

Arizona Department of Environmental Quality
Water Quality Improvement Grant Program

Water Quality Improvement Grant Manual



*"We call upon
the waters that rim
the earth, horizon to horizon,
that flow in our rivers and streams,
that fall upon our gardens and fields, and we
ask that they teach us and show us the way."*

- Chinook Blessing Litany



Janet Napolitano, Governor
Stephen A. Owens, ADEQ Director

**The Arizona Department of Environmental Quality
Water Quality Division**

Presents...

The Water Quality Improvement Grant Manual



Funding provided by the United States Environmental Protection Agency



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www.azdeq.gov/environ/water/watershed/fin.html

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"No person shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving EPA assistance on the basis of race, color, national origin, or on the basis of sex in any program or activity receiving EPA assistance under the Federal Water Pollution Control Act, as amended, including the Environmental Financing Act of 1972"

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Chapter 1 – General Information

The Arizona Department of Environmental Quality's (ADEQ) Water Quality Improvement Grant Program (WQIGP) administers funds from the United States Environmental Protection Agency (EPA) for implementation of nonpoint source management projects. The distribution of grant funds from EPA is provided pursuant to Section 319(h) of the Clean Water Act.

These federal funds are granted to individuals, as well as public and private entities for implementing on-the-ground water quality improvement projects that reduce nonpoint source pollutant loadings to surface or ground water in Arizona.

Nonpoint source pollution occurs when rainfall, snowmelt or irrigation runs over land or through the ground, picks up pollutants and deposits them into rivers, lakes and coastal waters or percolates into ground water. Agriculture, forestry, grazing, septic systems, recreation activities, urban runoff, construction, and physical changes to stream channels are examples of potential sources of nonpoint source pollution.

Nonpoint source pollution can be separated into two categories: "people pollution" and naturally occurring conditions. These grants are aimed at reducing the human caused pollution by applying Best Management Practices (BMPs) or by taking other actions to reduce pollutant loadings. Some examples of human caused pollution include nutrients and pesticides from home and agricultural applications, pet wastes, grazing or logging practices that destroy the natural filtration from riparian areas, construction of roads and buildings that increase sediment discharges, inadequate septic systems, mine waste piles, and even such seemingly benign acts as cars being washed in driveways.

Goals and Outcomes

This Grant Program supports ADEQ's Water Quality Division mission by providing grant funds to reduce the generation and impacts of pollutants discharged to surface and ground water. The ultimate vision is for all of Arizona's waters to be clean and safe.

Water Quality Division Mission Statement

The mission of the Water Quality Division is to protect and enhance public health and the environment by ensuring safe drinking water and reducing the impact of pollutants discharged to surface and ground water.

The WQIGP has shifted the focus of its role from that of “Funder” to an “Investor.” ADEQ’s goal is to be able to measure quantifiable improvements in surface water quality. This can be achieved by investing in projects and practices that produce *measurable reductions in source loadings* from nonpoint sources.

Other beneficial outcomes that this grant program intends to promote include:

- Active citizen involvement in project implementation
- Education and public awareness of water quality issues
- Implementation of sufficient, economically and scientifically sound management practices that result in the desired water quality benefits
- Provision of long-term benefits
- New innovations for nonpoint source pollution clean-up
- Funding projects in a new watershed or with new partners
- Utilization of the opportunity to work with active partners as funding and human momentum become available
- Coordinated watershed approaches
- Project will have a measurable effect on the watershed

Scope of the manual

This manual describes the Water Quality Improvement Grant funding process from pre-proposal submission, through awarding of a grant, to completion of the project and evaluation of its effectiveness. This manual is designed as a tool to make the application process uniform, simple, and fair for all applicants.

A new pre-proposal step has been added to the process to facilitate the development of meaningful and competitive projects. It is hoped that this step will help applicants focus projects to achieve the highest potential for reducing nonpoint source pollutant loadings and other identified beneficial outcomes (see Chapter 4).

General Guidelines

Requirements for Investments

A grant application must describe how the project will accomplish the following to be considered eligible:

- Produce reductions in pollutant loadings from nonpoint sources
- Implement sufficient, economically and scientifically sound management practices that result in the desired water quality benefits
- Have an on-the-ground implementation component within the state of Arizona
- Have an education and outreach component
- Provide at least 40 percent of the total project costs as non-federal match
- Support ADEQ's Water Quality Division mission
- Be eligible under applicable state and federal regulations
- Comply with the application process described in the Water Quality Improvement Grant Manual.

Reasons Projects Would **Not** Qualify for Investment

A grant application would not be considered if the following factors apply:

- Actions necessary to meet requirements in draft or final permits, including "end of pipe" treatments. ("Permits include draft or final National or Arizona Pollutant Discharge Elimination System (NPDES or AZPDES) permits, or EPA's stormwater regulation permits)
- Reductions in pollutants contributed solely or primarily from point sources.
- Actions that would relieve enforcement, compliance, or notice of violations.
- Projects that are considered day-to-day operations or maintenance.
- Projects specified prior agreements such as an allotment plan. However, "enhancements" to a permit or allotment requirements may be considered for funding.
- Studies, research, education, and data collection that are not part of an on-the-ground implementation project.

- Projects that focus primarily on water *quantity* issues. However, water quantity and water quality improvements go hand in hand and will be evaluated on a case-by-case basis.
- Projects that do not control the source or direct cause of pollution. The outcome would be temporary relief with no long-term benefits.

Eligible Applicants

Grant funding is far reaching. Anyone can apply. Applications have been accepted from individuals, tribal authorities, universities, government entities, environmental groups, and watershed partnerships.

Non-Federal Match Requirement

All applications must provide a minimum 40 percent (40%) non-federal match.

- Non-federal match funds may be cash, goods, equipment usage, and/or services. Some examples of items and in-kind services that may contribute to the non-federal match requirement include: cash, in-kind services such as donated labor, office space, equipment usage, existing building usage, and base salaries of existing employees.
- Match sources and/or activities must be pertinent to the proposed project.
- Match amounts must be fully identified in the proposed Budget (see Chapter 4).
- Entity providing match and associated cost must be identified.
- Federal agencies must be able to provide matching funds from non-federal sources. Federal salaries may not be used for match (and will not be reimbursed as project expenditures).

Note: All matching fund contributions or expenditures must occur within the effective dates of the Grant Agreement. ADEQ has the right to disallow contributions determined inappropriate or unreasonable.

Important Notes

- Payments are made on a cost reimbursement basis. Grantees must provide assurance that the work has been completed (receipts, invoices, etc.) in order to receive reimbursement.
- Administrative costs associated with the project must not exceed 10 percent (10%) of the requested funding.
- More than one project application per applicant may be submitted.
- Applicant must be able to demonstrate legal authority to implement and maintain the improvements through one of these ways:
 - Ownership of the land;
 - Management of the land through lease, fee, or permit agreement and obtain written approval from the property owner; or
 - Letters of agreement from land owners.
- Projects should be completed in two years or less. ADEQ may be able to finance projects lasting up to five years if it is clearly justified that a period greater than two years is necessary.
- A grant must be awarded and a grant agreement executed before a project can be started.
- Equipment purchased as part of the project may remain with the grantee at the end of the project period unless it is determined in writing that the equipment should be returned to ADEQ.
- ADEQ may award 319 grants outside of this competitive process.

Chapter 2 – Grant Cycle

Grant Application Process

The Water Quality Improvement Grant Process can be defined by a series of steps:

- Request for Applications
- Workshops
- Pre-proposal
- Grant application
- Project review and selection
- Special condition agreements
- Execution of grant agreements
- Ongoing site visits and evaluations

Request for Grant Applications

The distribution of a Water Quality Improvement Grant Program Request for Grant Applications is the first step in each grant cycle and will be sent to everyone on the program's distribution list. The request announces the approximate amount of funds available, pre-proposal submittal due date (see Chapter 3 for pre-proposal criteria), final application due date, anticipated date awards will be made, a list of grant workshops, and other pertinent information specific to a grant cycle.

Information is also on the Water Quality Improvement Grant Program's website at www.azdeq.gov/environ/water/watershed/fin.html. You do not have to be on the mailing list to submit a grant application, but it will help assure that you have the most up-to-date materials. To be added to the mailing list, contact ADEQ staff or add your name to the mailing list by visiting the website address listed above.

Workshops

The Water Quality Improvement Grant staff conducts workshops statewide to meet with interested applicants. At the workshops the Grant staff will emphasize the outcome-based approach for investments. It is important that the application clearly defines the potential outcomes associated with project implementation. What are we buying and what is the likelihood that we will get that result?

The Water Quality Improvement Grant Program is committed to investing in projects that have outcomes of watershed restoration where water quality impairments have been identified by ADEQ. In order to focus the limited dollars available, priority will be given to projects that are supported in various water quality improvement plans such as a total maximum daily load (TMDL) implementation plan or a watershed-based plan.

Priority will also be given to projects that can provide measurable outcomes such as estimated load reductions. The goal is to provide proof that the investments made through the Water Quality Improvement Grant Program have outcomes that are beneficial to water quality improvement in Arizona.

Therefore, projects should include details concerning how successful the implementation was in reducing target pollutants. At the workshop staff will discuss potential methods of verification.

At the workshop information will be provided about past projects that have been effective in reducing pollutants and the best management practices (BMPs) associated with these projects.

Guidelines concerning the grant process will be discussed with the applicants. Although these guidelines are covered in this manual, staff will discuss each step of the process in some detail and encourage questions. The intent is to ensure that applicants have the most up to date information available.

To find out if a stream or lake is impaired, visit ADEQ's website at www.azdeq.gov/enviro/water/assessment/assess.html to obtain Arizona's latest *Integrated 305(b) Assessment and 303(d) Listing Report*.

Pre-proposal / Project Summary

Starting with Water Quality Improvement Grant Cycle 10 (2008), interested applicants can submit a Pre-proposal to ADEQ. See Chapter 3 for details and requirements.

Grant Application

An official grant application can be downloaded from ADEQ's website at: www.azdeq.gov/enviro/water/watershed/fin.html. The grant application and instructions are included as Appendix A. The Grant application includes the following information:

- Grant Application and Signature Page
- Project Summary / Pre-Proposal
- Plan of Action
- Location Information
- Land Ownership
- Affected Waters
- Project Longevity
- Education and Outreach
- Key People and Partners
- Water Quality Improvement Plans
- Workplan, Steps, and Milestones
- Budget
- Verification Methods
- SHPO Form

Project Review and Selection

The review and selection process begins after the grant application submittal deadline. During review, your application will be held confidential. The Grant Program staff will first review your application to ensure that it is eligible for funding and all required components are present. ADEQ will notify applicants if the eligibility requirements are not met.

During the evaluation process, technical evaluators review the projects and formulate questions. Applicants may be requested to supply additional information and may also be asked to revise their application based on the new information submitted.

An evaluation committee will review all of the projects and recommend for funding the projects that most closely meet the Grant Program's priorities, goals, and outcomes and are most likely to successfully achieve proposed outcomes. In evaluating applications the evaluation committee will consider these three basic questions:

- 1) What water quality outcomes are ADEQ buying?
- 2) What is the likelihood those outcomes will be achieved?
- 3) Is this the best use of WQIG money?

Awards are limited by the amount of funding available, which fluctuates yearly; therefore, all qualifying projects may not be funded. In addition, grant management performance will be considered in future grant applications.

Applicants will be notified as to whether or not they received a grant award after the evaluation process is completed. After evaluations are completed, all applications and the associated evaluations will be made available to the public. If you believe that any of the information contained in your application should be held confidential you must designate that information as "confidential" in your application, and provide an explanation as to why it should be held confidential.

If an applicant does not receive a grant award, the applicant may request a meeting with the Water Quality Improvement Grant Program Manager to discuss the application and evaluation. Applicants also have the right to protest the award decision. A letter of protest should be written within 30 days from the date of notification receipt. Protest letters must be sent to the ADEQ Water Quality Division Director along with a copy to the Water Quality Improvement Grant Program Manager to the following address:

Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

The Water Quality Division Director will review the protest and the grant file and provide a written decision on the protest.

Special Condition Agreements

In the contracting phase, ADEQ may need to identify special conditions specific to each project. Special Conditions supplement the general Grant Agreement Terms and Conditions and are specific to each grant.

Upon award, grantees will receive a list of technical questions to elaborate on federally required information. All projects will be required to provide the requested information within 60 days of contract execution. Projects dealing with Nitrogen, Phosphorous, and Sediment will be required to provide further data as needed and at the end of the project.

Grant Execution

- Once Special Conditions have been developed and agreed upon, the WQIGP will issue two copies of the Grant Agreement to the applicant (now referred to as the grantee). The grantee must sign both copies of the Agreement and return them to the WQIGP within 30 days of receipt. In signing the Grant Agreement, the grantee agrees to all Terms and Conditions as listed in Appendix F. The WQIGP will execute the Grant Agreement and return an original to the grantee.
- The grantee is required to do the following after they are notified of a grant award.
- Submit a Certificate of Insurance (described in the *Grant Agreement Terms and Conditions 6.2*).
- Set up a project file to maintain a record of all correspondence, receipts, invoices, and copies of all reports and documents associated with the project (see *Grant Agreement Terms and Conditions 3.5*).
- Establish a separate bank account for the deposit of grant funds, carrying the name and number of this project (see *Grant Agreement Terms and Conditions 4.3.1*).
- Be aware of and comply with the *Disadvantaged Business Requirements* located at the end of this chapter. If you will be using sub-contractors to perform work under the Grant Agreement, you must make an effort to recruit disadvantaged businesses, document those efforts, and report this information to ADEQ annually.

Please note: Work cannot be started on a project until both the Grant Agreement is executed and a Certificate of Insurance is submitted to ADEQ.

Site Visits and Evaluation

Shortly after award, the grantee will be contacted by phone or e-mail by their assigned ADEQ Project Manager. Their Project Manager will serve as their primary contact throughout the duration of the grant. Project managers make sure that the grantee is complying with the terms and conditions of the grant, administrate the grant by approving all required documentation, provide technical assistance and support when needed, and conduct ongoing site visits and a final site evaluation. See Chapter 4 for a comprehensive list of grant reporting requirements.

Chapter 3: Pre-Proposal and Project Summary

The Pre-proposal is a new component of the grant application process. Due to the highly competitive nature of the Water Quality Improvement Grant Program, submission of a Pre-proposal is recommended. This is an opportunity for the applicant to receive feedback prior to submitting an official application. The submission deadline for the Pre-proposal will be announced with the Request for Grant Applications. There are many benefits to submitting a Pre-Proposal such as; early feedback on the strengths and weaknesses of the proposal, one on one consultation to discuss the proposal and the grant process, and technical assistance in the developed of scientifically sound management practices to increase the success of the project.

An applicant may choose to not submit a pre-proposal. However, ADEQ is requiring that this information be submitted with the official grant application as a Project Summary Document. Chapter 3: Pre-proposal and Project Summary is Part 2 of the Grant Application.

The Pre-proposal/Project Summary should be no more than four pages in length and should contain the following information:

1. A **problem statement and action plan**. Clearly and briefly identify the water quality issue that the project proposes to address and actions to be taken to control nonpoint source pollutants. This should include documentation of the problem (TMDL or Watershed Based Plan references, photographs, etc.). If possible, identify and document *key sites* where the water quality issue is demonstrated and future improvements can be measured. Explain what will be implemented and how. (Further details such as engineering plans will be provided in the official application.)
2. A list of **desired outcomes**. What does the project ultimately strive to achieve? What is ADEQ investing in? What is the likelihood that those results will be achieved? Desired outcomes should be quantifiable. (See examples of desired outcomes in chapter 1.)
3. Descriptions of **management methods**. How will pollutant loads be reduced? How will the *source* of pollutants be managed and controlled to ensure outcome delivery?
 - Example 1: Your project proposes to remove abandoned vehicles from a wash that serves as an ephemeral tributary to the Agua Fria River. In this scenario, the people abandoning the vehicles are considered to be the *pollution source*. One effective **management method** might be the creation of a county-wide program subsidizing vehicle removal/recycling.

- Example 2: You are proposing to dredge Lake X to remove excess nutrients that are continuously cycling within the lake system, causing impairments due to excess nitrogen and phosphorus. The TMDL for Lake X addresses residential runoff and leaking septic systems around the lake as the primary *pollution sources*. In order to ensure an outcome of improved water quality in Lake X, your **management methods** might include installing vegetative buffer strips around the lake to reduce runoff volume, as well as the installation of updated septic systems where necessary.

4. **Verification method.** How will success be measured? Examples of verification methods include water quality sampling, photo monitoring, and public surveys.

- **Please note:** projects that propose scientific monitoring as a verification method will be required to submit an abbreviated Sample Analysis and Quality Assurance Plan (SAP/QAP) with their final application. If the grant is awarded a full SAP/QAP will be required prior to initiating monitoring.

5. A **statement of opportunity.** Why now? What aspects (community involvement, availability of matching funds, etc) are available to contribute to the success of this project now, versus a year or two years from now? What partners are willing to work together? What synergy is coming together that will make project implementation possible?

Pre-proposals can be submitted by mail to the attention of the Water Quality Improvement Grant Coordinator at the following address:

Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

The Grant Coordinator can also be e-mailed at the address specified in the RFGA.

Chapter 4: Application Requirements and Grant Administration

Application Requirements

It is highly recommended that all interested parties attend a grant workshop and consult with ADEQ staff regarding any questions on the application forms.

Follow these guidelines when preparing the application:

- Read and familiarize yourself with all chapters of this manual
- Complete the grant application package. Include all required schedules and attachments that are pertinent to your application
- Submit one (1) original, five (5) copies, and one (1) electronic version of the grant application package. Your package must be submitted in a sealed envelope or package. The original copy of the application should be clearly labeled “original” and must include the original *Grant Application Form* with an original ink signature by a person who is legally authorized to enter into an agreement on behalf of the applicant. The application should be in the sequence requested and include page numbers. *ADEQ will not provide any reimbursement for the cost of developing or presenting applications.* Failure to include requested information may result in the rejection of your application or may have a negative impact on the evaluation of the application
- **Late applications will not be accepted**
- ADEQ cannot accept submissions solely via fax or e-mail. The application must be physically delivered or mailed in paper copy

Grant Administration

In order to meet all grant administration requirements, the grantee is responsible for providing the following deliverables:

- Quarterly Reports / Budget Reports
- Requests for Reimbursement
- Maintained records of all costs incurred
- Annual pollutant load reduction reports
- Final Report

Quarterly Reports/Budget Reports

Quarterly reports shall be submitted on a calendar quarterly basis. All quarterly reports and/or payment requests shall include, but are not limited to: a Budget, a narrative progress report, and a Request for Reimbursement (as applicable). The Budget must track the approved budget and report the budget expenditures (grant expenditures and match expenditures) for the current period and cumulatively.

The narrative progress report shall adequately discuss progress in completing the approved Project Milestones and discuss any delays or problems preventing expeditious completion of the project.

Reports must be received by ADEQ no later than 30 calendar days after the close of the quarter. Reports shall be in electronic format, unless requesting reimbursement, in which case a hard copy of the report must be submitted as well.

Requests for Reimbursement

Requests for reimbursement can be made at any time during the course of the grant. **Reimbursements will only be made if quarterly status reports are up-to-date.**

A complete request for reimbursement should include the following:

- A narrative status report describing current project activities.
- An update on all project milestones reported as percent completed.
- An original signed copy of the Request for Reimbursement Form (provided by your project manager at time of award).
- An updated budget sheet itemizing all current and cumulative costs.

Maintained Records of Costs Incurred

The Grantee is responsible for maintaining all records including supporting documentation adequate to demonstrate that costs claimed have been incurred, are applicable to the Grant, and comply with applicable cost principles. For any budget expenditures, the following documentation must be available to ADEQ upon request:

- Fringe Benefit detail and explanation.
- An itemization of per diem rates, equipment rental/usage rates, etc.
- Copies (or originals) of time sheets for employees and/or volunteers, with employee's and supervisor's signatures, noting dates, hours, and projects worked.
- Copies (or originals) of logs/schedules for equipment usage. Signed statements noting fair market value for in-kind donations of materials or supplies.
- Copies or originals of invoices for materials, supplies, equipment, etc.

Annual Pollutant Load Reduction Reports

All projects aimed at reducing nitrogen, phosphorus, or sediment will be required to submit yearly load reduction reports to the WQIG program. The purpose of these reports is to track reductions not only based on the overall project duration, but on an annual basis. These numbers are reported to the EPA and serve as justification for the continued funding of the Water Quality Improvement Grant program. Grantees will be provided with a computer program that will enable them to input variables specific to their projects to model pollutant load reductions, and ADEQ WQIG project managers will be available to provide assistance to grantees whenever necessary.

Final Report

The Grantee is required to notify the ADEQ Project Manager six months prior to grant expiration date for a final site inspection. It is the Grantee's responsibility to notify the ADEQ Project Manager if the project has been delayed. At the end of the project, a final budget report and final narrative report must be submitted and approved by ADEQ. The final narrative report shall include at a minimum: a summary of the project goals and objectives, project results or outcomes (including any data or photos), aspects of the project that worked well and things that did not work well, any public involvement and coordination and future activity recommendations for the watershed. ADEQ will not disburse final payment until the final report and all requirements of the Grant Agreement have been fulfilled. The grantee must submit three (3) hard copies of the report, as well as an electronic version.

Note: A file must be dedicated to this grant agreement and all records relevant to this project shall be retained by the Grantee for five (5) years after the final report is submitted.

Appendix A - Grant Application Package

Part I - Grant Application Form and Signature Page

Fill in answers for the requested information.

Part II – Project Summary / Pre-proposal

Please provide a summary of the project. Applicants that submitted a Pre-proposal may insert that information in this section. A Project Summary is a synopsis of the key points of the proposed project plan. The summary previews the main points of your project, enabling readers to build a mental framework for organizing and understanding the detailed information in the application. (Refer to Chapter 3 for requirements.)

Part III- Plan of Action

Expand on the project remedies, solutions, specific actions or best management practices discussed in the Project Summary. Provide attachments, maps or pictures to clarify and describe exactly what will be implemented and how.

Part IV- Location Information

The following information must be included with the grant application:

- Location Map -- Include a location map with the project site or area identified. A U.S. Geological Survey (USGS) 7.5 minute map is recommended. **Identify the location of all improvements.** Identify surface waters that will be improved.
- County where project is located.
- HUC and Watershed -- Provide the name and Hydrologic Unit Code number for the watershed at the 8-digit HUC level. HUC Code information can be found at the EPA “Surf Your Watershed” website (cfpub.epa.gov/surf/locate/index.cfm).
- Current Land Use -- Please list all land uses in the project site (recreation, cattle grazing, open range, crops, etc.).

Part V-Land Ownership

Identify who owns the land on which the project is located. If the applicant is not the land owner, the applicant must provide written authority for land access, improvements, and commitment by the land owner to maintain the improvements. In some cases, this authorization and commitment to maintenance agreement will occur after grant award and before implementation (e.g., tree planting, septic installations).

Part VI-Affected Waters

Identify surface or ground waters that will be improved by the project. Indicate if any of the waters are identified as impaired or not attaining their uses or considered Outstanding Arizona Waters (Unique Waters). Please refer to the ADEQ website for a list of impaired (Category V) and not attaining (Category IV) waters (www.azdeq.gov/environ/water/assessment/assess.html). A list and map of Outstanding Arizona Waters is included as Appendix C.

Part VII- Project Longevity

What is the estimated life of the improvements? How will the applicant assure that appropriate operation and maintenance will be done? What is the level of commitment to maintenance of the project benefits?

Part VIII- Education and Outreach

Each project needs to include methods that encourage public awareness in a targeted community. Projects should encourage direct public involvement in the implementation. How will this project encourage change within larger target community by example? What will the specific outcomes of the education and outreach component of the project be?

Part IX- Key People and Partners

Identify the people and partners who will be working on the project. Describe the qualifications of the key project manager and any other key personnel involved in the project. Focus on the skills and knowledge needed to accomplish the project. Explain how involvement of partners will lead to the success of the project. Identify what additional supportive actions the partners will take to encourage project success. How will the partners help lead the change?

Part X- Water Quality Improvement Plans

Identify any planning documents that support implementation of this project. How does the plan support the goals and objectives of this project? Projects supported by a Total Maximum Daily Load (TMDL) study, a TMDL Implementation Plan, or a watershed-based plan will receive bonus points during the review process because these improvements are considered high priorities to ADEQ. For more information about Watershed Based Plans and TMDL Implementation Plans, see Appendix B.

Part XI- Work Plan, Steps, and Milestones

A work plan is composed of a series of steps or stages of project development. These provide a way to track progress to ensure that the overall outcome is completed in a timely manner. Develop a work plan that identifies all of the steps needed to be accomplished with a schedule for completion. These steps correspond with a series of milestones that also need to be identified. Milestones are points of achievement critical to getting to an outcome. For example, if step or stage is a workshop to present the BMP, then the milestone would be education of 30 landowners.

Part XII- Budget

Develop a budget based on the anticipated costs for completing the project within the agreed upon time schedule (see Chapter 4). A 40 percent non-federal match must be identified in the budget and sources of these funds.

Grant and Match Expenditures

You may add or customize categories in order for the budget to make sense for your individual project. It is important to account for all the costs associated with the proposed project. For grant application purposes, only fill in the original budget column.

Administrative Costs: Management and overhead (indirect) costs. Remember, the total administrative costs charged to ADEQ cannot exceed 10% of the total amount requested. Subcontractors and consultants working on this project must also conform to the 10% administrative cost limit if you will be paying them with ADEQ funding.

Direct Costs: All costs associated with the project minus administrative and personnel (e.g. construction, equipment, materials).

Equipment: Account for any equipment which may be leased or purchased. Establish a cost estimate for any equipment usage including time estimates, such as computer usage.

Supplies: Include the cost for supplies, materials, paper, pens, rock, cement, etc.

Other: Include and specify costs for outside services, subcontracts, and any other costs associated with your project not listed above.

Personnel Costs: Costs associated with personnel who are to be involved in the proposed project. Compensation for personal services covers all proposed amounts to be paid or accrued by the organization for services rendered to the project.

Salaries: List these costs by job classification (e.g. laborer, project scientist, hydrologist, foreman, volunteer etc). Job classification cost per hour, multiplied by the number of hours, equals the total cost.

Subtotals: Add and total each column/category for grant and match expenditures.

Total Expenditures: Add and total subtotals for both grant and match expenditures.

Match Requirement

The total nonfederal match must be at least 40% of the total project cost (total expenditures). **Any donated match must be explained in full detail in *Part III, Section E* of the grant application. Please identify all matching sources.**

- Example 1: You have estimated your costs, developed your budget, and have determined that your *total expenditures* (includes grant funds and matching funds) will be \$100,000.

Multiple \$100,000 by 40% = \$40,000

Based on the example above, you must contribute \$40,000 in nonfederal match to the project. Your grant expenditures will subtotal \$60,000. The total project will cost \$100,000.

- Example 2: You have estimated your costs, developed your budget, and have determined that you need \$100,000 *from ADEQ* to complete your project.

Step 1: Divide \$100,000 by 60 = \$1,666.67

Step 2: Multiply \$1,666.67 by 40 = \$66,666.67

Based on the example above, you will need \$66,666 in nonfederal match. Your grant expenditures will subtotal \$100,000 and your match expenditures will subtotal \$66,666. The total project will cost \$166,666.

Part XIII- Project Verification/Evaluation

Add details about the verification methods identified in the Pre-proposal / Project summary to determine whether the project has successfully met the targeted outcomes. Most grant projects include monitoring components to measure the effectiveness of the project. If water quality data are collected, a “sample analysis and quality assurance plan” (SAP/QAP) must be developed in accordance with state guidelines. When water quality monitoring is funded by a grant, abbreviated monitoring plans and associated documentation must now be submitted with the application (see Appendix E). A full sampling and analysis plan will be required if the grant is awarded and before monitoring is initiated.

Part XIV- State Historic Preservation Office (SHPO) Form

All grant applicants must submit a SHPO form to ADEQ with the application. This form is provided in the grant application. ADEQ will be responsible for all correspondence with SHPO.

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Grant Application

Part I - Grant Application Form and Signature Page

Arizona Department of Environmental Quality Water Quality Improvement Grant Program <i>Grant Application Form</i>			
Project Title - <i>Please limit the length of the title to one line.</i>			
Project Description - <i>The project description should identify the type of project and the name of the waterbody and/or ground water basin that the project will improve.</i>			
Authorizing Agency - <i>Enter the name of the company, agency, or tribal authority who is applying for the grant.</i> Name: _____ Address: _____ City: _____ State: _____ Zip Code: _____	Authorized Agency Contact - <i>Enter the name of the person who will be accepting responsibility for the terms and conditions of the Grant Agreement. This person must sign the signature page.</i> Name: _____ Title: _____ Phone #: _____ Fax #: _____ E-mail: _____		
Project Manager - <i>Enter the name, title and contact information of the individual who will have the day-to-day knowledge of the project and should be contacted if clarification is required:</i> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; padding: 5px; vertical-align: top;"> Name: _____ Address: _____ City: _____ State: _____ Zip Code: _____ E-mail: _____ </td> <td style="width: 50%; padding: 5px; vertical-align: top;"> Title: _____ Phone #: _____ Fax #: _____ </td> </tr> </table>		Name: _____ Address: _____ City: _____ State: _____ Zip Code: _____ E-mail: _____	Title: _____ Phone #: _____ Fax #: _____
Name: _____ Address: _____ City: _____ State: _____ Zip Code: _____ E-mail: _____	Title: _____ Phone #: _____ Fax #: _____		
Project Period <input type="checkbox"/> 0 - 2 Years (Preferred) <input type="checkbox"/> Greater than 2 years - (<i>Provide justification in Part IV, Project Milestones</i>)			
Project Costs Funds Requested: \$ _____ Matching Funds: \$ _____ Total Project Cost: \$ _____			
Are you or your organization currently debarred, suspended or otherwise lawfully prohibited from any public procurement activity? <input type="checkbox"/> Yes <input type="checkbox"/> No			

Signature Page

The undersigned hereby offers and agrees to perform in compliance with all terms, conditions, specifications and scope in this grant application. Signature certifies understanding and compliance with the application attached hereto. ADEQ may approve the grant application with modifications to scope, methodology, schedule, final projects and/or budget.

Authorized Signature _____ Date _____

Print Name _____

Title _____

Company/Agency _____

The Grant Application Form must be signed by the individual legally authorized to act on behalf of the applicant in conducting all official business relating to the project. Signing this form and submitting a grant application package, certifies that the applicant has authority to enter into the agreement, accept funding, and fulfill the terms of the proposed project if approved. Applicant is required to read the Water Quality Improvement Grant Agreement Terms & Conditions and be legally authorized to enter into an agreement with ADEQ.

Part II – Project Summary/Pre-proposal

Part III – Plan of Action

(Address all actions and best management practices outlined in the Project Summary)

Part IV - Location Information

Location Map:

Site Plan:

County:

Watershed Name(s):

HUC Code (USGS):

Land Ownership:

Current Land Use:

Latitude:

Longitude:

Part V - Land Ownership

Part VI - Affected Waters

Part VII - Project Longevity

Part VIII- Education and Outreach

Part IX- Key People and Partners

Part X- Water Quality Improvement Plans

Part XII- Budget

ADEQ Grant Award #

Project Title:

Time Period: From

To

Grant Expenditures	Original Budget	Prior Expenditures	Current Expenditures	Cumulative Expenditures	Budget Remaining
Admin. Costs (10% max)					
Project Admin.				\$0.00	\$0.00
				\$0.00	\$0.00
Direct Costs					
				\$0.00	\$0.00
Equipment				\$0.00	\$0.00
				\$0.00	\$0.00
Supplies				\$0.00	\$0.00
				\$0.00	\$0.00
Other				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
Personnel					
Salaries				\$0.00	\$0.00
				\$0.00	\$0.00
Sub-totals	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Match Expenditures	Original Budget	Prior Expenditures	Current Expenditures	Cumulative Expenditures	Budget Remaining
Admin. Costs					
Project Admin.				\$0.00	\$0.00
				\$0.00	\$0.00
Direct Costs					
				\$0.00	\$0.00
Equipment				\$0.00	\$0.00
				\$0.00	\$0.00
Supplies				\$0.00	\$0.00
				\$0.00	\$0.00
Other				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
Personnel					
Salaries				\$0.00	\$0.00
				\$0.00	\$0.00
Sub-totals	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Total Expenditures	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
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Part XIII- Project Verification/Evaluation

Part XIV- State Historic Preservation Office (SHPO) Form

Any Arizona Department of Environmental Quality (ADEQ) action, including grant projects paid in-part with ADEQ funds, on state, federal, or private lands that may impact historic properties (i.e., any prehistoric or historic-period district, site, building, structure, or object included in, or eligible for inclusion in the State Register of Historic Places) require consultation with the State Historic Preservation Office (SHPO) pursuant to the State Historic Preservation Act (ARS 41-861 to 864). ADEQ is legally responsible for making determinations and findings. In order to make informed decisions and facilitate consultation with SHPO, ADEQ requires applicants to provide the “project related” information requested below. By working together, we can seek out ways that “the historical and cultural foundations of this state can be preserved as a living part of our community life and development” (State Historic Preservation Act).

Please prepare and answer the following questions pertaining to historic properties and preservation. Add map(s), drawings and pictures where appropriate.

1. Project Location and Area:

- County:
- Township, Range and Section:
- Nearest Town or City:
- Describe the conditions of the land in the project area:

Attach a copy a USGS topographic map (*See Part III – Scope of Work, Section G-1*) with the project area clearly marked. On the map, please specify the area(s) where impacts will occur.

II. Project Description:

- Describe the buildings or structures within project area and their age:
- Describe any ground-disturbing activities:
- Generally speaking, can this project impact historical properties, should they be present? Yes No

III. Describe the steps taken to identify historic properties in the project area:

- Has the project area been previously surveyed to determine the presence or absence of historic properties? Yes No (If yes, include report.)
- Are buildings, structures, or objects that are 50 years old or older present in the project area? Yes No (If yes, include description.)
- Are any prehistoric or historic-period archaeological sites present?

- Yes No (If yes, please list and briefly describe.)
- What does the state or federal land manager, if any, say about historic properties present in the project area? (Attach letter if available.)
 - What efforts, if any, would be reasonable to complete in determining the presence or absence of historic properties?

IV. *In the applicant's opinion, which determination listed below is appropriate for this project based on the information presented above:*

- No impacts/ historic properties not present
- No impacts/ historic properties present. Describe how historic properties will be avoided or protected:
- Negative impacts to historic properties. Suggest treatment measures:
- Positive impacts to historic properties. Describe:

For SHPO Use Only - Record of Consultation

SHPO advises ADEQ on the completeness of identification effort, determination of effect, and any proposed treatment measures.

- ___ Concur with determination
- ___ Do not concur with determination
- ___ Request More Information
- ___ Recommend that the project area be surveyed to determine the presence or absence of historic properties by a qualified professional
- ___ Additional comments below:

Signed: _____

Date: _____

*** * * IMPORTANT * * ***

*This is your complete **Grant Application Package**. **Make five (5) copies of this package**. If you prepare your application using a computer, please also submit a single copy of your proposal on a disk (along with the original and five (5) paper copies mentioned above). **One paper copy of the application submitted MUST contain an original signature and be clearly labeled "original."***

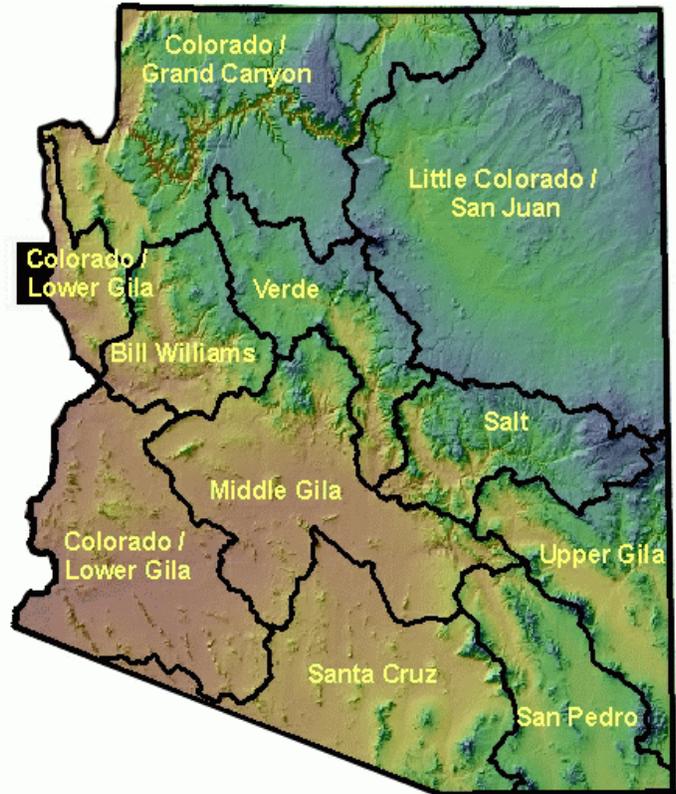
Mail or deliver your grant application package (one original and five (5) copies), in a sealed envelope or package, clearly marked with the following information, "Water Quality Improvement Grant Application" and "the deadline date." See example below. ADEQ cannot accept applications via fax or e-mail.

Water Quality Improvement Grant Application
Deadline: Month/Day/Year
Attention: Grant Coordinator
1110 W. Washington Street
Phoenix, AZ 85007

Appendix B – Water Quality Plans

Water Quality Improvement Plans

ADEQ approaches water quality management by integrating two types of water quality improvement plans: Watershed Based Plans (WBPs), and TMDL Implementation Plans (TIPs). The biggest difference between an implementation plan and a watershed-based plan is scale. TMDL implementation plans are written for lakes or specified stream segments within a larger watershed. Large scale watershed-based plans are currently being developed by Arizona's NEMO (Nonpoint for Municipal Officials) Program. ADEQ and the University of Arizona have partnered to create and develop Arizona's NEMO Program.



Watershed-based Plans

Watershed-based plans are holistic documents that are designed to protect and restore a watershed. These plans provide a careful analysis of the sources of water quality problems, their relative contributions to the problems, and alternatives to solve those problems. Watershed-based plans should also deliver proactive measures to protect waterbodies. In watersheds where a TMDL has been developed and approved or is in process of being developed, watershed-based plans must be designed to achieve the load reductions called for in the TMDL.

The U.S. Environmental Protection Agency recommends in federal guidance that watershed-based plans incorporate Nine Key Elements for solving water quality problems and developing a more comprehensive management strategy. "Solving water resource problems at a watershed level will provide the best basis for sound decision-making and implementation." (Nonpoint Source Program and Grants Guidelines for States and Territories - Federal Register: Oct. 23, 2003, Volume 68, Number 205).

ADEQ encourages groups to utilize and incorporate the recommended Nine Key Elements into watershed-based plans. Funding opportunities are enhanced as projects and management measures identified within these plans receive priority funding through ADEQ's Water Quality Improvement Grant Program. In broad terms, the elements that EPA and ADEQ recommend for a watershed-based plan are:

- Element 1: Causes and Sources
- Element 2: Expected Load Reductions
- Element 3: Management Measures
- Element 4: Technical and Financial Assistance
- Element 5: Information/education Component
- Element 6: Schedule
- Element 7: Measurable Milestones
- Element 8: Evaluation of Progress
- Element 9: Effectiveness Monitoring

Watershed-based plans in place and currently managing water resources might have some or all of these elements already included, or need minimal supplementation to satisfy the recommended Nine Key Elements. The recommended elements may overlap with elements required for planning documents developed for other local/state/federal agencies. If other planning documents or water quality improvement plans have been developed by or for other entities and contain the nine elements, they may also be used for priority grant funding. ADEQ encourages partnerships to incorporate by reference any voluminous material that already exists in other documents as this information may assist in completing watershed-based plan components. This also avoids duplication of any existing processes or documents that provide the needed information. Watershed-based plans should be reviewed and edited to incorporate the nine elements.

TMDL Implementation Plans

The Total Maximum Daily Load (TMDL) Program is designed to help an impaired stream or lake meet its water quality standards (sediment, metals, excessive nutrients, etc.) and support its designated uses, such as protection of aquatic life, drinking water and fish consumption. ADEQ, along with interested stakeholders, are responsible for the development of TMDLs and associated implementation plans. Section 303(d) of the Clean Water Act established authority for the TMDL Program and guides ADEQ on how to develop these plans for waters that do not meet water quality standards. A TMDL is generally waterbody specific (i.e., stream, stream reach, lake) versus other plans that focus on larger watershed areas.

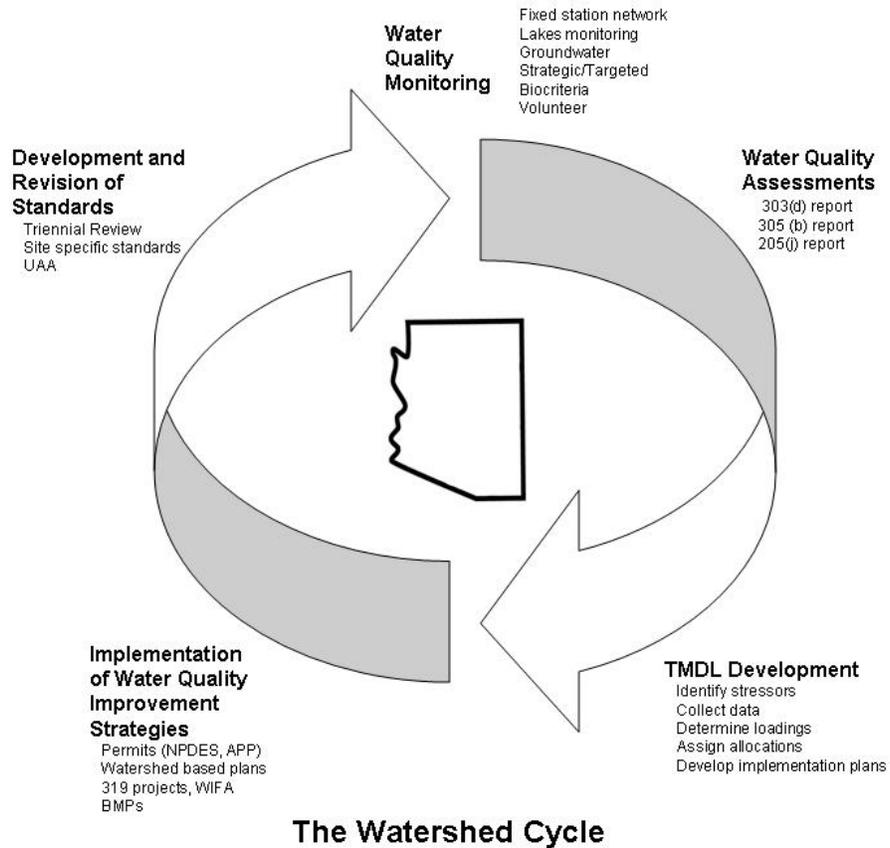
For each TMDL, ADEQ's Water Quality Division is required to establish a TMDL implementation plan that explains how the allocations and any reductions in existing pollutant loadings will be achieved (Arizona Revised Statute § 49-234G). Developing implementation plans is an integral piece of the TMDL process. The achievement of water quality standards in most surface waters will occur due to voluntary efforts such as voluntary cleanup actions, voluntary implementation of best management practices, volunteer monitoring, and education. When developing implementation plans, ADEQ uses EPA's recommended Nine Key Elements to develop a comprehensive management strategy to improve water quality.

Stakeholders are encouraged to participate throughout the process to identify actions that should be taken to ensure that plans are implemented. Throughout the development process, public involvement is actively encouraged by ADEQ. Collaborative stakeholder groups are encouraged to help in the development of water quality improvement management measures and monitoring. ADEQ requests public input, information, and remarks through a formal review and comment period on draft and final document plans.

To learn more about ADEQ's TMDL program and/or to find out the status of a particular TMDL, visit www.azdeq.gov/envIRON/water/assessment/tmdl.html or contact the TMDL Unit Supervisor at (602) 771-4468 or, toll free, (800) 234-5677, Ext. 771-4468.

Identifying and Solving Water Quality Problems

Through state-wide watershed characterizations and monitoring, Arizona identifies threatened and impaired waters. Based on statewide monitoring, all lakes and streams are identified and assessed. If a waterbody is assessed as impaired, a TMDL must be developed to help identify potential problems and pollutant loads. After the TMDL provides the diagnosis, an implementation plan (either a TMDL implementation plan or watershed-based plan) is developed as a community effort to help plan for restoration and protection. Lastly, the Water Quality Improvement Grant Program provides funds for water quality improvement projects. By working with partners within the state, community-led watershed partnerships, and other interested stakeholders, ADEQ is investing in the promotion of voluntary efforts to manage nonpoint source pollution.



Step 1 - Monitor

Water chemistry, biological and bacteriological samples, and physical stream and lake measurements are collected to characterize water quality.

Step 2 - Assess

Every two years ADEQ is required to prepare and submit an integrated report, *Arizona's Integrated 305(b) Water Quality Assessment and 303(d) Listing Report*, to EPA that provides Arizona's surface water quality assessment and list of impaired waters to fulfill requirements of the Clean Water Act Sections 305(b) (assessments) and 303(d) (list of impaired waters). In addition, the report documents the studies and data analysis used in the water quality assessment and characterizes water quality by watershed. A surface water (or segment of surface water) is classified as "impaired" if water quality standards are repeatedly exceeded.

Stakeholders (watershed partnerships, all interested individuals, agencies, etc.) are involved in the following activities:

- Developing surface water quality standards
- Assigning designated uses to the surface waters
- Establishing criteria for determining “impaired” waters
- Developing the 303d List of impaired waters

Step 3 - Total Maximum Daily Load (TMDL) Development

- Investigation of Impaired Waters ADEQ collects monitoring data and other information to determine
- Probable sources
- Pollutant loadings and reductions needed to meet standards
- Site-specific Standards - If the investigation indicates that natural conditions are a significant source of pollutants, site-specific standards may be established as part of the TMDL study
- Model Selection – ADEQ works with stakeholders in selecting a model or method to estimate the pollutant loadings and load reductions needed
- Public Involvement - ADEQ conducts a series of public meetings to inform the public about the impairment and status of the TMDL study, and requests information about sources and other pertinent information. The draft TMDL is provided for public review and formal comment via the internet and public meetings. After initial stakeholder review, the draft TMDL is published in the Arizona Administrative Register for a final public review and comment period before sending it to EPA for Final TMDL Approval – EPA must review and approve the final TMDL.

Step 4 - Implementation Plan Development

An implementation plan must be developed which specifies water quality issues, management measures, resources needed, and includes a schedule for execution and evaluation. The goal of the plan is to identify management practices and create interest in project implementation. Ultimately, the goal is to reduce pollutant loading to a waterbody in order to meet the load reductions assigned in a TMDL. Ideally the plan is developed by interested stakeholders in the watershed with ADEQ’s technical assistance. Most implementation is voluntary so stakeholder commitment is essential. Opportunities for grant funds are enhanced by the development of an implementation plan.

Step 5 – Funding & Implementation

Projects are proposed and funded through ADEQ's Water Quality Improvement Grant Program or through other available funding options.

Step 6 – Effectiveness Monitoring

It is important to evaluate whether water quality improvements are being achieved. Water quality monitoring can quantitatively evaluate the effectiveness of the programs and actions taken to reduce loadings. Based on this effectiveness monitoring, ADEQ may need to revise the TMDL or work with interested stakeholders to revise the implementation strategies.

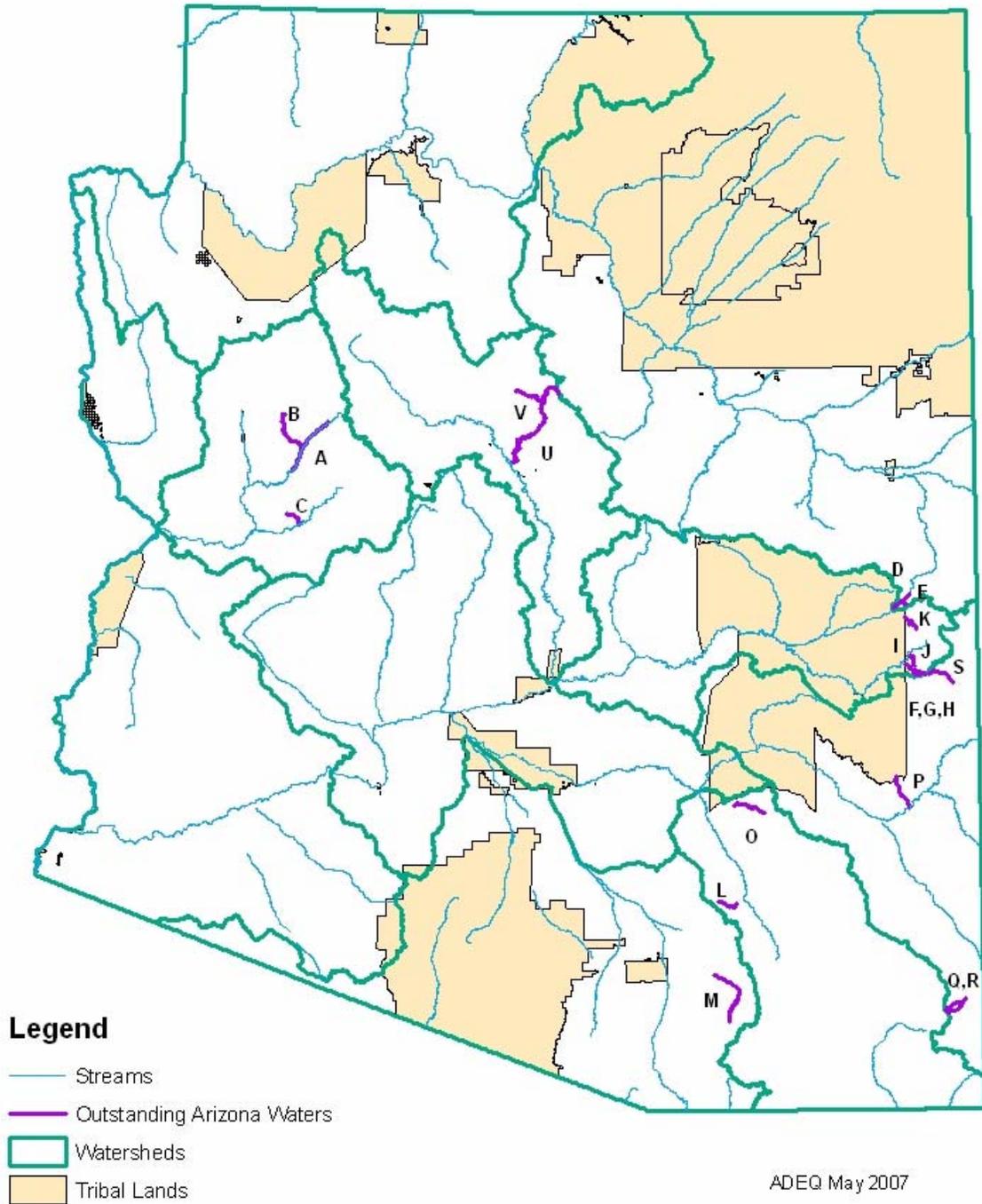
ADEQ actively requests and seeks the public's participation in identifying and solving water quality problems. Before action is taken, public meetings are held; and for draft documents, a public comment and review period is provided. Stakeholders can provide meaningful information and comments. Methods to keep stakeholders informed about water quality issues are constantly being sought.

Appendix C - Outstanding Arizona Waters (Unique Waters)

MAP #	WATERSHED	STREAM	REACH DESCRIPTION
A	Bill Williams	Burro Creek	From headwaters to confluence with Boulder Creek (about 29.5 miles)
B	Bill Williams	Francis Creek	From headwaters to confluence with Boulder Creek (about 22.9 miles)
C	Bill Williams	Peoples Creek	From headwaters to Santa Maria River (about 8.1 miles)
D	Little Colorado	West Fork of Little Colorado River	From headwaters to Government Springs (about 9.1 miles)
E	Little Colorado	Lee Valley Creek	From headwaters to Lee Valley Reservoir (about 1.9 miles)
F	Salt	Bear Wallow Creek	From headwaters to San Carlos Indian Reservation (about 4.25 miles)
G	Salt	North Fork Bear Wallow Creek	From headwaters to Bear Wallow Creek (about 3.8 miles)
H	Salt	South Fork Bear Wallow Creek	From headwaters to Bear Wallow Creek (about 3.8 miles)
I	Salt	Hay Creek	From headwaters to West Fork Black Creek (about 5.5 miles)
J	Salt	Snake Creek	From headwaters to Black River (about 6.2 miles)
K	Salt	Stinky Creek	From White mountain Apache Indian Reservation to West Fork Black River (about 3.0 miles)
L	San Pedro	Buehman Creek	From headwaters to unnamed tributary at 32°24'31.5"/ 110° 32'08"
M	Santa Cruz	Cienega Creek	From Gardner Canyon to USGS gage at 32°02'09"/110°40'34" (about 28.3 miles)
N	Santa Cruz	Davidson Canyon*	From headwaters to Cienega Creek (about 17 miles)
O	Upper Gila	Aravaipa Creek	From Stowe Gulch to downstream boundary of the Aravaipa Canyon Wilderness Area (about 15.5 miles)
P	Upper Gila	Bonita Creek	From San Carolos Indian Reservation to Gila River (about 14.7 miles)
Q	Upper Gila	Cave Creek	From headwaters to Coronado National Forest boundary (about 10.4 miles)
R	Upper Gila	South Fork Cave Creek	From headwaters to Cave Creek (about 8.6 miles)
S	Upper Gila	KP Creek	From headwaters to Blue River (about 12.7 miles)
T	Verde	Fossil Creek*	From Sandrock and Calf Pen canyons to Verde River (about 17.2 miles)
U	Verde	Oak Creek	From headwaters to Verde River (about 50.3 miles)
V	Verde	West Fork Oak Creek	From headwaters to oak Creek (about 14.8 miles)

* Davidson Canyon and Fossil Creek are proposed to be added to the Outstanding Waters. They are not shown on the map, but are protected as an Outstanding Waters while pending approval.
(As of 2007)

Outstanding Arizona Waters



Appendix D- Potential BMPs and Project Ideas

Best Management Practices

Best Management Practices (BMPs) are effective, practical, structural or nonstructural methods which prevent or reduce the movement of sediment, nutrients, pesticides and other pollutants from the land to surface and ground water. Implementation of BMPs offer site specific control of potential nonpoint source pollution. A thorough understanding of BMPs, how they work, and flexibility in their application are essential when selecting the right practice for your project. With each project, there may be more than one correct BMP for reducing or controlling potential nonpoint source pollution. Moreover, a BMP may be applied to an entire site or may be appropriate for specifically identified sites. Care must also be taken to select BMPs that are practical, economical, and appropriate to site conditions.

BMPs have been developed to guide landowners and land managers toward voluntary actions for improving water quality. ADEQ and EPA recognize the use of BMPs as acceptable methods to reducing nonpoint source pollution. The adoption and use of BMPs will provide the mechanism for attaining the following water quality goals:

- Maintain the stream channel integrity
- Reduce the volume of runoff from land surfaces
- Minimize the transport of pollutants
- Stabilize soils through appropriate management

The intent of this chapter is to promote better stewardship of water resources and to delineate environmentally responsible land management practices which, when applied properly, minimize adverse impacts to surface and ground water. Watershed protection practices are voluntary and should be supported by a public water quality education and awareness program.

BMP & Project Ideas

Below are examples of BMPs and project ideas.

Agricultural Runoff

Agricultural runoff contains pollutants including nutrients, sediment, animal wastes, salts, and pesticides. Many practices can be used to control runoff and reduce the erosion and transport of sediment from agricultural fields. These practices include conservation tillage, contour strip-cropping, terraces, filter strips, sediment retention ponds, and grade stabilization structures.

Alternative Drinking Water Sources

Installation of alternative drinking water sources for animals such as troughs and groundwater wells can redirect cattle and other livestock away from streams and rivers thereby improving the riparian habitat and water quality.

Animals in Waterways

Animal waste, including manure and urinary waste, can enter streams directly when cattle enter and wade around the water. Animals also trample streambanks, consume riparian vegetation, and damage fish habitat. Animal wastes deposited in waterbodies can accelerate eutrophication, contaminate water used for fishing, swimming, and drinking. Streambank fencing or alternative water source developments are ways to protect streams from livestock damage.

Cattle Crossing

Stream crossings provide a controlled crossing or watering access point for livestock. By restricting cattle crossing to a limited area, streambank erosion and streambed trampling are reduced, protecting water quality and aquatic habitat.

Conservation Tillage

Conservation tillage includes any tillage or planting system that maintains at least 30 percent of the soil surface covered by residue after planting. This BMP reduces soil erosion by water or wind. Surface residues decrease soil compaction from raindrops and provide soil cover during critical times in the cropping cycle.

Contour Strips

Contour strip farming reduces erosion and sediment production, thus decreasing the transport of sediment and related pollutants to receiving waters. Under this practice, sloping land is farmed across the slopes to impede runoff and soil transport downhill.

Controlled Grazing

Implementation of deferred rotational grazing systems have been demonstrated to be effective in minimizing sediment discharges from rangelands impaired by over-utilization. Examples include installing erosion control structures, fencing to establish discrete pastures, and alternative watering locations and improvements to facilitate frequent movement of animal units.

Construction

Construction sites, including roads, commercial and/or residential developments within a watershed, can be a source of sediment, petroleum products and other wastes. Installing erosion control structures such as

sediment traps, grade stabilization, and filter strips can control sediment discharges from construction sites. In addition, wash down areas or truck-wash pads are specifically designed to prevent construction vehicles from transporting sediment from a construction site to roads and surface waters.

Logging along Streams

Timber harvesting adversely impacts streams (if not done properly) by increasing stream water temperatures resulting from vegetation (shade) removal. In addition, residual logs, slash, litter, and soil organic matter can alter stream flows and adversely affect water quality by causing increased biochemical oxygen demand.

Motorized Transport

Significant portions of watershed recreation activities involve motorized transport. Managing access to and/or reducing motorized transport to decrease sediment discharges from areas degraded by OHV (off-highway vehicles such as quads and motorbikes) traffic can control erosion.

Rangelands

Revegetation of native plant species may restore rangelands impaired from historic over-utilization or rangeland invaded by exotic invasive species which displace native plants and can cause accelerated erosion and discharges of sediment.

Recreation

Deposition of human excrement by boaters, rafters and campers on waterways can cause significant fecal coliform impairment. Pollution may be reduced by installing solar powered composting toilets, along with posting signs and conducting other various outreach efforts to raise public awareness.

Retention/Detention Ponds

Constructed wetlands and multiple-pond systems remove pollutants by impounding runoff to control runoff rates. These ponds will settle and retain suspended solids and associated pollutants.

Roads

Surfaced and un-surfaced roads are major sources of sediment discharge. Access control and appropriate road design in critical watersheds can be used to control runoff and reduce the erosion and transport of sediment.

Streambank Revegetation

Preservation and protection of shorelines and streambanks can be accomplished through many approaches, such as soil bioengineering. Planting native grasses and trees are important structural components in controlling erosion caused by soil instability.

Storm Drain Stenciling

Colorful and descriptive art displays placed along side storm drains is an effective way to reduce oil, pesticide, litter, and other urban debris from entering urban runoff drainage systems. The stenciling serves to remind the public that what is thrown or poured down in urban areas often ends up untreated into coastal or other water bodies.

Vegetated Buffers

Strips of vegetation established between the source of pollution and a waterbody reduces pollutants in runoff. These buffers vary in width and can be designed as a vegetated filter strip, a wetland, or a riparian area.

319 Grant Project Examples

This list provides examples of 319 Water Quality Grant implementation projects that have or may be funded under ADEQ's Water Quality Improvement Grant Program.

- Installing stream bank erosion control structures
- Planting native grass strips to reduce soil erosion
- Fencing off springs, streams, and riparian areas from cattle and/or wildlife
- Stream crossing road closures with revegetation of riparian areas
- Remediation of abandoned mine tailings that cause pollution to enter surface waters
- Adding pipes and tanks to develop alternative water sources to minimize animal impact to surface waters
- Reducing pesticides and sediment from cropland runoff
- Implementing deferred rotational grazing management by building fences, corrals, and alternate water sources

Remember, projects designed to comply with required permit responsibilities will not be funded.

Note - These BMPs and project examples are offered only to stimulate ideas and are not meant to infer any commitment to being awarded funding. All of the projects listed above had an on-the-ground implementation component, an education/ outreach component, and demonstrated improvements to water quality or watershed conditions.

Visit the ADEQ Water Quality Improvement Grant Program website at www.azdeq.gov/environ/water/watershed/fin.html for project ideas from previously awarded grants

References

Below is a list of manuals and websites to locate other information on best management practices associated with nonpoint source management.

- *American Society of Civil Engineers information on stormwater best management practices* can be found at www.asce.org/community/waterresources/nsbmpdb.cfm.
- *Arizona's Nonpoint Source State Management Plan, Five Year Plan 2003-2008* can be found at www.azdeq.gov/environ/water/watershed/nonpoint.html.
- *National Management Measures to Control Nonpoint Source Pollution from Forestry* can be found at www.epa.gov/nps/forestrymgmt/index.html.
- *National Management Measures to Control Nonpoint Source Pollution from Agriculture* can be found at www.epa.gov/nps/agmm/index.html.
- *National Management Measures to Protect and Restore Wetlands and Riparian Areas for the Abatement of Nonpoint Source Pollution* can be found at www.epa.gov/owow/nps/wetmeasures/.
- *Nonpoint Education for Municipal Officials (NEMO)* can be found at www.srn.arizona.edu/nemo or contact the NEMO Coordinator at kuhlman@ag.arizona.edu.
- *Natural Resource Conservation Service Animal Feeding Operations (AFOs)* information can be found at www.nrcs.usda.gov/technical/nutrient.html.
- *United States Environmental Protection Agency Animal Feeding Operation (AFOs)* information can be found at www.epa.gov/agriculture/anafolaw.html

Appendix E

319 Project Proposal Abbreviated Monitoring Plan

Most grant projects include monitoring components to measure project effectiveness. If water quality data are to be collected and interpreted to determine effectiveness, a “sample analysis and quality assurance plan” (SAP/QAP) must be developed in accordance with state guidelines. The preparation and use of this plan helps ensure the scientific reliability of the data. Water quality data includes, but is not limited, to samples and field measurements of: water, sediment/soil, air pollutants, macroinvertebrates, stream or lake vegetation, habitat or riparian conditions, and stream bank stability.

When the grant includes funds for water quality monitoring, an *abbreviated monitoring plan* and associated documentation must now be submitted with the application. Since many worthy projects are not funded and development of a full and detailed SAP/QAP takes considerable time and effort, the full SAP/QAP is being delayed until the grant is awarded (a grant condition) and before monitoring is initiated. (A workbook for writing the full SAP/QAP can be obtained by contacting the Grant Program.)

The abbreviated monitoring plan should only be 2-3 pages plus maps. Brief and concise information should be provided about the following topics. Notice that this information will be useful in building the final SAP/QAP too.

1. Background and monitoring objectives

Most of the background information is already contained in the project proposal, so simply state the:

- a. Pollutant(s) of concern, and
- b. What the monitoring should be able to demonstrate (outcomes)
- c. General methods of data analyses, such as:
 - i. Comparison to: historic data, a pristine site in a matched watershed
 - ii. Comparison of upstream/downstream, or before/after at “key sites”
 - iii. Statistical method

2. Parameters and measurements

- a. List of laboratory or field measurements to be collected
- b. Describe why each group of parameters was chosen.
(This is a key step. Are these the best measurements?)

3. Sites

- a. Criteria to select sites
 - i. Use of *key sites* where deterioration is apparent and progress can be measured

- ii. Access issues?
 - iii. Flow conditions that affect site selection
 - iv. Past exceedances of surface water standards
 - b. Map of area (preferably USGS topographical map) with overlay of project implementations and monitoring sites.
- 4. Schedule
 - a. Criteria for determining when monitoring will occur, such as:
 - i. Before and after the project
 - ii. Estimated time for the project to improve water quality
 - iii. If pollutants are associated with certain conditions or seasons, how will monitoring be scheduled to capture such events? (Consider safety issues, flow, rain events, end of summer)
- 5. Protocols, Equipment, and Training
 - a. Reference protocol to be used for collecting data
 - b. Describe equipment and resources required, including needs.
- 6. Data analysis
 - For each type of pollutant or measurement:
 - a. What would be considered “success” and “failure?” (30% improvement, 90% improvement?)
 - b. How much data and what type of data are required? (e.g., at least 20 samples before and after project)
 - c. Reference protocols to be used for analyzing data.

Appendix F

Water Quality Improvement Grant Agreement Terms and Conditions

1.0 Definition of Terms

- 1.1 **“Applicant”** means a person, firm, or other organization that submits or is considering submitting an application.
- 1.2 **“Application”** means a response submitted pursuant to a Request for Grant Applications (RFGA).
- 1.3 **“Days”** means calendar days unless otherwise specified.
- 1.4 **“Department”** means the Arizona Department of Environmental Quality (ADEQ).
- 1.5 **“Director”** means the Director of ADEQ.
- 1.6 **“Equipment”** means tangible, nonexpendable, personal property, including supplies, having useful life of more than one year and an acquisition cost of \$1,000 or more per unit.
- 1.7 **“Grant Agreement”** means a written document, signed by an authorized representative of both parties, including the RFGA (including the manual referenced in the RFGA) and the application (including any revisions requested by the Department) and any Grant Agreement Amendments.
- 1.8 **“Grant Agreement Amendment”** means a written document, signed by an authorized representative of both parties for the purpose of making changes to the Grant Agreement.
- 1.9 **“Gratuity”** means a payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value is received.
- 1.10 **“Grantee”** means an applicant that is awarded a Grant Agreement.
- 1.11 **“Manual”** means the Water Quality Improvement Grant Manual.
- 1.12 **“Records”** means all books, accounts, reports, files and other records relating to this Grant Agreement.
- 1.13 **“Request for Grant Applications”** means the document the Department utilizes to request applications.
- 1.14 **“Subcontract”** means any contractual Grant Agreement, express or implied, between the Grantee and another party or between a subcontractor and another party delegating or assigning, in whole or in part, the making or furnishing of any material or any service required for the performance of the Grant Agreement.

2.0 **Grant Agreement Interpretation**

- 2.1 **Arizona Law.** This Grant Agreement shall be interpreted under Arizona law and, if applicable, under federal law. The Department is authorized to enter into Grant Agreements by Arizona Revised Statutes (A.R.S.) Title 49. The Department is soliciting grants using the process given in A.R.S. Title 41, Chapter 24.
- 2.2 **Implied Terms.** Each provision of law and any terms required by law to be in this Grant Agreement are a part of this Grant Agreement as if fully stated in it.
- 2.3 **Language and Marginal Headings.** Language as used in this Grant Agreement shall include the plural as well as the singular and the masculine, feminine and neuter genders. Marginal headings are included for ease of reading only and shall have no effect on the construction or interpretation of this Grant Agreement.
- 2.4 **Relationship of Parties.** Neither party to this Grant Agreement shall be deemed to be the employee or agent of the other party.
- 2.5 **Lobbying.** Grantee shall comply with federal lobbying requirements pursuant to 40 CRF 34.100 and Office of Management and Budget (OMB) Circulars A-87 and A-122. Federal grant funds may not be used to influence (or attempt to influence) a federal employee. If non-federal funds have been used to influence (or attempt to influence) a federal employee, the Grantee must submit Standard Form LLL (“Disclosure of Lobbying Activities”).
- 2.6 **Severability.** The provisions of this Grant Agreement are severable. Any term or condition deemed illegal or invalid shall not affect any other term or condition of the Grant Agreement.
- 2.7 **No Parol Evidence.** This Grant Agreement is intended by the parties as a final and complete expression of their agreement. No course of prior dealings between the parties and no usage of the trade shall supplement or explain any terms used in this document.
- 2.8 **No Waiver.** Either party’s failure to insist on strict performance of any term or condition of the Grant Agreement shall not be deemed a waiver of that term or condition even if the party accepting or acquiescing in the nonconforming performance knows of the nature of the performance and fails to object to it.

3.0 **Grant Agreement Administration and Operation**

- 3.1 **Drug-free Workplace.** Grantees are required to certify that they maintain a drug-free workplace. By signing the Grant Agreement, the Grantee certifies that he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any grant-related activity.
- 3.2 **Administrative Costs.** Salaries, overhead, or indirect costs for administrative services provided and charged against activities and programs carried out with the grant shall not exceed 10 percent of the grant award.

- 3.3 **Project Period.** The Department agrees to reimburse Grantees for work activities performed during the project period as described in this Grant Agreement. The Department is not required to reimburse Grantee for any work activities initiated prior to execution of this Grant Agreement or after the project period has elapsed. The Grantee understands that the Department may terminate this Grant Agreement (see paragraph 9.5 of this Grant Agreement), if the project is not initiated within 3 months after entering into this Grant Agreement. The Department may extend the project period, if requested by the Grantee by executing a Grant Agreement Amendment (see 5.1, Grant Agreement Amendments).
- 3.4 **Points of Contact.** ADEQ designates the individual listed below as the Project Manager for budgeting, deliverable, and scheduling issues. Technical correspondence, invoices and reports from the Grantee shall be sent to the person below or a replacement identified by ADEQ.

Northern Project Manager

Arizona Department Environmental Quality
1110 W. Washington St
Phoenix, AZ 85007
Phone: 602-771-4551, 1(800) 234-5677 Ext: 771-4551

Southern Project Manager

Arizona Department Environmental Quality
1110 W. Washington St.
Phoenix, AZ 85007
Phone: (602) 771-4565, 1(800) 234-5677 Ext: 771-4565

- 3.5 **Grantee's Representatives.** The Grantee shall designate the individual listed in the application as "Project Manager" as its Representative. Any proposed changes that are requested for either project contacts or project team members for the awarded grant shall be requested in writing to ADEQ. Changes shall not be made without ADEQ approval.
- 3.6 **Reports.** A budget report and a narrative report shall be submitted on a calendar quarterly basis. Reports shall be sent to the Department no later than 30 calendar days after the close of the quarter. Reports shall be in electronic format (disk or e-mail). A paper copy of the reports shall be mailed to the Department in addition to the electronic submittal. The reports shall include, but are not limited to, budget expenditures, in-kind expenditures, and a narrative of the project's progress, as applicable. Grantee must obtain ADEQ Project Manager pre-approval before any funds are relocated from the original/approved budget. The Grantee is responsible for responding to any inquiries from the Department and/or the U.S. Environmental Protection Agency.

At the end of the project, a final budget report and a final narrative report must be submitted and approved by the Department. The final narrative report shall include at a minimum: a summary of the project goals and objectives, project results or outcomes (including any data or photos), aspects of the project that worked well and things that did not work well, any public involvement and coordination and future activity recommendations for the watershed. An electronic format of the final report is required to close out the project.

The Department will not disburse final payment until the final report and all requirements of the Grant Agreement have been fulfilled. All remaining grant funds or outstanding grant funds must be reconciled.

- 3.7 **Records and Audit.** Under A.R.S. § 35-214 and § 35-215, the Grantee shall retain and shall contractually require each subcontractor to retain all Records for a period of five years after the completion of the Grant Agreement. Upon request, the Grantee shall produce a legible copy of any or all such Records. All Records shall be subject to inspection and audit by the Department, and where applicable the Federal Government, at reasonable times.
- 3.8 **Printing Credit.** Items such as brochures, advertisements, videos, maps, and technical reports developed for the project must be approved by the ADEQ Project Manager prior to printing or displaying information. These items shall include the statement "Funded by a grant from the United States Environmental Protection Agency and the Arizona Department of Environmental Quality."
- 3.9 **Recycled Materials.** To the extent possible, printed materials shall be on recycled paper with the statement, "Printed on Recycled Paper," printed on the cover sheet.
- 3.10 **Nondiscrimination.** Code 40 of Federal Regulations (CFR) 7.30 prohibits discrimination under any program or activity receiving U.S. Environmental Protection Agency assistance on the basis of race, color, natural origin, gender, handicap, or age. The Grantee shall comply with State Executive Order No. 99-4 and all other applicable Federal and State laws, rules and regulations, including the Americans with Disabilities Act.
- 3.11 **Inspection.** The Grantee agrees to permit access to its facilities and subcontractor facilities at reasonable times for inspection of the materials covered under this Grant Agreement.
- 3.12 **Advertising and Promotion of Grant Agreement.** The Grantee shall not advertise or publish information for commercial benefit concerning this Grant Agreement without the prior written approval of the Department.
- 3.13 **Ownership of Information.** Title to all documents, reports and other materials prepared by the Grantee in performance of this Grant Agreement shall rest in the Department, except for copyrighted material prepared in advance of this Grant Agreement by the Grantee at the expense of the Grantee. ADEQ and the U.S. Environmental Protection Agency shall have full and complete rights to reproduce, duplicate, disclose, perform and otherwise use all information prepared under this Grant Agreement, except for copyrighted material as provided in 6.1.2 of this Grant Agreement. The Grantee shall have full and complete rights to reproduce, duplicate, disclose, perform and otherwise use all information prepared under this Grant Agreement.
- 3.14 **Equipment.** Equipment purchased in whole or in part with grant funds should be itemized. Equipment that is purchased with grant funds may remain with the Grantee upon completion of the project unless the Department determines in writing that it is in the best interest of the State for the equipment to be returned to Department.

- 3.15 ***Small, Women/Minority Owned Business Utilization.*** Grantees are encouraged to make every effort to utilize subcontractors that are small, women-owned and/or minority owned business enterprises. This could include subcontractors for a percentage of deliverables made under this and subsequent agreements. Grantees who are committing a portion of their work to such subcontractors shall do so by identifying the type of service and work to be performed by providing detail concerning your organization's utilization of small, women-owned and/or minority owned business enterprises. Emphasis should be placed on specific areas that are subcontracted and percentage of agreement utilization and how this effort will be administered and managed, including reporting requirements.
- 3.16 ***Operation and Maintenance.*** Any management practices (nonpoint source pollution control measures, remediation, etc.) implemented for the project must be properly operated and maintained for the intended purposes or as defined in the special conditions of the Grant Agreement. Operation includes the administration, management, and performance of non-maintenance actions needed to keep the completed practices safe and functioning as intended. Maintenance includes work to prevent deterioration of the practice, repairing damage, or replacement of the practice to its original condition if one or more components fail.
- 3.17 ***Offshore performance of Work Prohibited.*** Due to security and identity protection concerns, all services under this Contract shall be performed within the borders of the United States. All storage and processing of information shall be performed within the borders of the United States. This provision applies to work performed by subcontractors at all tiers.
- 3.18 ***Federal Immigration and Nationality Act.*** By entering into this agreement, the Grantee warrants compliance with the Federal Immigration of Nationality Act (FINA) and all other Federal immigration laws and regulations related to the immigration status of its employees. The Grantee shall obtain statements from its subcontractors certifying compliance and shall furnish the statements to the Procurement Office upon request. These warranties shall remain in effect through the term of the agreement. The Grantee and its subcontractors shall also maintain Employment Eligibility Verification forms (I-9) as required by the U. S. Department of Labor's immigration and Control Act, for all employees performing work under the agreement.
- 4.0 **Grant Funding**
- 4.1 ***Use of Grant Funds.*** Awarded grant funds shall be used solely for eligible purposes as approved by the Department. Line item funding is considered estimates of costs, however, the total project cost is considered exact and shall not be exceeded by the Grantee unless otherwise amended.
- 4.2 ***Payment Processes.*** The Department's payments for Grantees' contractors (excluding overhead) is limited to a maximum daily rate of \$513.60 and a maximum hourly rate of \$64.20. This amount does not include transportation and subsistence costs, in accordance with normal travel reimbursement practices. Grantees may pay consultants more than this amount, but the excess amount may not be paid with grant funds.
- 4.3 ***Funding Disbursement.***

- 4.3.1 Transferred grant funds shall be deposited by the Grantee in a separate project account carrying the name and number of the project and the funds shall be expended from the account only as authorized under the terms of this Grant Agreement.
- 4.3.2 All matching fund contributions or expenditures must occur within the effective dates of the Grant Agreement.
- 4.3.3 All requests for reimbursement shall be accompanied by reasonable assurance (documentation, receipts, invoices, etc.) that the goods and services for which payment is requested were actually received and performed. The Department has the right to disallow contributions determined inappropriate or unreasonable.
- 4.3.4 Payments will be made upon approval by the Department.
- 4.4 ***Applicable Taxes.***
 - 4.4.1 The Department shall reimburse only the rate and/or amount of taxes identified in the grant application and included in the costs within the approved budget or in any resulting Grant Agreement.
 - 4.4.2 The Department is subject to all applicable state and local transaction privilege taxes. Transaction privilege taxes apply to the sale and are the responsibility of the Grantee to remit. Failure to collect taxes from the buyer does not relieve the seller from the obligation to remit taxes.
 - 4.4.3 Grantee and all subcontractors shall pay all Federal, state and local taxes applicable to its operation and any persons employed by the Grantee. The Grantee shall require all subcontractors to hold the Department harmless from any responsibility for taxes, damages and interest, if applicable, contributions required under Federal, and/or state and local laws and regulations and any other costs including transaction privilege taxes, unemployment compensation insurance, Social Security and Worker's Compensation.
 - 4.4.4 In order to receive payment under any resulting Grant Agreement, the Grantee shall have a current IRS-W9 Form on file with the Department.
- 4.5 ***Non-Availability of Funds.*** Every payment obligation of the Department under this Grant Agreement is conditioned upon the availability of funds appropriated or allocated for the payment of such obligation. If funds are not appropriated, allocated, or available for the continuance of this Grant Agreement, this Grant Agreement may be terminated by the Department at the end of the period for which funds are available.
No liability shall accrue to the Department in the event this provision is exercised, and the Department shall not be obligated or liable for any future payments or for any damages as a result of termination under this paragraph.
- 5.0 **Grant Agreement Changes**
 - 5.1 ***Grant Agreement Amendments.*** The Grant Agreement shall be modified only through a Grant Agreement Amendment. Unauthorized changes to this Grant

Agreement shall be void and without effect, and the Grantee shall not be entitled to any claim under this Grant Agreement based on those changes.

- 5.2 **Subcontracts.** The Grantee shall not enter into any Subcontract under this Grant Agreement without consideration for impact on the project. Grantee shall report any Subcontract awards or changes as part of that calendar quarter's narrative report (see 3.4, Reports). The Subcontract shall incorporate by reference the terms and conditions of this Grant Agreement.
- 5.3 **Competition.** Pursuant to 40 CFR 31.36, the Grantee shall conduct all procurement transactions in a way that provides open and free competition. Purchases for projects must be made on a competitive basis to ensure that fair and reasonable prices are obtained for goods and services. Grantee shall document cost or price analysis in connection with every procurement action regardless of amount.
- 5.4 **Assignment and Delegation.** The Grantee shall not assign any right nor delegate any duty under this Grant Agreement without the prior written consent of the Department. The State shall not unreasonably withhold consent. Both parties agree that it is reasonable to withhold consent where the Department determines that an assignment or delegation would not be advantageous to the State of Arizona or would be contrary to the purposes of the Water Quality Improvement Grant Program.

6.0 **Indemnification and Insurance**

- 6.1 **Indemnification Clause.** The parties agree that the State of Arizona, its departments, agencies, boards and commissions shall be indemnified and held harmless by the grantee for the vicarious liability of the State as a result of entering into this agreement. However, the parties further agree that the State of Arizona, its departments, agencies, boards, and commissions shall be responsible for its own negligence. Each party to this contract is responsible for its own negligence.

This indemnity shall not apply if the Grantee or sub-contractor(s) is/are an agency, board, commission or university of the State of Arizona.

The United States Federal Government, acting as a Grantee, does not have the authority to indemnify and hold harmless the State of Arizona from any and all claims, liabilities, losses damages, charges, etc. The State of Arizona does not have the authority to indemnify and hold harmless the United States Federal Government from any and all claims, liability, losses, damages, charges, etc. The State of Arizona will be responsible for errors, omission and negligence of its employees. The United States Federal Government will be responsible for the errors, omission and negligence of its employees to the extent provided by Congress under the Federal Tort Claims Act [28 U.S.C. 1346(b), 2401(b), 2671-2680, as amended by P.L. 89-506, 80-Stat.306].

- 6.1.1 **No Obligation in Excess of Appropriations.** Nothing in this Grant Agreement shall be construed as obligating the Department in the expenditure of funds or as involving the Department in any contract or other obligation of the future payment

of money in excess of appropriations authorized by law and budgeted and approved by the Department.

- 6.1.2 **Patent and Copyright.** The Grantee shall indemnify and hold harmless the State against any liability, including costs and expenses, for infringement of any patent, trademark or copyright arising out of Grant Agreement performance or use by the State of materials furnished or work performed under this Grant Agreement. The State shall reasonably notify the Grantee of any claim for which it may be liable under this paragraph. The United States Federal Government does not have the authority to indemnify and hold harmless the State of Arizona.
- 6.1.3 **Third Party Antitrust Violations.** The Grantee assigns to the State of Arizona any claim for overcharges resulting from antitrust violations to the extent that those violations concern materials or services supplied by third parties to the Grantee, toward fulfillment of this Grant Agreement.
- 6.2 **Insurance Requirements.** The Grantee and subcontractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under his Grant Agreement, are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Grantee, his agents, representatives, employees or subcontractors.

The *insurance requirements* herein are minimum requirements for this Grant Agreement and in no way limit the indemnity covenants contained in this Grant Agreement. The State of Arizona in no way warrants that the minimum limits contained herein are sufficient to protect the Grantee from liabilities that might arise out of the performance of the work under this Grant Agreement by the Grantee, its agents, representatives, employees or subcontractors, and the Grantee is free to purchase additional insurance. Agencies of the United States Federal Government are self-insured, and shall submit a certificate of self-insurance (see 6.2.8.)

- 6.2.1 The Grantee shall provide coverage with limits of liability not less than those stated below.

6.2.1.1 **Commercial General Liability – Occurrence Form**

Policy shall include bodily injury, property damage, personal injury and broad form contractual liability.

- General Aggregate \$2,000,000
- Products – Completed Operations Aggregate \$1,000,000
- Personal and Advertising Injury \$1,000,000
- Blanket Contractual Liability – Written & Oral \$1,000,000
- Fire Legal Liability \$ 50,000
- Each Occurrence \$1,000,000

The policy shall be endorsed to include the following additional insured language: *“The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees shall*

be named as additional insured with respect to liability arising out of the activities performed by or on behalf of the Contractor.”

Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Grantee.

6.2.1.2 **Worker's Compensation and Employers' Liability**

Workers' Compensation

Employers' Liability

	Statutory
Each Accident	\$ 500,000
Disease – Each Employee	\$ 500,000
Disease – Policy Limit	\$1,000,000

Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Grantee.

This requirement shall not apply to: Separately, each Grantee or subcontractors exempt under A.R.S. § 23-901, and when such Grantee or subcontractor executes the appropriate waiver (Sole Proprietor/Independent Contractor) form.

6.2.2 The policies shall include, or be endorsed to include, the following provisions:

- The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees wherever additional insured status is required such additional insured shall be covered to the full limits of liability purchased by the Grantee, even if those limits of liability are in excess of those required by this Grant Agreement.
- The Grantee’s insurance coverage shall be primary insurance with respect to all other available sources.
- Coverage provided by the Grantee shall not be limited to the liability assumed under the indemnification provisions of this Grant Agreement.

6.2.3 **Notice of Cancellation.** Each insurance policy required by the insurance provisions of this Grant Agreement shall provide the required coverage and shall not be suspended, voided, canceled, or reduced in coverage or in limits except after thirty (30) days prior written notice has been given to the Department. Such notice shall be sent directly to the Department and shall be sent by certified mail, return receipt requested.

6.2.4 **Acceptability of Insurers.** Insurance is to be placed with duly licensed or approved non-admitted insurers in the state of Arizona with an “A.M. Best” rating of not less than A- VII. The State of Arizona in no way warrants that the above-required minimum insurer rating is sufficient to protect the Grantee from potential insurer insolvency.

6.2.5 **Verification of Coverage.** The Grantee shall furnish the Department with certificates of insurance (ACORD form or equivalent approved by the State of

Arizona) as required by this Grant Agreement. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and endorsements are to be received and approved by the Department before work commences. Each insurance policy required by this Grant Agreement must be in effect at or prior to commencement of work under this Grant Agreement and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Grant Agreement, or to provide evidence of renewal, is a material breach of contract.

All certificates required by this Grant Agreement shall be sent directly to the Department. The ADEQ grant/project number and project description shall be noted on the certificate of insurance. The Department reserves the right to require complete, certified copies of all insurance policies required by this Grant Agreement at any time.

- 6.2.6 **Subcontractor.** Grantees' certificate(s) shall include all subcontractors as insured under its policies or Grantee shall furnish to the Department separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to the minimum requirements identified above.
- 6.2.7 **Approval.** Any modification or variation from the *insurance requirements* in this Grant Agreement shall be made by the Arizona Department of Administration, Risk Management Section, whose decision shall be final. Such action will not require a formal Grant Agreement amendment, but may be made by administrative action.
- 6.2.8 **Exceptions.** In the event the Grantee or subcontractor(s) is/are a public entity, then the Insurance Requirements shall not apply. Such public entity shall provide a Certificate of Self-Insurance. If the Grantee or subcontractor(s) is/are a State of Arizona agency, board, commission, or university, none of the above shall apply.

7.0 **Warranties**

- 7.1 **Key Personnel.** It is essential that the Grantee provide an adequate staff of experienced personnel, capable of and devoted to the successful accomplishment of work to be performed under this Grant Agreement. The Grantee must assign specific individuals to the key positions. Once assigned to work under the Grant Agreement, Grantees shall not remove or replace key personnel without consideration for impact on the project.
- 7.2 **Compliance with Applicable Laws.** The materials and services supplied under this Grant Agreement shall comply with all applicable Federal, state and local laws. Grantee shall maintain and comply with all applicable licenses and permit requirements.
- 7.3 **Grantee's Representations and Warranties.** All representations and warranties made by the Grantee under this Grant Agreement and within the application shall survive the expiration or termination of the Grant Agreement.

If the Grantee is an agency of the federal government, it shall ensure the quality of workmanship on the project and that it will remain in good working order for the Useful Life of the improvement.

In addition, the parties acknowledge that pursuant to A.R.S. § 12-510, except as provided in A.R.S. § 12-529, the State is not subject to or barred by any limitations of actions prescribed in A.R.S., Title 12, chapter 5.

8.0 **Department's Contractual Remedies**

8.1 ***Right to Assurance.*** If the Department in good faith has reason to believe that the Grantee does not intend to, or is unable to perform or continue performing under this Grant Agreement, the Department may demand in writing that the Grantee give a written assurance of intent to perform. Failure by the Grantee to provide written assurance within the number of days specified in the demand may, at the Department's option, be the basis for terminating the Grant Agreement.

8.2 ***Non-exclusive Remedies.*** The rights and the remedies of the State under this Grant Agreement are not exclusive.

9.0 **Grant Agreement Termination**

9.1 ***Conflict of Interest.*** The Grantee shall comply with standards of conduct pursuant to 40 CFR 31.36 to avoid conflict of interest. Recipients of federal funds may not participate in the selection, award, or administration of a contract if real or apparent conflict of interest would result.

9.2 ***Cancellation for Conflict of Interest.*** Pursuant to A.R.S. § 38-511, the State may cancel this Grant Agreement within 3 years after Grant Agreement execution without penalty or further obligation if any person significantly involved in initiating, negotiating, securing, drafting or creating the Grant Agreement on behalf of the State is or becomes at any time while the Grant Agreement or an extension of the Grant Agreement is in effect an employee of or a consultant to any other party to this Grant Agreement with respect to the subject matter of the Grant Agreement. The cancellation shall be effective when the Grantee receives written notice of the cancellation unless the notice specifies a later time. If the Grantee is a political subdivision of the State of Arizona, it may also cancel this Grant Agreement as provided in A.R.S. § 38-511.

9.3 ***Gratuities.*** The Department may, by written notice, terminate this Grant Agreement, in whole or in part, if the Department determines the Grantee or a representative of the Grantee offered employment or a Gratuity to any officer or employee of the State of Arizona for the purpose of receiving favorable treatment, including the making of any determination or decision, concerning this Grant Agreement. The Department, in addition to any other rights or remedies, shall be entitled to recover exemplary damages in the amount of three times the value of the Gratuity offered by the Grantee.

9.4 ***Suspension or Debarment.*** The State may, by written notice to the Grantee, immediately terminate this Grant Agreement if the State determines that the Grantee has been debarred, suspended or otherwise lawfully prohibited from participating in any public procurement activity, including but not limited to, being disapproved as a

subcontractor of any public procurement unit or other governmental body. Execution of a Grant Agreement shall attest that the Grantee is not currently suspended or debarred. If the Grantee becomes suspended or debarred, the Grantee shall immediately notify the Department.

- 9.5 ***Termination for Convenience.*** The Department reserves the right to terminate the Grant Agreement in whole or in part at any time, when in the best interests of the State of Arizona without penalty or recourse. Upon receipt of written notice of termination, the Grantee shall stop all work, as directed in the notice, notify all subcontractors of the effective date of the termination and minimize all further costs to the Department. In the event of termination under this paragraph, all documents, data and reports prepared by the Grantee under the Grant Agreement shall become the property of and be delivered to the Department. The Grantee shall be entitled to receive reimbursement for work completed and materials accepted before notification of termination. The Department is under no obligation to continue reimbursement for any work activities undertaken after notification of termination.
- 9.6 ***Termination for Default.*** The Department reserves the right to terminate the Grant Agreement in whole or in part due to the failure of the Grantee to comply with any term or condition of the Grant Agreement or to acquire and maintain all required insurance policies, bonds, licenses and permits. The Department shall provide written notice of the termination and the reasons for it to the Grantee.
- 9.7 ***Continuation of Work Activities After Termination.*** Termination of this Grant Agreement does not prohibit the Grantee from independently continuing work on the project, but any such independent continuation is solely the responsibility of the Grantee.
- 9.8 ***Disputes.*** The parties to this Grant Agreement agree to resolve all disputes arising out of or relating to this Grant Agreement through arbitration, after exhausting applicable administrative review, to the extent required by A.R.S. § 12-1518 except as may be required by other applicable state or federal statutes and law.