachment 2 - Site Inspection Procedures

The Stormwater Ordinance will be published as part of Pinal County Environmental Ordinances within the public utilities sub-section. The Stormwater Ordinance will cite the authorities of Pinal County to control sediments, erosion and waste (particularly concrete wastes and human wastes) and will also refer to the civil penalties associated with non-compliance. A schedule for publishing this Stormwater Ordinance is explained in Tables 4.1 and 4.2. Pinal County will inspect construction sites with high priority (large sites and sites within 0.1 mile of the river) within 2 days of receipt of the NOI submitted to ADEQ. If at the time of inspection, there are any stormwater infractions, Pinal County will refer these non-compliance activities to ADEQ and issue a stop-work order on site until appropriate water protection measures have been installed. The inspector will communicate with site operators during construction activities on-site. If Pinal County finds any further infractions, Pinal County will suspend the operator from any construction activities within Pinal County's jurisdiction for the next 3 days.

Procedures for site inspection

Inspections will begin in the office with a review of maps and familiarization with area roads, land uses and natural features. Inspectors will then review any documents pertaining to the development of the property such as SWPPPs, site plan maps, other permits granted to the builder, records of previous compliance, or NOIs. Inspections will be conducted according to Pinal County inspection manual which will be available in January 2006. Prior to January 2006, inspectors will conduct the inspection as described below:

1. Introduce himself as Pinal County inspector and communicate with the operator the types of things the inspector is looking for while on the inspection.
2. Locate the on-site copy of the SWPPP and become familiar with any changes that have been made to the SWPPP.
3. Walk (or slowly drive) the perimeter of the site and note outfalls to waters and/or drainage channels.
4. Inspect outfalls for signs of wastes and sediment. Document any waste or sediment.
5. Inspect active and inactive portions of the construction areas for properly installed BMPs and material storage.
6. Communicate with the operator the status of compliance and if this site will be referred to ADEQ for further investigation.

Procedures for Site Plan Reviews

The current fiscal year 2003 budget does not contain monies for site plan review. Beginning in 2004, Pinal County Departments will coordinate to determine what resources will be devoted to plan reviews. Procedures will vary depending on the department conducting the review. Pinal County expects that the procedures will be similar to those described below:

1. Receive information from Planning and Development Department that the operator has applied for a grading permit on a site larger than 1 acre.
2. Review maps and development proposal.
3. Identify waters of the US, drainages, canals and any other conveyance system on the site, then look for drawings or descriptions of the materials or practices being used to prevent runoff, spills and destruction of flow channel's physical properties.
4. If BMPs are in place and considered appropriate for the duration of the construction activities, rain patterns during the time of year construction is taking place, soil conditions and any other local

concerns that Pinal County/reviewer is aware of, the operator will receive a phone call telling him that the county has reviewed his plan and according to his plans and maps, the pollution prevention procedures will not adversely impact water quality OR he will receive a call (if plans are insufficient) that indicates that his site does not appear to protect water quality. If the operator agrees to amend his practices, the reviewer may use his discretion as to whether the changes will not adversely affect water quality.

5. Phone calls will be followed by a letter or postcard from Pinal County to the operator. Citizens will be able to send comments via email to the inspection staff with a link on Pinal County's website. Citizens visiting Pinal County hall with a complaint will be asked to fill out an inspection request form if there are no inspectors available to speak with the citizen. Inspection staff will respond to citizen comments before the end of the construction period assuming that the comment is provided 48 hours before the construction activity is scheduled to be completed.

Attachment 3 – Pinal County Drainage Ordinance

Attachment 4 – Draft Revised Pinal County Drainage Ordinance