Fact Sheet: Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with the Mineral Industry – Sectors G, H, I & J

Table of Contents

I. Introduction

The Clean Water Act ("CWA") establishes a comprehensive program "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The CWA "also seeks to attain 'water quality which provides for the protection and propagation of fish, shellfish and wildlife.'" P.U.D. No. 1 of Jefferson City v. Washington Dep't of Ecology, 511 U.S. 700, 704 (1994) (quoting 33 U.S.C. § 1251(a)(2)). To achieve these goals, the CWA requires U.S. Environmental Protection Agency (EPA) to authorize discharges through issuance of National Pollutant Discharge Elimination System ("NPDES") permits.

The purpose of this Fact Sheet is to describe the proposed AZPDES 2019 Multi-Sector General Permit (MSGP) for stormwater discharges associated with industrial activity from active and inactive mine sites in the mineral industry category iii of 40 CFR 122.26(b)(14). The industry sectors corresponding to category iii of 40 CFR 122.26(b)(14) includes all establishments primarily engaged in mining. The 1987 SIC Manual, Division B, US Department of Labor explains that the term for mining is "used in the broad sense to include the extraction of minerals occurring naturally: solids, such as coal and ores; liquids, such as crude petroleum; and gases such as natural gas. The term mining is also used in the broad sense to include quarrying, well operations, milling (e.g., crushing, screening, washing, flotation), and other preparation customarily done at the mine site, or as a part of mining activity."

Table 1-1 of the MSGP 2019 summarizes the permit eligibility based on Standard Industrial Classification (SIC) Codes about each mining sector covered by the permit. More detail is presented in Section III of this Fact Sheet.

ADEQ is issuing the MSGP 2019 to replace the expired MSGP 2010. The permit will have a five year term; hence, it will expire five years after the permit's effective date. Pursuant to A.A.C. R18-9-C905 the Director may modify and reissue and revoke the permit before it expires if certain conditions, presented in 40 CFR 122.62(a) or (b), are met.

All mining facilities on non-tribal lands in Arizona subject to the permit, including those previously covered by the MSGP 2010, must apply for coverage under ADEQ's new MSGP within 60 calendar days from the effective date of the 2019 MSGP. To be covered by the new permit, operators must submit a complete and accurate Notice of Intent (NOI) and certify in the NOI that they meet the requisite eligibility requirements, described in Part 1 of the permit, including the requirement to select, design, and install control measures to comply with the numeric effluent limitations and water quality standards in Part 2 and to develop a SWPPP, pursuant to Part 5.

The permit references various federal regulations. These regulations are incorporated by reference into the state AZPDES rules in the Arizona Administrative Code (A.A.C.) R18-9-A905. As an aid to reviewers, however, the permit cites the federal regulations where specific regulatory language can be found.

II. Organization of the Final Permit and Summary of Changes from the MSGP 2010

II.A. Structure of the MSGP 2019 / Terminology

Structure

ADEQ has divided the permit into eight parts:

Part 1 Permit Coverage;

Part 2 Effluent Limits and Control Measures;

Part 3 Corrective Actions;

Part 4 Inspections;

Part 5 SWPPP Preparation;

Part 6 Monitoring;

Part 7 Reporting and Recordkeeping Requirements; and

Part 8 Industry Sector-Specific Conditions.

Appendices include definitions and standard permit conditions. Each of these parts is discussed in more detail in Section XIII of this Fact Sheet.

Terminology

Throughout this Fact Sheet certain terms are used when referring to different responsible entities. For instance, the permit holder is referred to either as the "permittee" or "operator". Typically, the term "operator" or "applicant" is used when discussing those actions required prior to permit authorization, while "permittee" is used where this Fact Sheet and the permit refers to provisions that affect a covered discharger.

II.B. Summary of Major Changes from the MSGP 2010

The 2019 MSGP includes a number of new or modified requirements, and thus differs from the 2010 MSGP in various ways. The following list summarizes the more significant changes to the MSGP.

Change of terminology "Facility" to "Site" throughout permit

The word facility was changed to site to more adequately reflect the definition of site for permitting purposes. Site means the land or water where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

Information Required for NOIs

The MSGP 2019 specifies the information required in NOIs to provide ADEQ with adequate information to determine eligibility, to determine whether additional water quality-based requirements are necessary, to satisfy federal electronic reporting requirements, and to enable ADEQ to inform the operator of its specific monitoring requirements (including identifying facilities that are inactive and unstaffed that do not require monitoring). Operators now need to include location information for each stormwater outfall they discharge from. The electronic permitting tool, myDEQ, will use the outfall latitude and longitude for each location to

help determine the receiving water(s) the site discharges to, including the receiving water(s) status (e.g. special water) and can apply the applicable surface water quality standards to the discharge.

No Discharge Certification

If a site is not eligible for authorization under this permit because stormwater is not discharged to a Water of U.S., the operator may elect to obtain a No Discharge Certification through the electronic permitting process in myDEQ, when available. The operator will need to certify that there will be no discharges to a Water of the U.S., and will receive a "no discharge certificate" with a unique tracking number. A record of the certification will be created and available in the myDEQ account dashboard.

Electronic Reporting Requirements

Electronic reporting is required in the 2019 MSGP. Electronic reporting is necessary to create efficiencies, reduce the burden of submitting / managing paper copies, will allow for easy access and review of monitoring data, and to comply with U.S. EPA's electronic reporting rule. Electronic reporting and record keeping (NOI, NOT, NEC, DMR, etc.) for this permit is through ADEQ's myDEQ electronic permitting portal.

Corrective Actions

Although the 2010 MSGP required corrective actions, ADEQ has more clearly identified which conditions require corrective action and clarified documentation requirements. This clarification requires permittee to more adequately capture information relevant to initiating and or completing corrective action at the site. The 2010 MSGP had permittees submitted Corrective Action information with the Annual Report (if the Annual Report was required to be submitted). In the 2019 MSGP, the Annual Reporting preparation and submittal has been removed (see Fact Sheet Part X.B) from the permit requirements. Corrective action reports must be submitted to ADEQ on a form provided by the Department. When electronic reporting becomes available, corrective action reporting will then be required using an established myDEQ account. The submittal of all Corrective Action Reports is a new requirement and enables ADEQ to: 1) be notified when a permit violation has occurred; 2) assess the potential impact of the discharges on water quality; and 3) evaluate the adequacy of the permittee's response to the violation.

Inspections

In 2019 MSGP ADEQ streamlined the site inspection schedule by eliminating the comprehensive site inspection and specifying quarterly routine site inspection, for a total of four (4) routine inspections each year. Clarification was added to the routine inspection requirements to more clearly establish what is required for site inspections and to establish one set of inspection procedures for consistency.

Monitoring

A number of significant changes were made to the monitoring provisions as compared to the MSGP 2010. Several of these changes are listed below. For a more detailed discussion of each of these changes, see Section IX.B.1 of the Fact Sheet.

- The permittee shall conduct general analytical monitoring twice per year (once per wet season) in accordance with Part 8 of the permit for the duration of permit coverage commencing on the date of the permittee's Authorization to Discharge. The permittee shall use the results of analytical monitoring to evaluate the effectiveness of control measures and meeting the requirements of Part 2.1 and Part 2.2.1.
- ADEQ assessed the pollutant parameters on a sector-by-sector basis and added, removed, or substituted parameters to be better representative of the industrial activity. Certain general analytical monitoring parameters for Sector G (Metal Mining -Ore Mining and Dressing) were changed to more adequately reflect the type of potential pollutants relative to the mine site activity. For example, parameters such as Biological Oxygen Demand (BOD_5) and Chemical Oxygen Demand (COD) were generally removed and substituted for a parameter that has a water quality standard, such as copper. BOD and COD were removed from the sampling requirements because the results of those parameters are often difficult to apply in a meaningful manner to industrial stormwater runoff.
- All types of monitoring required by the permit (general analytical, effluent limitation guideline, impaired water(s), Outstanding Arizona Water (OAW), ADEQ requested sampling) must be sampled two times per year (once per wet season) for the duration of the permit. The monitoring twice per year will assess stormwater quality that may change over time for various flows and durations. The frequency and duration of the sampling will provide continued assessment of the control measures and provide environmental protection for those varied storm events.
- The ephemeral exemption for total suspended solids (TSS) and turbidity are no longer exempt parameters if the discharge goes to the ephemeral waters. The ephemeral exemption was removed in order to provide continued assessment of control measures, provide environmental protection of all receiving waters including ephemeral waters and protect downstream uses. In those cases, the surface water quality standard for ephemeral washes or the sector-specific permit limit will be applied to the discharge.
- Follow-up monitoring requirements (called accelerated monitoring) have been added when one sample result indicates a permittee's discharge exceeds a numeric limit (a water quality standard for an impaired water or OAW, exceeds a WLA, or an ELG), to verify that control measures have been modified to control the discharge as necessary to meet the effluent limitation. If, after one event, a pollutant is identified above a numeric permit limit, accelerated monitoring shall be initiated. Accelerated monitoring consists of sampling each subsequent qualifying storm event. Accelerated monitoring shall continue until two consecutive sampling events are below the corresponding numeric limit. Accelerated monitoring is required after one event above a permit standard in order to confirm or dispel the exceedance in a timely manner and to demonstrate that control measures are continuing to operate effectively.
- Permittees are required to enter sampling results onto the electronic Discharge Monitoring Report (eDMR) within 30 days of receiving the laboratory analytical data. The submittal of the DMR 30 days after receiving the laboratory analytical results, will provide timely notification of sampling results and potential sampling exceedances, if applicable.

Annual Report

The Annual Report preparation and submittal permit requirement has been removed from the 2019 MSGP. Information regarding compliance with permit requirements will be more adequately captured in DMRs (if required) and the Corrective Action Report, all of which are required to be submitted directly to ADEQ, notifying the Department of issues regarding potential non-compliance.

Industry Sector-specific Requirements

There were no major textual changes within the body of Part 8 of the MSGP, which describes requirements specific to particular industry sectors, other than minor edits. The majority of the changes were to the frequency of monitoring and general analytical sampling parameters in the Tables- Part 8. The changes to the frequency and sampling parameters are described in other parts of this Fact Sheet.

- Sector H, Coal Mining – Remain as RESERVED in 2019 MSGP. At the present time, all Arizona coal mines are located on the Navajo and Hopi Reservations, which are outside the jurisdiction of the MSGP 2019. ADEQ has no agreements (such as Inter-governmental Agreements or Memorandums of Understanding) to implement and enforce the MSGP 2010 in Indian Country in the state of Arizona. This sector is reserved.
- Sector I, Oil and Gas Extraction –Remain as RESERVED in 2019 MSGP.

  At the present time, all Arizona oil and gas production (extraction) is located in the Paradox Basin of the Four Corners Region on the Navajo Reservation, which is outside the jurisdiction of the MSGP 2019. As with Sector H, ADEQ has no agreements to implement and enforce the MSGP 2019 on the Navajo Reservation. Periodically, oil and gas exploration (exploratory drilling) occurs outside Indian Country in Arizona, but, there is currently no production, which is the main scope of coverage under the MSGP for this sector. Operators conducting oil and gas exploration outside Indian Country are required to obtain coverage under the AZPDES CGP for any activity disturbing one acre or more. This sector will remain as reserved.

III. Categories of Facilities Covered by the MSGP 2019

Coverage under the permit is available for stormwater discharges associated with industrial activity from active and inactive mine sites in the mineral industry category iii of 40 CFR 122.26(b)(14) (the mineral industry Sectors G, H, I and J). The sector descriptions are based on the four digit Standard Industrial Classification (SIC) Codes.

The sectors are listed below:

TABLE 1 –Mineral Industry Sectors with Stormwater Discharges Associated with Industrial Activity Covered by the Permit
Sector G – Metal Mining (Ore Mining and Dressing)
Sector H – Coal Mines and Coal Mining-Related Facilities – RESERVED
Sector I – Oil and Gas Extraction and Refining – RESERVED
Sector J – Mineral Mining and Dressing

The general permit applies only to category iii identified by 40 CFR Part 440 and the metal mining industry (Standard Industrial Classification (SIC) code 10). SIC code 10 includes

establishments primarily engaged in mining, developing mines, or exploring for metallic minerals (ores). This group also includes all ore dressing and beneficiating operations, whether performed at mills operated in conjunction with the mines served or at mills, such as custom mills, operated separately. Common activities at these mills include: crushing, grinding, and separation by gravity concentration, magnetic separation, electrostatic separation, flotation, or leaching. The following is a listing of the types of mining/milling facilities that are covered under SIC code 10: Iron Ores (SIC Code 1011); Copper Ores (SIC Code 1021); Lead and Zinc Ores (SIC Code 1031); Gold Ores (SIC Code 1041); Silver Ores (SIC Code 1044); Ferroalloy Ores, Except Vanadium (SIC Code 1061); Uranium-Radium-Vanadium Ores (SIC Code 1094); and Miscellaneous Metal Ores, Not Elsewhere Classified (SIC Code 1099).

Detailed Part-by-Part Discussion of the Permit

IV. Coverage under the MSGP 2019 (Part 1)

This part describes eligibility requirements for mining facilities included in Category iii of 40 CFR 122.26(b)(14) must meet to be covered by the permit. Part 1 describes how to apply for coverage, limitations on coverage, types of non-stormwater discharges that are allowed under the MSGP 2019, permit compliance, authorization under the permit, alternative permits, termination, and obtaining a conditional exemption from no exposure requirements.

IV.A. Eligibility (Part 1.1)

As with previous permits, to be eligible for coverage under the MSGP 2019, the discharges from industrial facilities must meet the eligibility provisions described in Part 1.1 of the permit. If they do not meet the eligibility requirement, operators must either obtain coverage under another AZPDES permit or eliminate the discharges. If a site not eligible for authorization under this permit because stormwater is not discharged to a water of U.S., the operator may apply for a No Discharge Certification, when available through myDEQ.

IV.A.1. Allowable Stormwater Discharges (Part 1.1.2).

Part 1.1.2 specifies which stormwater discharges are eligible for coverage under the permit. As described in Section IV.A.3 of this Fact Sheet, not all stormwater discharges associated with industrial activity are eligible for coverage under the permit (e.g., stormwater discharges regulated by certain national effluent limitations guidelines). Dischargers should use this section to determine which stormwater discharges from their site can be covered under the MSGP.

IV.A.2 Allowable Non-Stormwater Discharges (Part 1.1.3).

This provision lists the non-stormwater discharges authorized under the permit and are exceptions to the general exclusion of non-stormwater discharge from eligibility. To be authorized under the permit, any sources of non-stormwater (except flows from fire fighting activities) must be identified in the SWPPP. These non-stormwater discharges must be ancillary to the primary permitted use.

Also specifically identified as being authorized are discharges of stormwater listed in Parts 1.1.2 or authorized non-stormwater discharges in Part 1.1.3, mixed with a discharge authorized by a different AZPDES permit and/or a discharge that does not require AZPDES

permit authorization. ADEQ notes that all other non-stormwater discharges requiring AZPDES permit coverage that are not listed in Part 1.1.3 or described in Part 8, are not authorized under this permit. If non-stormwater discharges requiring AZPDES permit coverage other than those specifically authorized in Part 1.1.3 will be discharged, such non-stormwater discharges are not authorized by the permit and must either be eliminated or covered under another AZPDES permit.

The permit requires pavement wash waters to be treated with appropriate control measures to minimize discharges of mobilized solids and other pollutants. ADEQ encourages other control measures be considered when doing such cleaning including vacuuming, using the least amount of water in pressure washing to reduce the quantity of discharge, and running the wash water through a filter to remove pollutants prior to discharge. Other options are to direct the wash water flow through a green infrastructure feature(s) (or some similar treatment), or to capture and infiltrate the flow so there is no discharge. If there are doubts regarding the presence of contaminants in the wash water, even after treatment, operators should not discharge it

Uncontaminated groundwater or spring water is allowed as a non-stormwater discharge, provided the source is naturally occurring or required for the industrial activity to proceed and includes aquifer testing & well development.

The use of reclaimed wastewater for dust control, although not an allowable non-stormwater discharge, may be conducted by permittees provided the reclaimed water is not used in such prodigious amounts as to constitute disposal and is not applied during heavy storm events, such that it is mixed with stormwater that discharges offsite. The MSGP 2019 does not prohibit the use of reuse/reclaimed or potable waters on-site for dust control or for landscape irrigation that is consistent with the reclaimed water rules (A.A.C. R18-9-704(G)(3)(c)), provided such uses are managed in a way that there is no discharge of reclaimed water off site or to a waters of the U.S.

Permittees should be aware that many of the allowable non-stormwater discharges in Part 1.1.3 may still require permit coverage under the department's aquifer protection program (APP).

IV.A.3 Limitations on Coverage (Part 1.1.4).

Part 1.1.4 describes the limitations on what is covered under this permit. Any discharges not expressly authorized under the 2019 MSGP cannot become authorized or shielded from liability under CWA Section 402(k) by disclosure to ADEQ, EPA, or local authorities after issuance of the MSGP by any means, including the NOI to be covered by the permit, the SWPPP, or during an inspection.

Discharges Mixed with Non-Stormwater (Part 1.1.4.1). The MSGP does not authorize stormwater discharges that are mixed with non-stormwater other than those non-stormwater discharges listed in Part 1.1.3. Where a stormwater discharge is mixed with non-stormwater, that this MSGP or another AZPDES permit does not authorize, the operator must submit the appropriate application forms to obtain an individual AZPDES permit to gain permit coverage for the non-stormwater portion of the discharge.

Stormwater Discharges Associated with Construction Activity (Part 1.1.4.2). Stormwater discharges associated with construction activity, defined in 40 CFR 122.26(b)(14)(x) and (b)(15) are covered by the permit, if they are in conjunction with mining or oil and gas activities, where

the applicable sector-specific requirements for construction stormwater discharges as specified in Sectors G, H, I and J, (Part 8) are met. Many of the industrial activities associated with mining and oil and gas extraction include construction activities and having construction activities for these sectors establishes a more streamlined approach for operators preferring to be covered by one permit, instead of two.

Discharges Currently or Previously Covered by another Permit (Part 1.1.4.3). This section describes cases where an operator is ineligible for coverage under the MSGP because of coverage under another permit. The objective is to avoid conflict with the anti-backsliding provisions of the CWA. The cases this applies to include operators currently covered under an individual permit or an alternative AZPDES general permit; operators covered by a permit within the past five years prior to the effective date of the 2019 MSGP, which established site-specific numeric water quality-based limitations developed for the stormwater component of the discharge; or operators with discharges from facilities where the associated AZPDES permit has been or is in the process of being denied, terminated (permit termination does not refer to the routine expiration and reissuance of permits every five years), or revoked by ADEQ.

Discharges Subject to Effluent Limitations Guidelines (Part 1.1.4.4). Discharges subject to stormwater-specific federal effluent limitations guidelines that are eligible for coverage under the permit are listed in Table 1-1 of the permit. All other stormwater and non-stormwater discharges subject to effluent limitation guidelines must be covered under an applicable alternate permit. Discharges subject to effluent limitations guidelines are discussed in greater detail in Section IX.B.2.

New Dischargers and New Sources: Based on Water Quality Standards (Part 1.1.4.5). This is a new section in 2019 MSGP that describes permit eligibility for the construction or operation of facilities classified as new sources and/or new dischargers (as defined in Appendix A), pursuant to A.A.C. R18-9-A903. Facilities classified as "new source" or "new discharger" are not eligible for coverage under the 2019 MSGP for any discharges that ADEQ determines will not meet an applicable water quality standard (i.e., discharges that will cause or contribute to a violation of a water quality standard). ADEQ may notify such operators that an individual permit application is necessary in accordance with Part 1.4, or, alternatively, ADEQ may authorize coverage under the MSGP after the operators have implemented measures designed to ensure the discharge meets water quality standards. ADEQ notes that while Part 1.1.4.5 is designed to specifically implement A.A.C. R18-9-A903 (40 CFR 122.4(i)), other water quality-based requirements apply to new and existing dischargers. Part 2.1 of the permit includes water quality-based effluent limits applicable to all dischargers, which are designed to ensure that discharges from both new and existing permittees are controlled as necessary to meet water quality standards.

New Dischargers and New Sources to Water-Quality Impaired Waters (Part 1.1.4.6). This section requires any new source or new discharger to demonstrate its ability to comply with A.A.C. R18-9-A903 (i.e., prohibiting the issuance of permits to new sources and new dischargers that will cause or contribute to the violation of water quality standards) prior to coverage under the permit. To satisfy the requirements of A.A.C. R18-9-A903, an operator must complete one of the following: (a) prevent all exposure to stormwater of the pollutant(s) for which the waterbody is impaired, and retain documentation with the SWPPP on how this was accomplished; (b) submit technical information or other documentation in the SWPPP along with the NOI, to support a claim that the pollutant(s) for which the waterbody is impaired is not present at the site

; or (c) submit data or other technical documentation in the SWPPP along with the NOI to support a conclusion that the discharge will meet applicable water quality standards (i.e., that pollutants of concern will not be discharged at levels that will cause or contribute to a violation of water quality standards) (A.A.C. R18-11-107.F.)

For discharges to waters without a TMDL, the information must demonstrate that the discharge of the pollutant for which the water is impaired will meet water quality criteria at the point of discharge to the waterbody. For discharges to waters with a TMDL, the information must demonstrate that there are sufficient remaining wasteload allocations to allow for the discharge, and the existing dischargers into the segment are subject to schedules of compliance designed to bring the segment into compliance with water quality standards. In order to be eligible under Part 1.1.4.6, the operator must demonstrate with data or other technical documentation in the SWPPP, along with the NOI submission, that the discharge will meet applicable water quality (A.A.C. R18-11-107.F).

If the discharge is to an upstream tributary within 2.5 miles of an impaired water, the applicant must submit their SWPPP along with the demonstration required above, with their NOI. The SWPPP must identify additional control measures needed to further minimize the discharge of pollutants to ensure that the discharge will not cause or contribute to the non-attainment of standards in the impaired water. ADEQ has 30 calendar days to review the NOI and SWPPP for discharges to impaired waters and notify the applicant in writing that: coverage is granted, request modifications to the SWPPP, or that the discharge is ineligible for coverage under this permit.

Note: In accordance with A.A.C. R18-11-109(D)(2), suspended sediment concentrations in surface waters within 48 hours of a local storm event are not used in assessing compliance with the water quality standard. Therefore, if a receiving water is impaired for suspended solids, turbidity or sediment/ sedimentation, a mine operator seeking authorization to discharge under the permit may satisfy the requirement of Part 1.1.4.5(1)(c)(i) of the permit either by not discharging only within the first 48 hours have elapsed after a local storm event, or by demonstrating that any discharge after that time satisfies the requirements of Part 1.1.4.6.

New Dischargers and New Sources to Outstanding Arizona Waters (Part 1.1.4.7). Per the antidegradation rules, coverage under the MSGP 2019 is not available for new discharges and new sources that discharge directly to waters designated as Outstanding Arizona waters (OAW). The MSGP 2010 and MSGP 2019 specifically reflects 40 CFR 131.12(a)(3) by indicating that any new or increased discharges to OAWs are ineligible for permit coverage. Except for certain temporary changes, water quality cannot be lowered in OAWs (see 40 CFR 131.12(a)(3).

This section also provides additional requirements for applicants seeking new or expanded discharges to tributaries upstream of an OAW. The applicant must prepare a SWPPP that demonstrates the discharge will not degrade water quality in the OAW and outline basic information that must be included with the SWPPP, including a sampling and analysis plan (SAP) for required water quality monitoring. If the discharge is within 2.5 miles of an OAW, the SWPPP must be submitted with the NOI. ADEQ has 30 calendar days to review NOIs for discharges to OAWs and notify the applicant in writing that: coverage is granted, request modifications to the SWPPP, or that the discharge is ineligible for coverage under this permit.

IV.B. Permit Compliance (Part 1.2)

Part 1.2 states that any failure to comply with the conditions of the permit constitutes a violation of the CWA. Where requirements and schedules for taking corrective actions are included, the time intervals are schedules considered reasonable for making repairs and improvements. For provisions specifying a time period to remedy noncompliance, the initial failure, such as a violation of a numeric or non-numeric effluent limitation, constitutes a violation of the MSGP and the CWA, and subsequent failure to remedy such deficiencies within the specified time periods constitutes an independent, additional violations of the permit and CWA.

IV.C. Authorization under the MSGP 2019 (Part 1.3)

Obtaining Authorization to Discharge (Part 1.3.1). To obtain authorization under the permit, operators must: meet the Part 1.1 eligibility requirements; select, design, install, and implement control measures in accordance with Part 2.1 to meet numeric limits and water quality standards; develop a SWPPP according to the requirements of A.A.C R18-9 C901(C) and submit a complete and accurate Notice of Intent (NOI) to ADEQ.

How to Submit Your NOI (part 1.3.1). The requirements in Part 1.3.1 clarify that operators must submit their NOIs electronically, using myDEQ. The applicant is authorized to discharge stormwater from an eligible site upon receipt of the Notice of Intent Certificate that is issued immediately after the completion and submission of a complete and accurate NOI and the receipt of the applicant's payment.

NOI Submission Deadlines (Table 1-2). ADEQ's discharge authorization is organized according to type of discharger. The majority of dischargers must file a complete and accurate NOI for coverage under the MSGP 2019 within 120 calendar days of the permit's date of issuance. A discussion of the Table 1-2 information follows:

- **Existing dischargers** in operation and authorized for coverage under MSGP 2010: no later than 60 calendar days from the effective date of 2019 MSGP. The operator's authorization under the MSGP 2010 is administratively continued until coverage under this or an alternative permit is granted, or a Notice of Termination (NOT) is submitted. Coverage begins upon the applicant's receipt of the Notice of Intent Certificate;
- **Other eligible dischargers** in operation but not covered under MSGP 2010 or another AZPDES permit, are granted 60 calendar days from the effective date of the 2019 MSGP. Coverage begins upon the applicant's receipt of the Notice of Intent Certificate;
- **New dischargers** commencing after issuance of the MSGP 2019, an NOI must be submitted at least 30 calendar days before discharge is anticipated. Coverage begins upon the applicant's receipt of the Notice of Intent Certificate;
- **Change of ownership** on to a new owner/ operator of an existing site (discharger) whose discharge is authorized under the permit: The permitted owner/ operator must submit an NOT to ADEQ within 30 calendar days after the new owner/ operator assumes responsibility for the site. At least seven (7) calendar days prior to taking operational control of the site, the new owner/ operator must submit a NOI to ADEQ. Coverage for the new owner / operator begins upon the applicant's receipt of the Notice of Intent Certificate.

- **Change in site location** to a new site location, whose discharge is authorized by this permit. The permitted owner/ operator must submit a NOT to ADEQ within 30 calendar days after the change in site location. At least seven (7) calendar days prior to taking operational control of the site, the site with the new site location must submit a NOI to ADEQ. Coverage begins upon the applicant's receipt of the Notice of Intent Certificate.
- **Change of site name** to a different site name whose discharge is authorized by this permit. The permitted owner/ operator must submit a NOT to ADEQ within 30 calendar days after the name change of the site. At least seven (7) calendar days prior to taking operational control of the site, the site with the new name must submit a NOI to ADEQ. Coverage begins upon the applicant's receipt of the Notice of Intent Certificate.
- **Change to a NOI-** The permittee is required to submit a revised (modified) NOI for the following changes to their previous NOI application: site contact, site discharges to MS4, sector, subsector, co-located facilities, acreage exposed to industrial stormwater, primary industrial activity acreage exposed to stormwater, co-located industrial activities acreage exposed to stormwater, SWPPP contact, outfall name, outfall location, number of outfalls, outfalls that are inactivated, receiving water, receiving water type, sampling type, and claiming inactive and unstaffed site status (or reverting back to active and staffed). The modification to the NOI shall take place within 30 days of the change.

If ADEQ does not receive a complete and accurate NOI certifying that the eligibility requirements of Part 1 of the permit have been met, ADEQ will notify the applicant/operator that the application is deficient or incomplete. In some cases, the applicant/operator may be required to implement additional controls before ADEQ will authorize stormwater discharge.

If the applicant seeks authorization for a new discharge and a new source to an impaired water, a copy of the SWPPP, along with the NOI, must be submitted to the Department. The Department will review the SWPPP to determine whether the selected BMPs and control measures are sufficiently protective of water quality. In some cases, the applicant/operator may be required to implement additional controls before ADEQ will authorize stormwater discharge.

An applicant/operator will be authorized to commence discharging upon receipt of ADEQ's authorization document called a NOI Certificate that contains a unique "AZMSG—" authorization number.

The condition to provide a copy of the NOI to the applicable Municipal Separate Storm Sewer System (MS4) has been removed from the permit requirements. The public can contact ADEQ's Record Management Center (RMC) to determine if a site has stormwater permit coverage and in the future the Department will provide a searchable database for stormwater permits that the public can access.

Continuation of this permit (Part 1.3.2). If this permit is not reissued or replaced (or revoked or terminated) prior to its expiration date, the Department has the authority to administratively extend coverage for existing dischargers, in accordance with A.A.C. R18-9-C903(A). If coverage is provided to a permittee prior to the expiration date of the MSGP 2019, the permittee is authorized to discharge under the permit until the earliest of: (1) the authorization for coverage under a reissuance or replacement of the permit, following timely and appropriate submittal of a complete NOI; (2) submittal of a Notice of Termination; (3) denial of coverage under the MSGP 2019, or issuance or denial of an individual AZPDES permit for the permittee's discharges; or (4) a formal permit decision by ADEQ not to reissue the permit, at which time the Department will identify a reasonable time period for covered dischargers to seek

coverage under an alternative general permit or an individual permit. Coverage under the 2019 MSGP will cease at the end of this time period.

ADEQ reserves the right to modify or revoke and reissue the 2019 MSGP under 40 CFR 122.62 and 63, in which case permittees will be notified of any relevant changes or procedures to which they may be subject. Where ADEQ does not issue another general permit prior to the expiration of a previous one, ADEQ does not have the authority to provide coverage to industrial operators not already covered under that prior general permit.

IV.D. Coverage under Alternative Permits (Part 1.4)

This section describes the procedures for obtaining an alternative permit. The following are scenarios in which an alternative permit may be required: 1) a new or previously permitted site is denied coverage under the MSGP; 2) an existing site covered under the 2019 MSGP loses their authorization under the MSGP; or 3) a permittee requests to be covered under an alternative permit.

After the submittal of a complete and accurate NOI, operators may be notified in writing by ADEQ that they are not covered under the 2019 MSGP, and that they must apply for and/or obtain coverage under either an individual AZPDES permit or an alternate general AZPDES permit. This notification will include a brief statement of the reasons for this decision and will provide application information or NOI requirements.

If an operator is currently covered under a previously issued MSGP or the 2019 MSGP, the notice will set a deadline to file the permit application or NOI for an individual permit or alternative general permit, and will include a statement that on the effective date of the individual AZPDES permit or the date of coverage under an alternative general AZDES permit, coverage under this general permit will terminate. ADEQ may grant additional time to submit the application or NOI if the permittee requests it. If a permittee fails to submit an individual AZPDES permit application or NOI as required by ADEQ, the applicability of the MSGP is terminated at the end of the day specified by ADEQ as the deadline for application or NOI submittal. If a timely permit application or NOI is submitted, coverage under the MSGP is terminated on the effective date of the coverage under the alternative permit.

IV.E. Terminating Coverage (Part 1.5)

The purpose of submitting a Notice of Termination (NOT) is to document that a permittee's obligation to manage industrial stormwater is no longer necessary.

When to Submit a Notice of Termination. The permittee must submit an NOT within 30 calendar days after:

- A new owner or operator has assumed ownership or responsibility for the site.
- The site changes locations (i.e. change in geographic coordinates).
- The site changes the name (i.e. *from ABC Inc to ABC LLC*).

The permittee may submit an NOT after one or more the following conditions have occurred:

- The permittee has ceased operations at the site, there are not or will be no further industrial stormwater discharges and the site has implemented the necessary sediment and erosion controls measures;

- The site meets the requirements for a No Exposure Certification and has obtained NEC coverage; or
- The permittee obtained coverage under an individual or alternative general permit for all discharges required to be covered by an AZPDES permit; or
- There are no longer discharges of stormwater to Waters of U.S., either directly or by way of conveyance) storm sewer, street, ditch, etc).

The NOT must be submitted electronically through ADEQ's online permitting process (myDEQ).

Coverage under the MSGP terminates automatically only when the permittee obtains coverage under an individual or alternative general permit for all discharges requiring AZPDES permit coverage. This could happen either because ADEQ required it (see Part 1.4 of the permit) or the permittee petitioned ADEQ requesting coverage under an alternative permit. See A.A.C. R18-9-A902(A) and R18-9-A902(B).

IV.F. Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements (Part 1.6)

It is impracticable for mining facilities that are inactive and unstaffed to make staff and resources available for stormwater monitoring, considering that the outfall locations are often remote and the stormwater events occur at times that are unpredictable.

The permit gives operators the flexibility for mining facilities to become inactive and unstaffed, but keep permit coverage active, if they plan to recommence any industrial activity in the future. To qualify for this exception, permittees must maintain a signed certification with their additional documentation (Part 5.6 of the permit) that indicates that the site is inactive and unstaffed. Permittees are not required to obtain advance approval for this exception. Operators of Sectors G and J sites have no requirement, subject to certain conditions in Part 1.6, to certify that "there are no industrial materials or activities exposed to stormwater." These sectors may qualify for this exception even where some industrial activities or materials are exposed to stormwater.

Inactive and unstaffed mine sites must be inspected at least once per year (one routine inspection), and more frequently where the operator has reason to believe that severe weather or natural occurrences may have damaged control measures or increased discharges. Where inspections are not practical at inactive and unstaffed mine sites, the permittee shall submit an Inactive and Unstaffed Site Certification Form within one year of obtaining permit coverage. The form shall include an explanation why inspections are impracticable at the mine site. Inactive and unstaffed mine facilities where it has been determined that annual inspections are impracticable, shall be inspected once every three years (tri-annual). Tri-annual inspections must be conducted in accordance with Section 4.0, and signed by a Registered Professional Engineer in the state of Arizona (40 CFR 122.44.B.4.iv), certifying that the site is in compliance with the permit, or alternative requirements using the Inactive and Unstaffed Site Certification Form. The permittee shall also inspect the site whenever there is a reasonable expectation that severe weather or other events may have damaged control measures or increased discharges.

Also, if a site is inactive and unstaffed, the permit authorizes the operator to forego visual monitoring requirements without having to certify that "there are no industrial materials or activities exposed to stormwater", as is required of other non-mining facilities, provided that

certain conditions are met in Part 1.6. A general analytical monitoring exclusion/ exception is provided for mining sites because of the impracticability/ infeasibility of reaching these sites during qualifying storm events.

Permittees should make reasonable effort to secure the site in order to minimize the potential for discharge of pollutants in stormwater. Such efforts should include removing, covering or otherwise containing industrial materials used in the operations, if applicable. Such actions may include ensuring that valves are closed and secured, where appropriate, and following the good housekeeping measures that are outlined in the site's SWPPP, such as properly labeled materials, and clean up trash, debris and other materials.

The permit clarifies that if circumstances change and the site becomes active and/or staffed, this exception no longer applies and the permittee must immediately begin complying with the applicable inspections (Parts 4.1), visual assessment monitoring (Part 4.2) and general analytical monitoring requirements (Part 6.2.1) as if the site was in the first year of permit coverage. Also, the permittee must notify ADEQ of the change within 30 day of changing to inactive and unstaffed (or reverting back to active and staffed status), by modifying the NOI. Likewise, if the permittee does not qualify for this exception at the time the site is authorized under the permit, but during the permit term it becomes inactive and unstaffed, the permittee must prepare and sign the statement in the SWPPP concerning the site's qualification for this special exception.

ADEQ retains the authority to revoke this exemption and/or the monitoring exemption where it is determined that the discharge causes, has a reasonable potential to cause, or contribute to an exceedance of an applicable water quality standard, effluent limitation guideline and or a Wasteland Allocation (WLA).

V. Effluent Limitations and Control Measures (Part 2)

V.A. Water Quality Based Effluent Limitations and Control Measures (Part 2)

Part 2 describes the requirements for implementation of stormwater control measures to minimize the discharge of pollutants and meet numeric technology-based effluent limitations and water quality-based requirements. Part 2.2 requires operators to implement, as appropriate, control measures listed in the permit. In previous permits, these were referred to as best management practices (BMPs) and are now referred to as control measures. Additional control measures may be required for discharges to Arizona listed water quality impaired waters (Part 2.1.1 of the permit).

V.A.1. Introduction to CWA Requirements to Control Pollutants in Discharges

Water quality-based requirements are required by CWA Section 301(b)(1)(C). Water quality-based requirements are discussed in greater depth in Section V.C. The CWA requires that discharges from existing facilities, at a minimum, must meet technology-based effluent limitations reflecting, among other things, the technological capability of permittees to control pollutants in their discharges. Both technology-based effluent limitations and water quality-based requirements are implemented through NPDES permits. See CWA sections 301(a) and (b).

V.A.2. Numeric and Water-Quality Based Effluent Limitation

The MSGP 2019 includes water quality-based effluent limits (WQBELs) and effluent limitation guidelines. The provisions of Part 2.1 constitute the numeric technology based effluent limitations and WQBELs of the permit. The WQBELs are the Water Quality Standards applicable to the receiving water in A.A.C. R18-11, Article 1. In the permit WQBELs are either referred to as the Water Quality Standards or water quality-based requirements to distinguish them for technology based effluent limitations.

V.A.3 Water Quality-Based Standards and Numeric Effluent Limitations (Part 2.1)

The provisions of Part 2.1 constitute the WQBELs of the 2019 MSGP, and supplement the permit's technology-based effluent limits in Part 2.2. The following is a list of the permit's WQBELs:

- Control discharges as necessary to meet applicable water quality standards (discharges must not cause or contribute to a violation of applicable water quality standards) (See Part 2.1.1);
- Implement any additional measures that are necessary to be consistent with the assumptions and requirements of the applicable Total Maximum Daily Load (TMDL) and its wasteload allocation (See Part 2.1.1.1.a). For discharges to impaired waters without a TMDL, conduct impaired waters monitoring (See Part 2.1.1.1.b.). Additionally, new discharges to impaired waters must implement any measures required per the Part 1.1.4.6 eligibility requirements;
- Implement any additional measures that ADEQ determines are necessary to comply with applicable antidegradation requirements for discharges (see Part 2.1.1.2).

The WQBELs included in the permit continue to be non-numeric. ADEQ relies on a narrative limit to ensure discharges are controlled as necessary to meet applicable water quality standards, and to ensure that additional measures are employed where necessary to meet the narrative WQBELs, or to be consistent with the assumptions and requirements of an applicable TMDL and its WLA, or to comply with the antidegradation requirements.

V.A.3.1 Water Quality Standards (Part 2.1.1)

Each permittee is required to control its discharge as necessary to not cause or contribute to an exceedance of applicable water quality standards. ADEQ expects that compliance with the other conditions in the permit (e.g., the control measures, corrective actions, etc.) will result in discharges that are controlled as necessary to not cause or contribute to an exceedance of water quality standards in the receiving water body. If the permittee becomes aware, or ADEQ determines, that the discharge causes or contributes to a water quality standards exceedance, corrective actions and ADEQ notification are required. In addition, at any time ADEQ may impose additional, more stringent water quality-based requirements on a site-specific basis, or require an individual permit, if information suggests that the discharge is not controlled as necessary to meet applicable water quality standards.

V.A.3.2 Existing Discharge to an Impaired Water with an Approved TMDL (Part 2.1.1.1.a)

This Section specifies ADEQ may inform permittees that additional requirements are necessary for the discharge to be consistent with the assumptions and requirements of an applicable TMDL and its wasteload allocation (WLA). Where an operator indicates on its NOI that a discharge is to one of the types of waters this section covers, ADEQ will review the applicable TMDL to determine whether it includes provisions that apply to the individual discharger or its industrial sector. ADEQ will determine whether any more stringent requirements are necessary to comply with the WLA, whether compliance with the existing permit limits is sufficient, or, alternatively, whether an individual permit application is necessary.

V.A.3.3 Existing Discharge to an Impaired Water without an Approved TMDL (Part 2.1.1.b)

This section reiterates the requirement for permittees that discharge to an impaired water without an approved or established TMDL, must still control the discharge as necessary to meet water quality standards (Part 2.1.2). ADEQ expects permittees will achieve this if they comply with other requirements in the permit including monitoring requirements for impaired water discharges in Part 6.2.3. However, if information in the NOI, required reports, or from other sources indicates that discharges are not controlled as necessary to meet applicable water quality standards, ADEQ may inform operators of the need to implement additional measures on a site-specific basis to ensure the WQBEL is met, or, alternatively, of the need to apply for an individual permit.

V.A.3.4 New Discharge to an Impaired Water (Part 2.1.1.1.c.)

This provision requires permittees that are "new sources" or meet the definition of "new discharger" (see Appendix A) that discharge to impaired waters, to maintain control measures that have been implemented to meet the eligibility requirements of Part 1.1.4.6.

V.A.3.5 Tier 2 Antidegradation Requirements for New Discharges, New Sources or Increased Discharges (Part 2.1.1.2)

This section applies to new dischargers, new sources, and existing permittees that discharge to tributaries of OAWs. These added protections are included in Part 1.1.4.7 and require demonstrations in order to discharge to OAWs; and Part 6.2.4 which requires additional monitoring for discharges to OAWs.

For antidegradation purposes, permittees must implement any additional measures that ADEQ determines are necessary to comply with the permit's WQBEL, including the applicable state or federal antidegradation requirements (A.A.C. R18-11-107.01.C). ADEQ may also, per the applicable antidegradation policy, notify permittees that they cannot be covered under the MSGP due to the unique characteristics of the discharge or the receiving waters, and that they must apply for an individual permit. If ADEQ does not notify a permittee that additional measures are needed to ensure compliance with antidegradation requirements, the permittee is authorized to discharge under the permit. New dischargers to waters designated as Tier 3, as defined in 40 CFR 131.12(a)(3), are not eligible for coverage under the 2019 MSGP and must apply for an individual permit.

V.B. Explanation of the Use of Control Measures to Meet the Permit Limits

Control measures can be actions (including processes, procedures, schedules of activities, prohibitions on practices and other management practices), or structural or installed devices to prevent or minimize water pollution. There are many options that accomplish the objective of preventing pollutants from entering waters of the U.S. and meeting applicable limits.

The broader term "Control measures" has replaced "best management practices" and "BMPs" in the MSGP 2019. This change was adopted to better describe the range of pollutant reduction practices that may be employed, whether they are structural, non-structural or procedural. In addition, the definition of "control measures" in Appendix A of the permit includes both BMPs and "other methods" used to prevent or minimize the discharge of pollutants to receiving waters. The greater breadth of meaning of control measures versus BMPs is why ADEQ uses this term in Part 2.1, and throughout the permit.

The MSGP requires industrial site operators to select, design, install, and implement site-specific control measures to meet these limits. Most industrial facilities already have such control measures in place for product loss prevention, accident and fire prevention, worker health and safety or to comply with other environmental regulations. Sometimes, treatment devices or constructed/installed controls may be necessary, particularly where a site might otherwise cause or contribute to a violation of water quality standards.

There are many control measures that could be used to meet the limits in the permit. The following are helpful resources for developing and implementing control measures for a site that can obtained through the web:

- Sector-specific Industrial Stormwater Fact Sheet Series (http://water.epa.gov/polwaste/npdes/stormwater/Industrial-Fact-Sheet-Series-forActivities-Covered-by-EPAs-MSGP.cfm);
- National Menu of Stormwater BMPs (http://water.epa.gov/polwaste/npdes/swbmp/index.cfm); and
- National Management Measures to Control Nonpoint Source Pollution from Urban Areas (http://water.epa.gov/polwaste/nps/urban/).

Part 2.2 requires the operator to select, design, install and implement control measures to meet the numeric effluent limitations and water quality standards listed in Part 2.1. The selection, design and implementation of these control measures must be in accordance with good engineering practices and manufacturer's specifications. If operators find their control measures are not minimizing pollutant discharges adequately, the control measures must be modified as expeditiously as practicable.

V.B.1. Control Measure Selection and Design Considerations (Part 2.1.1)

The permit requires permittees to implement appropriate control measures (found in Parts 2.2 and 8 of the permit). ADEQ expects that the implementation of control measures will result in the reduction or elimination of pollutants from the operator's stormwater discharge to meet the effluent limitations and water quality standards in the permit. The permittee is not limited to control measures specified in the permit. ADEQ encourages permittees to consider new control measures or new applications of existing practices at times during permit coverage when adjustments to their selection, design and implementation are being considered (e.g., when

corrective action is triggered). This will help ensure that control measures continue to reflect best industry practice.

In Part 2.2 operators are required to consider certain factors when selecting control measures, including:

- Preventing stormwater from coming into contact with polluting materials is generally more effective and less costly than trying to remove pollutants from stormwater;
- Using combinations of control measures is more effective than using control measures in isolation for minimizing pollutants;
- Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to determining which control measures will achieve the limits in the permit;
- Attenuating high discharge flows, such as using open vegetated swales and natural depressions to reduce in-stream impacts of erosive flows;
- Conserving and restoring riparian buffers will help protect streams from stormwater runoff and improve water quality; and
- Using containment to intercept stormwater flows before they leave the site. At mining sites, especially large active sites, preventing stormwater from contacting polluting materials is generally not feasible. Directing flows to non-discharging areas (pits), or installing runoff containment, may be the most appropriate control measure for minimizing the discharge of pollutants.

Non-Numeric Technology-Based Effluent Limits (Part 2.2.1.2)

The MSGP requires permittees to comply with non-numeric technology-based effluent limits, pursuant to 40 CFR 122.44(k), by implementing stormwater control measures. The achievement of these non-numeric limits will result in the reduction or elimination of pollutants in stormwater discharges. The requirements in Part 2 are the effluent limits applicable to all discharges associated with industrial activity for all sectors, while additional sector-specific effluent limits are found in Part 8.

The following is a summary of the types of control measures permittees should evaluate and implement as appropriate in order to minimize pollutants in stormwater discharges:

Minimize Exposure to Stormwater (Part 2.2.1.2.1). The permit directs the permittee to minimize the exposure of manufacturing, processing, and material storage areas to precipitation and runoff through a number of options. ADEQ uses similar language to EPA's permit and requires the permittee to minimize exposure by implementing one or more of the suggested protections as determined appropriate for the site and location.

To the extent technologically available and economically practicable and achievable, locate industrial materials and activities inside or protect them with storm-resistant coverings. This is one of the most important control options. In minimizing exposure, the permittee should pay particular attention to manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, and cleaning, maintenance, and fueling operations). Minimizing exposure prevents pollutants from coming into contact with precipitation and can reduce the need for control measures to treat or otherwise reduce pollutants in stormwater runoff. Examples include covering materials or activities with temporary structures (e.g., tarps) when

wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even the simple practice of keeping a dumpster lid closed can be very effective. While the permit requires consideration of exposure minimization, neither EPA nor ADEQ recommends significantly increasing impervious surfaces to achieve it.

Good Housekeeping (Part 2.2.1.2.2). Keep all exposed areas that are potential pollutant sources clean. Good housekeeping is an inexpensive way to maintain a clean and orderly site and keep contaminants out of stormwater discharges. Often the most effective first step towards preventing pollution in stormwater from industrial sites simply involves using common sense to improve the site's basic housekeeping methods. Poor housekeeping can result in more stormwater running off a site than necessary and an increased potential for stormwater contamination. A clean and orderly work area reduces the possibility of accidental spills caused by mishandling of chemicals and equipment. Well-maintained material and chemical storage areas will reduce the possibility of stormwater mixing with pollutants.

There are some simple procedures a site can use to implement the good housekeeping control measure, including improved operation and maintenance of industrial machinery and processes, improved materials storage practices, better materials inventory controls, more frequent and regular clean-up schedules, maintaining well organized work areas, and education programs for employees about all of these practices.

Examples of methods to implement the good housekeeping measure include containerizing materials appropriately, storing chemicals neatly and orderly; maintaining packaging in good condition; promptly cleaning up spilled liquids; sweeping, vacuuming or other cleanup of dry chemicals and wastes to prevent them from reaching receiving waters, and using designated storage areas for containers or drums to keep them from protruding where they can be ruptured or spilled. Proper storage techniques can include:

- Providing adequate aisle space to facilitate material transfer and easy access for inspections;
- Storing containers, drums, and bags away from direct traffic routes to prevent accidental spills;
- Stacking containers according to manufacturers' instructions to avoid damaging the containers from improper weight distribution;
- Storing containers on pallets or similar devices to prevent corrosion of the containers, which can result when containers come in contact with moisture on the ground; and
- Assigning the responsibility of hazardous material inventory to a limited number of people who are trained to handle hazardous materials.

Maintenance (Part 2.2.1.2.3). Regularly inspect, test, maintain and repair or replace all industrial equipment and systems to prevent releases of pollutants to stormwater. Maintain all control measures in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel trained).

Most facilities will already have preventive maintenance programs (PMPs) that provide some environmental protection. Preventive maintenance involves regular inspection and testing of equipment and operational systems to uncover conditions such as cracks or slow leaks that could cause breakdowns or failures that result in discharges of pollutants to storm sewers and surface water. To prevent breakdowns and failures operators should adjust, repair or replace equipment.

As part of a typical PMP, operators must include regular inspection and maintenance of stormwater management devices and other equipment and systems. Operators should identify the devices, equipment and systems that will be inspected; provide a schedule for inspections and tests; and address appropriate adjustment, cleaning, repair or replacement of devices, equipment and systems. For stormwater management devices such as catch basins and oil-water separators, PMPs should include the periodic removal of debris to ensure that the devices are operating efficiently. For other equipment and systems, there should be procedures to reveal and correct conditions that could cause breakdowns or failures that may result in the release of pollutants.

The PMP should include a suitable records system for scheduling tests and inspections, recording test results and facilitating corrective action. The program should be developed by qualified plant personnel who evaluate the existing plant and recommend changes as necessary to protect water quality.

Spill Prevention and Response Procedures (Part 2.2.1.2.4). Minimize the potential for leaks, spills and other releases, which are major sources of stormwater pollution, to be exposed to stormwater. The purpose of this control measure is not only to prevent spills and leaks but, in the event one does occur, to limit environmental damage via development of spill prevention and response procedures. Operators should identify potential spill areas and keep an inventory of materials handled, used and disposed of. Based on an assessment of possible spill scenarios, permittees must specify appropriate material handling procedures, storage requirements, containment or diversion equipment, and spill cleanup procedures that will minimize the potential for spills and, in the event of a spill, ensure proper and timely response.

Areas and activities that typically pose a high risk for spills include loading and unloading areas, storage areas, process activities, and waste disposal activities. These activities and areas, and their accompanying drainage points, must be addressed in the procedures. For a spill prevention and response program to be effective, employees should clearly understand the proper procedures and requirements and have the equipment necessary to respond to spills.

The following are suggestions to incorporate into spill prevention and response procedures:

- Install leak detection devices, overflow controls and diversion berms;
- Perform visual inspections and identify signs of wear;
- Perform preventive maintenance on storage tanks, valves, pumps, pipes and other equipment;
- Use filling procedures for tanks and other equipment that minimize spills;
- Use material transfer procedures that reduce the chance of leaks or spills;
- Substitute less toxic materials;
- Ensure that clean-up materials are available where and when needed;
- Ensure appropriate security;
- Notify emergency response agencies where necessary

In the event of a spill, it is important that the site have clear, concise, step-by-step instructions for responding to spills. The approach will depend on the specific conditions at the site such as size, number of employees and the spill potential of the site.

Erosion and Sediment Controls (Part 2.2.1.2.5). Permittees must stabilize and contain runoff from exposed areas to minimize onsite erosion and sediment creation, and the accompanying

discharge of pollutants (other pollutants can bind to soil and other particles and be discharged along with the sediment).

Operators must select, design, install and implement controls to address the on-site exposed areas prone to soil erosion. Erosion control practices such as seeding, mulching and sodding prevent soil from becoming dislodged and should be considered first. Sediment control practices such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control practices, such as flow velocity dissipaters and sediment catchers, should be used to back-up erosion control practices.

Management of Runoff (Part 2.2..1.2.6). Operators must divert, infiltrate, reuse, contain or otherwise reduce stormwater runoff to minimize pollutants in the discharge. Employ practices that direct the flow of stormwater away from areas of exposed materials or pollutant sources. Such practices can also be used to divert runoff that contains pollutants to natural areas or other types of treatment locations.

Operators may consider vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet detention/retention basins. If infiltration is a selected control, permittees should pay special attention to the discussion in Section II.B of this Fact Sheet entitled, "Underground Injection Control Regulations".

Salt Storage Piles or Pile Containing Salt (Part 2.2.1.2.7). Enclose or cover piles of salt or piles containing salt used for deicing or other industrial purposes. Implement appropriate measures to minimize the exposure of the piles during the adding to or removing from processes.

Options for implementing the salt pile control measure include covering the piles or eliminating the discharge from such areas of the site. Preventing exposure of piles to stormwater or run-on also eliminates the economic loss from materials being dissolved and washed away. A permanent under-roof storage site is the best way to protect chemicals from precipitation and runoff, but where this is not possible, salt piles can be located on impermeable bituminous pads and covered with a waterproof cover.

Employee Training (Part 22.1.2.8). Operators must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of the permit. Training must cover both the specific control measures used to achieve the requirements in Part 2.1, (only for those who will be involved in these activities) and the monitoring, inspection, planning, reporting, and documentation requirements in other parts of the permit.

The majority of employees at a mine (e.g., haulage equipment operators) will never be asked to do stormwater monitoring, inspections, reporting, etc. Therefore, training everyone at a mine site in those obligations is unnecessary. This aspect of training is limited to those performing the tasks in question. Likewise, at an inactive/ unstaffed site (see Section IV.E), the training requirement applies to qualified persons who conduct the annual comprehensive site inspections at these inactive/ unstaffed sites. The Department does not expect trained staff to permanently occupy these inactive/ unstaffed sites.

Employee training programs should thoroughly educate members of the Stormwater Pollution Prevention Team on their roles in implementing the control measures employed to meet the limits in the permit. Training should address the processes and materials on the plant site, good housekeeping practices for preventing discharges, and procedures for responding

properly and rapidly to spills or other incidents. The training program should also address other requirements in the permit such as inspections and record-keeping.

Training sessions should be conducted at least annually to assure adequate understanding of the objectives of the control measures and the individual responsibilities of each employee. More frequent training may be necessary at facilities with high employee turnover or where stormwater programs are involved or multi-faceted. Often, training could be a part of routine employee meetings for safety or fire protection. Where appropriate, contractor personnel also must be trained in relevant aspects of stormwater pollution prevention.

Training sessions should review all aspects of the control measures and associated procedures. Facilities should conduct spill or incidence drills on a regular basis which can serve to evaluate the employee's knowledge of the control measures and spill procedures and are a fundamental part of employee training. Such meetings should highlight previous spill events or failures, malfunctioning equipment and new or modified control measures.

Non-Stormwater Discharges (Part 2.2.1.2.9). Eliminate non-stormwater discharges that are not authorized by an AZPDES permit. This limit is intended to reinforce the fact that, with the exception of the allowable non-stormwater discharges listed in Part 1.1.3, non-stormwater discharges are ineligible for coverage, pursuant to Part 1.1.4.1. Stormwater discharges that are mixed with non-stormwater sources, other than those specifically identified in and managed in compliance with the permit are not authorized. Non-stormwater discharges that are authorized under a different NPDES/ AZPDES permit may be commingled with discharges authorized under the MSGP 2019.

Where an allowable non-stormwater discharge has been identified, the permittee must document in the SWPPP the location of that discharge and the appropriate control measures implemented to meet limits. Operators must manage all non-stormwater discharge activities in a manner that does not cause nuisance conditions, including erosion in receiving channels or on surrounding properties. In many cases, the same types of controls for contaminated stormwater will suffice for non-stormwater discharges, but the nature and volume of potential pollutants in the non-stormwater discharges must be considered when selecting controls.

Superchlorinated wastewaters (i.e., containing chlorine above residual levels acceptable in drinking water systems) must be retained on-site until the chlorine dissipates, or until the water is otherwise effectively dechlorinated prior to discharge. As with any non-stormwater, if permitted by the local sanitary sewer authority, this wastewater may be discharged to the sanitary sewer. In this case, dechlorination is not required.

Operators needing help in finding and eliminating unauthorized discharges may find the following EPA guidance helpful: *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Chapters 7, 8, 9 on EPA's website.

Litter, Garbage, and Floatable Debris. This section is now incorporated under *Good Housekeepin*g. The following discussion provides expectations as it relates to litter, garage and floatable debris at mine sites.

Trash can cause physical impairments in waterbodies to aquatic species and birds and is also visual pollution and detracts from the aesthetic qualities of receiving waters. Operators must ensure that litter, garbage and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they leave the site.

The Department does not expect Sector G and J permittees to actively search out garbage or litter that may be left on remote areas of their sites by trespassers. However, if materials left by trespassers are carried onto the active areas of the site, either by water or wind, permittees would be expected to control its discharge.

This control measure may be implemented either through source control or structural control measures. For instance, to prevent garbage from being carried in runoff to receiving waters, source control would include personnel education, improved infrastructure and cleanup campaigns. Education, such as informing employees about options for recycling and waste disposal and about the consequences of littering, is one of the best ways. Another topic that should be emphasized is proper trash storage and disposal. Improved infrastructure can include optimizing the location, number, and size of trash receptacles, recycling bins, and cigarette butt receptacles based on expected need. Clean-up campaigns are an effective way to reduce trash. Facilities should determine whether the number and placement of receptacles are adequate and if regular maintenance activities (e.g., sweeping, receptacle servicing) are preventing litter from entering receiving waters. Structural controls to prevent garbage from being carried in runoff to receiving waters include physical filtering structures and continuous deflection separation. Filtering structures concentrate diffuse, floating debris and prevent it from traveling downstream. Some examples are trash racks, mesh nets, bar screens and trash booms. Continuous deflection separation targets trash from storm flows during and after heavy precipitation.

Dust Generation and Vehicle Tracking of Industrial Materials (Part 2.2.1.10). Operators must minimize generation of dust and off-site tracking of raw, final or waste materials.

Dust control practices can reduce the activities and air movement that cause dust to be generated. Airborne particles pose a dual threat to the environment and human health. Dust carried off-site increases the likelihood of water pollution. Control measures to minimize the generation of dust include:

- *Vegetative Cover.* In areas not expected to handle vehicle traffic, vegetative stabilization of disturbed soil is often desirable. By establishing a vegetative cover, exposed soil is stabilized and wind velocity at ground level can be reduced, thus reducing the potential for dust to become airborne.
- *Mulch.* Mulching can be a quick and effective means of dust control for a recently disturbed area.
- *Wind Breaks.* Wind breaks are barriers (either natural or constructed) that reduce wind velocity through a site which then reduces the possibility of suspended particles. Wind breaks can be trees or shrubs left in place during site clearing or constructed barriers such as a wind fence, snow fence, tarp curtain, hay bale, crate wall or sediment wall.
- *Stone.* Stone can be an effective dust deterrent in areas where vegetation cannot be established.
- *Spray-on Chemical Soil Treatments (Palliatives).* Examples of chemical adhesives include anionic asphalt emulsion, latex emulsion, resin-water emulsions and calcium chloride. Chemical palliatives should be used only on mineral soils. When considering chemical application to suppress dust, determine whether the chemical is biodegradable or water-soluble and what effect its application could have on the surrounding environment, including waterbodies and wildlife.

To reduce vehicle tracking of materials, the operator should keep stored or spilled materials away from all roads within the site. Specific measures such as setting up a wash site or separate pad to clean vehicles prior to their leaving the site may be effective as well.

V.B.2 Numeric Effluent Limitations Based on Effluent Limitations Guidelines (Part 2.2.2)

This section requires permittees to comply with any applicable federal effluent limitations guidelines. The following describes where these limits can be found in the permit. The following table corresponds to Table 2-2 in the permit.

Applicable Effluent Limitations Guidelines		
Regulated Activity	**40 CFR Part/Subpart**	**Effluent Limit**
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, or D	See Part 8.J.9

VI. Corrective Actions (Part 3)

A permittee must take corrective actions to eliminate or correct a problem if any of the conditions in this part are met. The provisions in Part 3 specify the types of conditions at the site that trigger corrective action requirements, what must be done to eliminate such conditions or conduct further inquiries into their cause, and the deadlines for completing corrective action.

A summary of corrective actions initiated and/or completed is required to be summarized in a Corrective Action Report (CAR) and shall be kept with the SWPPP.

Conditions Requiring Corrective Action (Part 3.1.1)

For the 2019 MSGP, ADEQ has differentiated conditions that trigger a corrective action based on whether the condition needs to be eliminated. The following conditions require corrective action

- An unauthorized release or discharge from the site (e.g., non-stormwater discharge not authorized by this or another AZPDES permit to a water of the U.S.);
- The permittee becomes aware, or ADEQ determines, that the site's discharge causes or contributes to an exceedance of applicable water quality standard(s) in the receiving water (Part 2.1.1);
- A discharge from the site to water listed as not-attaining (or to an upstream tributary within 2.5 miles) exceeds a waste load allocation (WLA) for the pollutant(s) causing the impairment (Part 2.1.1.1);
- A discharge from the site to an impaired water (or to an upstream tributary within 2.5 miles) exceeds an applicable surface water standard for the pollutant(s) causing the impairment (Part 2.1.1.1)) (see Part 6.2.3 for exceptions);

- A discharge from the site to an Outstanding Arizona Water (or to an upstream tributary within 2.5 miles) exceeds the applicable surface water quality standard (Part 2.1.1.2); or
- A discharge from the site violates a numeric effluent limitation guideline in Table 2.2 and in Part 8 sector- specific requirements.

Permittees are required to review and revise the selection, design, installation, and implementation of their control measures when any of the conditions described below has occurred.

Substantially Identical Outfalls (Part 3.1.2)

If the event triggering corrective action is linked to an outfall that represents other substantially identical outfalls, the permittee's review must assess the need for corrective action for each outfall (as practicable) represented by the outfall that triggered the review. Any necessary changes to control measures that affect these other outfalls must also be made before the next storm event if possible, or as soon as practicable following that storm event.

Corrective Action Documentation, Deadlines and Reporting (Part 3.2)

The permit includes specific deadlines for permittees to take corrective actions. The permit requires that within 72 hours following identification or discovery of any of the conditions listed in Parts 3.1.1, the permittee must document such discovery. Subsequently, within 14 calendar days of the discovery, the permittee must document corrective actions taken or to be taken to eliminate the condition and any additional review necessary to further investigate the condition. If the permittee determines that changes are necessary following the review, any modifications to the control measures must be made before the next storm event if possible, or as soon as practicable following that storm event.

Corrective Action Reporting

The 2019 MSGP requires the permittee to submit a Corrective Action Report to ADEQ on a form prescribed by the Department. If electronic reporting becomes available, the CAR must be submitted electronically.

Permittees must submit a CAR within 30 days of discovery of a condition in Part 3.1.1. In addition to submitting the CAR to ADEQ, a copy must also be kept with the SWPPP and be made available to ADEQ upon request.

VII. Inspections (Part 4)

In the 2019 MSGP, ADEQ has consolidated the inspection and documentation requirements into four (4) routine site inspections. The Comprehensive Site Inspection (CSI) requirement was removed in the 2019 MSGP, but key elements of the CSI were incorporated into the routine inspections.

Part 4 describes the inspection and evaluation of the performance of existing stormwater control measures. Generally, the permit requires all site operators to conduct two types of inspections every year: four routine quarterly inspections and four visual assessments (two in the summer and two in the winter wet seasons – see Section IX.A.4 of this Fact Sheet). Inactive and unstaffed sites qualify for certain exceptions..

VII.A. Routine Site Inspections (Part 4.1)

Permittees are required to conduct four routine inspections (RFIs), at least quarterly, of all areas of the site where industrial materials or activities are exposed to stormwater, and of all stormwater control measures used to comply with the requirements in Part 2.0 of the MSGP. A routine site inspection provides permittees with a mechanism to ensure that developing problems are detected and addressed early and helps ensure that stormwater control measures are adequate and are operated and maintained properly.

Qualified personnel must conduct the routine site inspections with at least one member of the Pollution Prevention Team participating. If only one person regularly conducts the inspection, that individual must be the Pollution Prevention Team member. Because some equipment, processes, and procedures may require more frequent inspections, the relevant inspection schedules must be documented in the SWPPP. For example, inspection of outdoor areas associated with regular industrial activity may require more frequent inspections to ensure that that the site is swept, garbage picked up, drips and spills cleaned, etc. on a regular basis.

During each calendar year, at least one of the routine inspections must be conducted during a period when a stormwater discharge is occurring if practicable. This inspection will enable permittees to identify sources of pollutants discharged in stormwater runoff from the site, and to actively observe the effectiveness of control measures implemented to comply with effluent limits. Discharge points, as defined in Appendix A, must also be observed during this inspection. If such discharge locations are inaccessible, nearby downstream locations must be inspected. If there is no measurable storm event(s) during the calendar year, the permittee shall document the inability to perform a routine inspection when a discharge is occurring. In any case, the permittee shall complete routine quarterly inspections.

VII.A.1. Routine Site Inspection Documentation (Part 4.1.1)

Part 4.1.1 elaborates on the specific information to be documented for each routine inspection. Part 4.1.1 specifies that any corrective action required as a result of a routine site inspection must be performed consistent with Part 3 of the permit. See Section VI of this Fact Sheet for additional discussion of corrective action in response to inspection findings.

VII.A.2. Exceptions to Routine Site Inspections for Inactive and Unstaffed Sites (Part 4.1.2)

Each calendar year, a permit holder of an inactive and unstaffed mining site shall conduct one routine site inspection in accordance with the requirements of Part 4.1. The permittee shall

also inspect the site whenever there is a reasonable expectation that severe weather or other events may have damaged control measures or increased discharges. The permittee is waived from general analytical monitoring, quarterly routine site inspections and visual assessments inspection requirements in accordance with Part 1.6.

Where inspections are not practical at inactive and unstaffed mine sites, the permittee shall submit an Inactive and Unstaffed Site Certification Form within one year of obtaining permit coverage. The form shall include an explanation why inspections are impracticable at the mine site. Inactive and unstaffed mine facilities where it has been determined that annual inspections are impracticable, shall be inspected once every three years (tri-annual). Tri-annual inspections must be conducted in accordance with Section 4.1, and signed and certified by a Registered Professional Engineer in the state of Arizona (40 CFR 122.44. B.4.iv), certifying that the site is in compliance with the permit, or alternative requirements using the Inactive and Unstaffed Site Certification Form. The permittee shall also inspect the site whenever there is a reasonable expectation that severe weather or other events may have damaged control measures or increased discharges.

Permit holders of inactive and unstaffed mine sites are not exempt from having to minimize the discharge of pollutants during these inactive and unstaffed periods.

VII.B. Visual Assessment of Stormwater Discharges (Part 4.2)

Visual assessments provide a useful and inexpensive means for permittees to evaluate the effectiveness of their control measures. Four visual assessments must be conducted annually, twice per wet season. While four visual inspections must be conducted annually, they are to be concentrated during rainfall events in the winter and summer wet seasons. The visual examinations must still be conducted when the site is discharging. A visual assessment can be conducted concurrently with a routine site inspection required by Part 4.1.

Periodic visual inspections of a site are necessary to ensure that the SWPPP addresses any significant changes to the site's operations or control measure implementation procedures. All industrial sectors covered by the permit are required to conduct these examinations.

The permit requires that grab samples of stormwater discharges be taken and examined visually for the presence of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution. No analytical tests are required to be performed on these samples. The grab samples must be taken within the first 30 minutes or a soon as practicable after the occurrence of an actual discharge from the site (including documentation of why sampling was not practicable within the first 30 minutes).

Areas Subject to Snow: In areas subject to snow, the permittee may complete one wet season visual assessment by collecting snowmelt discharge. Significant snowfall only occurs regularly in the high country in Arizona, which is the only place the Department would expect such sampling to be applicable. These snowfall events tend to be isolated in geography and occurrence (i.e., relatively infrequent), so for practical purposes, the permit does not require that these snowmelt samples be collected within the first 30 minutes of discharge as is the case for samples collected during rain events.

Permittees must document the results of their visual assessments in a report that includes the sample location, date and time, personnel collecting the sample and performing visual assessments, results of the observations, and probable sources of any observed stormwater contamination. The visual examination reports must be maintained onsite with the SWPPP.

When conducting a stormwater visual examination, the pollution prevention team, or individual team member, should attempt to relate the results of the examination to potential sources of stormwater contamination on the site. For example, if an oil sheen is observed, site personnel should conduct an inspection of the area of the site draining to the examined discharge to look for obvious sources of spilled oil, leaks, etc. If a source can be located, then this information would allow the site operator to immediately conduct a clean-up of the pollutant source, and/or to revise control measures to minimize the contaminant source.

Exceptions to Visual Assessments (Part 4.2.3)

Part 4.2.3, of the permit includes exceptions for visual assessment monitoring. The exceptions are conditions in which that assessment monitoring is not feasible. Where these types of conditions prevent a site from performing these assessments quarterly, permittees may modify their assessment schedule such that the four assessments are conducted over the course of the year during periods when site discharges actually occur and can be safely observed.

VIII. Stormwater Pollution Prevention Plan (SWPPP) (Part 5)

Part 5 of the permit describes the preparation and documentation requirements of the SWPPP. To be covered under the permit, the discharger must prepare a SWPPP for the site before submitting a Notice of Intent (NOI). The SWPPP, together with the additional documentation requirements (see Part 5.6 of the permit), is intended to document the selection, design, installation, and implementation (including inspection, maintenance, monitoring, and corrective action) of control measures being used to comply with the requirements set forth in Part 2.1. The SWPPP documents information on how the permittee intends to comply with the requirements (including inspection, maintenance, evaluation and monitoring, requirements) contained elsewhere in the permit.

The SWPPP itself does not contain effluent limitations; rather it constitutes a tool to assist both the permittee and inspectors in ensuring and documenting that the requirements of Part 2.1 are met. This documentation must be kept up-to-date. Where control measures are modified or replaced, for instance in response to a Part 3.1 triggering condition, such changes must be documented in the SWPPP. See Part 5.4.

To be covered under the 2019 MSGP, operators must complete a SWPPP prior to submitting an NOI for permit coverage (previous permittees must update their existing SWPPP to reflect the 2019 MSGP). In doing so helps to ensure that permittees acknowledge a new permit has been issued and that the site has (1) taken steps to identify all sources of pollutant discharges in stormwater; and (2) implemented appropriate measures to control these discharges in advance of authorization to discharge under the new permit. Part 5.1 of the permit contains most of the required elements to be documented in the SWPPP; however, sector-specific requirements are also included in Part 8 of the permit.

VIII.A. Contents of the Site's SWPPP (Part 5.1)

Part 5.1 of the permit contains the required elements to be documented in the SWPPP; however, sector-specific SWPPP documentation requirements are also included in Part 8 of the permit.

ADEQ's intent in the 2019 MSGP for reducing textual descriptions for each specific SWPPP requirement from the 2010 MSGP, was to simplify this section and reduce duplicative

information already provided in Part 2.2.1.1, under Control Measures. It should be noted that the SWPPP is a documentation requirement of the permit that incorporates the specific control measures that will be used at the site to meet permit limits.

Numerous SWPPP resources, guidelines and templates currently exist and readily available on the Departments or other stormwater websites to assist permittees with developing a SWPPP that complies with this permit.

Permittees may choose to reference other documents in the SWPPP rather than recreating the same text in the SWPPP; however, when referencing other documents, the permittees are responsible for ensuring their SWPPP and the other documents together contain all the necessary elements for a complete SWPPP. In addition, permittees must ensure that a copy of the referenced document is located with the SWPPP. For example, program documents such as Spill Prevention, Control and Countermeasure (SPCC) Plans that fully meet the documentation requirements for a SWPPP (e.g., site inspections that incorporate and document stormwater inspection requirements) will fulfill the relevant provision of the permit. ADEQ strongly recommends that, regardless of whether all required SWPPP components are combined into one document, an index be kept which identifies where individual SWPPP components are addressed.

VIII.A.1. Stormwater Pollution Prevention Team

Developing a SWPPP requires that a qualified individual or team of individuals be identified as responsible for developing and revising the site's SWPPP. Additionally, this team is responsible for implementing and maintaining the control measures to meet the permit requirements, and taking corrective action where necessary. Inclusion of the team in the plan provides notice to site staff and management (i.e., those responsible for signing and certifying the plan) of the responsibilities of certain key staff for following through on compliance with the permit's conditions and limits.

Team members should be chosen for their expertise in the relevant departments at the site to ensure that all aspects of site operations are considered in developing the plan. The SWPPP must clearly describe the responsibilities of each team member to ensure that each aspect of the plan is addressed. Most permittees will have more than one individual on the team, except for small facilities. The permit requires that team members have ready access to any applicable portions of the SWPPP and the permit.

VIII.A.2. Site Description

The SWPPP must describe activities, materials, and physical features of the site that may contribute significant amounts of pollutants to stormwater runoff or, during periods of dry weather, result in pollutant discharges through the municipal separate storm sewers or stormwater drainage systems that drain the site. The SWPPP must also contain both a general location map of the site that shows the location of the site in relationship to receiving waters and other geographical features, and a more detailed site map that contains information on site characteristics that affect stormwater runoff quality and quantity. For areas of the site that generate stormwater discharges with a reasonable potential to contain significant amounts of pollutants, the map must indicate the probable direction of stormwater flow and the pollutants likely to be in the discharge. Flows with a significant potential to cause soil erosion also must be identified.

VIII.A.3. Summary of Potential Pollutant Sources

The permit requires permittees to identify potential sources of pollutants from industrial activities that could result in contaminated stormwater discharges, unauthorized stormwater discharges, and potential sources of allowable non-stormwater discharges. Identification of sources of pollutants in stormwater is critical for selecting source control practices at the site necessary for meeting permit limits.

Describing the potential pollutant sources is only applicable to those parts of the site for which the permittee is covered under the permit. For example, a site that discharges stormwater to an area of the site covered by a different AZPDES permit, is not required to identify the specific activities occurring in that area. ADEQ does expect permittees to clearly identify those areas of the site and describe why they need not be covered under the permit.

Note that potential pollution sources include a site's roof(s) and other surfaces that could accumulate pollutants originating from an industrial process and deposited through the air. Roofs, walls, etc., exposed to emissions from industrial areas can build up such pollutants over dry periods, which can be mobilized during a rain event or in snowmelt, so these areas need to be identified and included in SWPPP development. Likewise, industrial structures containing materials that could become pollutants discharged in stormwater (e.g., copper cladding on buildings or zinc from galvanized fences) must also be identified as potential pollutant sources.

Spills and Leaks. The SWPPP must include a list of any significant spills and leaks of pollutants that occurred in the 3 years prior to the date the SWPPP was developed or amended. New owners of existing facilities should, to the extent practicable, identify any significant spills or leaks attributable to past owners. Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under section 311 of the CWA (see 40 CFR 110.10 and 40 CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4).

Significant spills may also include releases of materials that are not classified as oil or hazardous substances. The list of significant spills and leaks should include a description of the causes of each spill or leak, the actions taken to respond to each release, and the actions taken to prevent similar spills or leaks in the future. This effort will aid operators in developing spill prevention and response procedures and any additional procedures necessary to fulfill the requirements set forth in Part 2.2.1.2.4 of the permit.

As required in Part 5.6 of the permit, any spills or leaks that occur while covered under the permit must be documented. Documenting spills does not relieve permittees of any reporting requirements established in 40 CFR 110, 40 CFR 117, and 40 CFR 302, or any other statutory requirements relating to spills or other releases of oils or hazardous substances.

Unauthorized Non-Stormwater Discharges. The SWPPP must document the occurrence of unauthorized non-stormwater discharges. The documentation must include the date of any evaluation, and describe any test or evaluation conducted to detect such discharges, the list of the outfalls or drainage points that were directly observed during evaluation, the actions taken such as control measures used to eliminate unauthorized non-stormwater discharges. The permittee must eliminate unauthorized non-stormwater discharges or document that a separate AZPDES permit was obtained.

Salt Storage. The SWPPP must identify any storage piles containing salt, including piles that only contain salt as a portion of the mixture in the pile, used for deicing or other commercial or industrial purposes.

Sampling Data. A summary of all existing data on the quality or quantity of stormwater discharges collected from the site during the previous permit term must be described in the SWPPP. The summary shall include a textual evaluation of sampling results and include data where necessary to summarize stormwater sampling data. New dischargers must provide a summary of any available stormwater discharge sampling data they may have, including the methods used to collect the data and the sample collection location.

VIII.A.4. Description of Control Measures

A permittee must describe in its SWPPP the control measures it has implemented at its site to achieve each of the requirements in Part 2.1, and to address any stormwater run-on that commingles with discharges covered under the permit. The description of the control measures implemented to meet the requirements in Part 2.1 must include a brief explanation of the measures implemented at the site, including how the Part 2.2.1 selection and design considerations were followed.

VIII.A.5. Schedules and Procedures – Control Measures

The permit identifies specific information that must be documented in the SWPPP. ADEQ emphasizes that control measures implemented to meet the Part 2 limits must be documented in the SWPPP.

In addition to the description of the on-the-ground control measures implemented to meet the requirements in Part 2.1, the permit requires certain schedules and procedures to be documented in the SWPPP.

VIII.A.6. Schedules and Procedures – Inspections and Visual Monitoring

The permit requires permittees to plan and document (in the SWPPP) inspection and monitoring activities in advance of when they are required to be conducted. These documentation provisions will help ensure that appropriate monitoring and inspection procedures consistent with permit requirements are implemented and improve site compliance with the requirements.

For inspection activities, permittees must document procedures for performing the three types of inspections specified in the permit, namely, routine site inspections (Part 4.1) and visual assessments (Part 4.2). For each of these types of inspections, the SWPPP must include information such as person(s) or position(s) performing inspections, the inspection schedule, and specific items to be covered by the inspection. Permittees invoking the exception for inactive and unstaffed sites for quarterly inspections or visual assessments must provide information in the SWPPP to support such a claim.

When choosing to use the substantially identical outfall exception for visual assessments or general analytical monitoring (Part 6.2.1) monitoring, the operator is required to describe in the SWPPP the locations of each of these outfalls, the general industrial activities conducted in the drainage area of each outfall, the control measures being implemented for each outfall, the exposed materials that are likely to be a significant contributor of pollutants to the stormwater

discharge, an estimate of the runoff coefficient of the drainage area, and why the outfalls are expected to discharge substantially identical effluents.

VIII.A.7.Monitoring and Sampling Procedures

For monitoring activities, the permittee must document procures and requirements in the SWPPP for information such as locations where samples are to be collected, person(s) or position(s) responsible for collecting those samples, the frequency of sampling and the parameters to be sampled, sampling protocol, permit limits for sampling, and procedures that will be followed to gather storm event data. Any permittee subject to sampling should prepare and keep a copy of a Sampling and Analysis Plan (SAP) with their SWPPP. The SAP can be within the SWPPP content or can be a separate Appendices.

The SWPPP shall contain the justifications for any other exemptions or exceptions to analytical monitoring.

VIII.B. Signature Requirements (Part 5.2)

The permit requires the permittee to sign and date the SWPPP consistent with procedures detailed in Appendix B, Subsection 11 (standard permit condition for signatory requirements). The requirement is consistent with standard AZPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the permittee understands its responsibility to create and maintain a complete and accurate SWPPP. The permittee may appoint an authorized representative consistent with the regulations. Therefore, if a site feels it is more appropriate for a member of the stormwater pollution prevention plan team to sign the documentation, that option is available under the permit.

VIII.C. Required SWPPP Modifications (Part 5.3)

The permit requires that the SWPPP be updated whenever any of the triggering conditions for corrective action in Part 3.1 occur such that changes to the permittee's control measures are necessary to meet the requirements in the permit. . This ensures that the SWPPP document is kept up to date.

In addition, the permittee shall modify the SWPPP to reflect new or modified control measures (see Parts 2.2 and 4.0), including measures implemented at active mining operations as mining activities expand into previously undisturbed areas (see Part 8.G.5.2).

VIII.D. SWPPP Availability (Part 5.4)

The permit requires that a copy of the SWPPP be kept at the site and be immediately available to representatives of ADEQ, EPA, a State, or a local stormwater agency (e.g., MS4 operator) at the time of an on-site inspection or upon request. Part 5.4 also indicates that ADEQ may otherwise request the permittee to submit copies of SWPPP documents with 14 calendar days.

The SWPPP at inactive and unstaffed sites does not need to be kept on-site. However, the SWPPP must still be kept up to date and on-site when appropriate routine and comprehensive site inspections are conducted. Furthermore, the SWPPP must be made available within 48 hours, if requested, when a regulatory inspection is performed by ADEQ, EPA or other Federal or local authority.

VIII.E. SWPPP Submittal (Part 5.5)

Upon written notification from ADEQ, or as part of the electronic permitting process, the permittee shall submit a complete an up-to-date copy of the SWPPP to the Department in response to the following criteria:

- The site is located within 2.5 miles of a special water;
- ADEQ has determined stormwater discharges are (or have the potential to) causing or contributing to the exceedance of a surface water quality standard in the receiving water;
- As the result of an inspection conducted by ADEQ or U.S. EPA;
- To demonstrate compliance with permit conditions;
- A complaint about the site or discharge activity was submitted to ADEQ;
- The SWPPP has been requested as part of a public records request.

Additionally, the permittee may voluntarily submit a copy of the SWPPP at any time for ADEQ's review.

All SWPPP's submitted to ADEQ shall be done so electronically using the online myDEQ portal. The corresponding review fee (A.A.C. Title 18, Chapter 14, Article 1) must also be submitted electronically using myDEQ at the time the SWPPP is submitted.

VIII.F. Additional Documentation Requirements (Part 5.6)

Part 5.6 includes a list of documents, findings, activities, and information that must be kept with the permittee's SWPPP. Part 5.6 in the permit consolidates all additional documentation requirements into one section and is intended to clarify those requirements for permittees. See permit language for details.

The SWPPP itself should describe the site, the control measures, and the site activities to be performed, but activities undertaken to comply with the provisions of the permit are more appropriately compiled separately. Hence, the language, "kept with the SWPPP" used in various places throughout the permit is intentional. "Kept with the SWPPP" is intended to clarify that these records are separate from the SWPPP documentation requirements. Instead, these records, which should be kept with the actual SWPPP document, provide documentation of the permittee's compliance with the permit. In general, this documentation requires the signature of the person performing the activity (e.g., inspection, sampling), not an authorized site representative as specified in Appendix B, Subsection 11.

IX. Analytical Monitoring Program (Part 6)

The analytical monitoring incorporated into ADEQ's 2019 industrial stormwater permit is intended to close gaps in previous permit terms that failed to provide adequate response for discharges of pollutants, as well as provide a clear path for response and mitigation.

Due to Arizona's arid climate, ADEQ has reduced the monitoring frequency to one time each wet season, for a total of two samples a year for the following analytical monitoring requirements:

- General Analytical monitoring for select industrial dischargers,
- Effluent Limitation Guideline (ELG) monitoring, and
- Special waters monitoring (impaired waters, not-attaining waters, and Outstanding Arizona Waters)

Also due to the infrequency and variability of stormwater discharges in Arizona's arid climate, ADEQ does not allow for averaging of four monitoring events. Many facilities in Arizona report that it is not uncommon to go one or more years before there is storm event that results in a discharge. Retaining analytical data over one or more years to average sample results does not provide a timely response to pollutants being discharged from the site. ADEQ's 2019 industrial stormwater permit aims to promote timely response to the discharge of pollutants that may impact human health or the environment.

A key component to timely response is to assess existing control measures for exceedances of alert levels. ADEQ instituted Arizona Surface Water Quality Standards in the 2019 industrial stormwater permit. The Arizona SWQS replace EPA's surface water quality criteria utilized as "benchmarks," also used in ADEQ previous permit term. ADEQ replaced the EPA water quality criteria to more accurately represent and protect Arizona's receiving waters.

Similar to other environmental programs (solid waste, air quality, safe drinking water, etc.) ADEQ implemented additional monitoring and reporting when a numeric limit is exceeded. ADEQ's 2019 industrial stormwater permit requires "accelerated monitoring" if a numeric limit is exceeded (ELG, waste load allocation, etc.). The accelerated monitoring requires the site to conduct analytical monitoring each time there is a stormwater discharge from the site. The accelerated monitoring provision is limited to the pollutant(s) and outfall(s) for which the exceedance was reported. Accelerated monitoring continues until there are two consecutive sampling events that demonstrate pollutant concentration(s) are below the corresponding numeric limit(s).

IX.A. Analytical Monitoring Types (6.1.1)

The 2019 MSGP more clearly describes the types of monitoring that may be required by this permit. Depending on the industrial activity, discharge activity, site location, type of receiving water, or potential to cause or contribute to an exceedance of a surface water quality standard, any or all of the monitoring requirements may be applicable:

- General analytical monitoring;
- Effluent Limitation Guideline (ELG);
- Impaired, includes Not-attaining waters;

- Outstanding Arizona Water; and/ or
- Other monitoring prescribed by ADEQ.

If analytical monitoring of discharges from the site is required, a summary of the monitoring requirements consistent with this permit (frequency, analytical parameters, etc.) will be included with the authorization certificate issued through myDEQ.

IX.A.1. When to collect a sample (Part 6.1.2).

Many facilities in Arizona are subject to limited rainfall conditions throughout the year (i.e., the winter wet season or the summer wet season). The climate throughout the state of Arizona is characterized as arid or semi-arid with irregular stormwater runoff. In addition, certain areas of the state experience freezing conditions that may prevent runoff from occurring for extended periods. Therefore, monitoring periods have been adapted accordingly and the section on climates with irregular stormwater runoff has been combined into the section on monitoring periods. ADEQ has established a winter and summer "wet season" for monitoring in the permit. ADEQ has replaced EPA's quarterly benchmark monitoring schedule with one that adapts to Arizona's summer and winter wet seasons.

The monitoring requirement begins immediately after authorization to discharge received by permittee. ADEQ recognizes the variability of rainfall in the state and, to ensure that all storm events fall into one of the two rainy seasons for the purposes of MSGP monitoring, the Department has defined monitoring seasons in the permit as follows:

Summer wet season:	June 1 – October 31
Winter wet season:	November 1 – May 31

This definition applies statewide. The frequency for MSGP stormwater sampling in the permit is at least once each wet season (summer and winter) from each monitoring location, for the duration of permit coverage. The sampling required once per wet season considers that precipitation in Arizona tends to be concentrated in 2 district seasons, during the winter months and during monsoon season.

The term 'wet season' includes areas of the state where freezing conditions exist that prevent runoff from occurring for extended periods. In areas where freezing conditions exist, the required monitoring and sample collection may be distributed during seasons when precipitation runoff, either as melting snow or rain mixed with melting snow, occurs.

Precipitation or runoff patterns in Arizona's arid climates is unpredictable and sporadic, and often times it can be months, may even a year between a measurable storm events that causes a discharge enough to sample. The 2019 MSGP requires sampling to be conducted for the duration of the permit. This change to the monitoring duration was to gather data throughout the permit term and to evaluate a sites pollutant levels over time. This will yield a more accurate characterization of pollutant concentrations in the site's discharge for the variable stormwater flow/ volumes in Arizona's climate and monitor pollutant levels after long dry periods (i.e. months between rain events).

Measurable Storm Event. The permit defines a measurable storm event as an event that results in a discharge from the permitted site. Samples must be collected from a storm event that results from the permitted site, from a storm event that occurs at least 72 hours (3 days) after a previous measurable storm event. The 72-hour (3-day) requirement may be waived by the

permittee where the permittee documents that less than a 72-hour (3-day) interval is representative for local storm events during the season when sampling is being conducted.

Many facilities are located in colder regions of the state and may have extended periods of freezing temperatures and snow events that do not meet the definition of a measurable storm event. The 72-hour (3-day) requirement does not apply to snowmelt as the actual discharge is not clearly tied to a specific snow event (i.e., may be the accumulation from multiple events). The permittee must record the date the snowmelt sample was collected.

IX.A.2. How to Collect a Sample (Part 6.1.3).

The permit specifies that a minimum of one discrete sample must be taken from the measurable storm event being monitored. This allows facilities to make accurate comparisons of monitoring results to the corresponding routine analytical, effluent limitation or water quality standard to determine whether additional action may be needed to reduce concentrations of pollutants detected in stormwater discharges. The sample may be collected manually by a qualified person by using an automatic or passive sampler.

Whenever possible, a grab sample is required during the first 30 minutes, because the highest pollutant concentrations generally occur during these first flush events. The first 30 minutes of the discharge is also the time when receiving stream flows are the lowest during wet weather events and thereby presents the greatest potential pollutant impacts to aquatic species. If more than one grab sample is collected, only those samples collected during the first 30 minutes of discharge are to be used for performing any necessary analyses. If the collection of a grab sample during the first 30 minutes is impractical, a grab sample can be taken as soon as practicable after the first 30 minutes, but the permittee must document and keep with the SWPPP an explanation of why a grab sample during the first 30 minutes was impractical.

Grab samples of snowmelt discharge that have been exposed to industrial activities, materials storage, or materials handling areas are to be collected from each outfall for characterization, but they do not have to be collected within 30 minutes of discharge.

IX.A.3. Where to Sample (Part 6.1.4)

The permit requires samples shall be collected from each representative locations where stormwater discharges from the permitted site. This may be a discrete pipe, ditch, channel, overland (sheet) flow, or other location(s) so long as the stormwater is representative of the discharge of industrial activities conducted at the site.

In the event there are two or more discharge locations that are composed of the same, or substantially similar, stormwater discharge characteristics (substantially identical outfalls), the number of sample locations can be reduced. The substantially identical outfall provision allows permittees to reduce the number of outfalls that must be sampled and analyzed while still providing monitoring data that are indicative of discharges from each outfall.

Operators do not need advance ADEQ approval for this determination, however, the Department may subsequently determine that outfalls are not substantially identical and require sampling of additional outfalls. The permit clarifies that the allowance for monitoring only one of the substantially identical outfalls is applicable to routine analytical and impaired waters monitoring. The substantially identical outfall provision cannot be used for outfalls with the numeric effluent limitations or that discharge to an Outstanding Arizona Water.

If discharges authorized by this permit commingle with discharges not authorized under this permit, any required sampling of the authorized discharges must be performed at a point before they mix with other streams, to the extent practicable. The intent of this provision is to ensure that monitoring results are representative of discharges covered under the permit and not indicative of other discharges from the site. In certain instances, sampling only authorized streams may be inappropriate or infeasible, such as when authorized discharges are commingled with other streams prior to on-site treatment.

The permittee shall monitor allowable non-stormwater discharges only when they are commingled with stormwater discharges associated with industrial activity (unless modified by ADEQ).

IX.A.4. Sampling and Analysis Plan (Part 6.1.5)

For the required monitoring, the SWPPP must contain a Sampling and Analysis (SAP) either as a separate section or as an appendix to the SWPPP. The contents of the SAP must include:

1. Sample collection, preservation, tracking, and handling information;
2. Calibration and maintenance of monitoring equipment;
3. A description of analytical methods and laboratories; and
4. Proper recordkeeping.

IX.B. Required Monitoring (Part 6.2)

Five types of analytical monitoring are required, one or more of which may apply to the site's discharge:

- General analytical monitoring (see Part 6.2.1);
- Effluent limitations monitoring (see Part 6.2.2);
- Impaired and Not-Attaining waters monitoring (see Part 6.2.3);
- Outstanding Arizona Water Monitoring (see Part 6.2.4); and
- Additional monitoring as required by ADEQ (see Part 6.2.4).

The permit does provide that if any of these monitoring requirements overlap, permittees are authorized to use a single sample to comply with those overlapping requirements. This Fact Sheet describes the monitoring requirements, the rationale for changes from the MSGP 2010.. A separate guidance document describes applicability of general analytical monitoring at mining sites.

IX.B.1. General Analytical Monitoring (Part 6.2.1)

Mining permittees are required to sample during seasons when precipitation typically occurs in Arizona or when snowmelt results in a measurable discharge from the site (see Section IX.A.4 of the Fact Sheet for a discussion of the wet seasons). Hence, sampling is required once per wet season throughout the life of the permit.

General analytical monitoring is required in the AZPDES 2019 MSGP for mining sectors G & J, but the levels to which monitoring results can be compared are not set at this time. The rationale for this is the fact that mine sites typically disturb vast areas of naturally mineralized

land all at the same time; hence, it is difficult to develop meaningful numbers that are useful in measuring control measure effectiveness.

Similar to the last permit term, the 2019 MSGP does not include a comparison of general analytical monitoring data to numeric limits. This is in large part due to the legal challenge regarding the EPS's MSGP (2015). Upon re-issuance of the 2015 EPA's industrial stormwater permit, EPA was challenged on the permit, primarily as it related to benchmark monitoring.

EPA entered into a settlement agreement in 2016, and agreed to fund a study to be conducted by the National Academy of Science (NAS). The focus of the study is on three main issues:

1. Review existing information and evaluate improvements to benchmark monitoring to more accurately assess performance of stormwater controls measures;
2. Evaluate the feasibility of numeric retention standards and make recommendations establishing technology based and water quality based numeric effluent limitations, and
3. Provide recommendations of highest priority industrial facilities or subsectors for additional discharge characterization and / or monitoring.

ADEQ has elected to hold off on incorporating numeric limits for general analytical monitoring, pending the outcome of the NAS study and resulting recommendations. Once finalized and issued, ADEQ will evaluate the recommendations and consider them as they relate to industry in Arizona and the impacts to the environment.

IX.B.1.a. General Analytical Monitoring Schedule (Part 6.2.1.2)

Mining facilities are required to conduct general analytical monitoring twice per year (once per wet season) for the duration of the permit. The permittee may use this data along with ADEQ's monitoring guidance document to evaluate effectiveness of controls.

IX.B.1.b. Exception for Inactive and Unstaffed Sites (Part 6.2.1.4)

Mining facilities that are both inactive and unstaffed have an exception from general analytical monitoring. To qualify for this exception, permittees must maintain a signed certification with their additional documentation (Part 5.6 of the permit) that indicates that the site is inactive and unstaffed. However, these sites must still be identified in the operator's SWPPP, and must still adopt control measures to minimize pollutant discharges. See Section IV.E for additional discussion. Part 6.4.4 requires permittees to notify the Department when they become qualified for the exception and when the site no longer qualifies.

It is impracticable for mining facilities that are inactive and unstaffed to make staff and resources available for stormwater monitoring, considering that the outfall locations are often remote and the stormwater events occur at times that are unpredictable.

IX.B.1.c. General Analytical Monitoring Exceptions for Discharges to Ephemeral Waters has been removed from 2019 MSGP

The AZPDES 2019 MSGP has removed the monitoring exemption for total suspended solids (TSS) or turbidity to ephemeral waters. The ephemeral exemption was removed in order

to provide continued assessment of control measures and provide environmental protection of all receiving waters.

IX.B.1.d Changes to Sample parameters for Sector G

For Subsector G1 (Table 8.G-8.2) TSS and COD was removed and pH and copper was added to the parameter list under general analytical monitoring. Copper was added to evaluate the potential pollutant concentrations in stormwater from active coper mines. For discharges from waste rock and overburden piles in Subsector G2 (Table 8, G-8.2), the following parameters were removed: antimony, mercury, and silver. Those parameters were removed based on the review of recent DMR reports indicating those pollutants were rarely detected in stormwater discharges. Additional stormwater sampling data obtained from the Surface Water Protection Unit, further verified that that those parameters were detected at very low concentrations, if at all. Subsector G2 SIC code 1094 for Uranium-Vanadium-Radium Ores, COD was removed and replaced with arsenic.

New sampling parameters for general analytical monitoring were added to specific sectors of mining SIC codes in the Permit-Table 8.G-8.3. The parameters were chosen to correlate with the type of mining being conducted and the likelihood of those parameters being present in stormwater discharges. For example, for the SIC Code 1031 for lead and zinc ores, lead and zinc have been added to the general analytical monitoring parameters. The parameters added for specific SIC codes are summarized below:

Additional parameters added to SIC Codes in Sector G	
Subsector (Discharges may be subject to requirements for more than one sector/subsector)	**Parameter**
Lead and Zinc Ores (SIC Code 1031)	pH
	Lead, total & dissolved [1]
	Zinc, total & dissolved [1]
Gold and Silver Ores (SIC 1041 and 1044)	pH
	Cyanide (free)
	Silver total & dissolved [1]
Ferroalloy Ores, Except Vanadium (SIC Code 1061)	pH
	Manganese
Uranium-Vanadium-Radium Ore Mining (SIC Code 1094)	Radium, total and dissolved
	Uranium

1. These metals are hardness-dependent and require sampling for water hardness.

IX.B.2. Effluent Limitations Monitoring (Part6.2.2.)

Numeric effluent limitations have been included in previous versions of the MSGP, based on national effluent limitation guidelines for certain industry-specific discharges (see Part 6.2.2). Monitoring for these parameters must be conducted at least twice per year for the duration of

permit coverage. Part 6.2.2.2 clarifies that permittees subject to effluent limitation guidelines are required to monitor each outfall discharging runoff, and that the flexibility afforded for general analytical monitoring for substantially identical outfalls does not apply to effluent limitation guidelines monitoring.

IX.B.3. Monitoring Discharges to Impaired Waters (Part 6.2.3)

Part 6.2.3 of the permit provides provisions for discharges to water quality impaired receiving waters. As noted earlier, ADEQ's permit requires the permittee to develop and implement a monitoring program for authorized discharges to impaired waters.

Permittees that discharge to impaired waters shall sample twice per year (once per wet season) for the duration of the permit. This is to evaluate pollutant concentrations over time and across varied stormwater events (or lack thereof).

IX.B.3.a. Determine Whether the Receiving Waterbody Is Impaired

When a new NOI is submitted, myDEQ will determine whether the site's discharge is within 2.5 miles of an impaired water and or not-attaining water, and, if so, what are the pollutants identified as causing the impairment. Analytical monitoring may be required under this permit to ensure protection of the receiving water and attainment of designated use(s). If analytical monitoring is required, the permittee shall submit a Stormwater Pollution Prevention Plan (SWPPP) to ADEQ for review. As part of the on-line NOI process, myDEQ will require the SWPPP be submitted and the corresponding review fee be included. If monitoring is required, the type, frequency, and analytical parameters will be included in the final permit authorization certificate. That information will then be used to automatically pre-populate the Discharge Monitoring Report (DMR) Form.

MyDEQ has the capability to determine if a certain sector will likely contain the pollutant that is causing the impairment. In this case, those parameters would be required to be monitored and SWPPP submittal required. On the contrary, if the sector would mostly likely not contain the pollutant of concern causing the impairment, the permittee would not have to sample for that impaired parameter(s) or be required to submit a SWPPP. For those permittees that had coverage under the 2010 MSGP and obtained new permit coverage within the required timeframes (Table 1-2), even though the site may be within 2.5 mile radius of an impaired water, a SWPPP would not be required to be re-submitted to the Department.

When developing TMDLs, ADEQ evaluates contributions from upstream segments and contributing waterbodies. As such, in some instances, upstream sources may be identified as a contributor to an impairment. Where ADEQ has reason to believe that a permitted site has the potential to cause or contribute to an impairment in a downstream water, the permittee may be required to perform additional monitoring or adopt additional control measures to address the potential contribution to the impairment.

IX.B.3.b. Determine the Pollutant(s) of Concern

The myDEQ system will identify the pollutant(s) of concern in the final authorization certificate. Permittees are required to monitor for all of these pollutants, with a few noteworthy exceptions as discussed below. For impaired waters without a TMDL, monitoring is required only for those parameters for which a standard analytical test method in 40 CFR Part 136 exists. If a TMDL has been approved that applies to the discharge, ADEQ will determine whether there are any other monitoring specifications that are contained in the TMDL and that apply to the site,

and notify the permittee of any additional requirements. If the pollutant for which the waterbody is impaired is suspended solids, turbidity, or sediment/sedimentation, Total Suspended Solids (TSS) must be monitored. If the pollutant of concern is an indicator or surrogate pollutant, than the pollutant indicator (e.g., dissolved oxygen) must be monitored. No monitoring is required when a waterbody's biological communities are impaired but no pollutant is specified as causing the impairment, or when a waterbody's impairment is related to hydrologic modification, impaired hydrology, or temperature.

IX.B.3.c. Impaired Waters Monitoring Schedule

The impaired water monitoring schedule is one that adapts to Arizona's climate (summer and winter wet seasons – see Section IX.A.4 of this Fact Sheet). The impaired waters monitoring requirement begins immediately after authorization to discharge received by permittee and is required once per wet season for the duration of the permit term. Facilities must monitor for impaired parameters and any other parameters specified for the industrial sector(s), both primary industrial activity and any co-located industrial activities, applicable to their discharge.

The monitoring requirements in Part 6.2.3 is intended to provide ADEQ with further information on the impacts permitted industrial facilities have on impaired waters, and to help ensure that the facilities are not causing or contributing to the impairment. For discharges to impaired waters that do not yet have TMDLs developed, these monitoring data are important when developing the TMDL in the future to identify potential sources of the pollutants causing the impairment(s) as well as to identify sources that do not contribute the pollutant and thus should not be included in the TMDL. They are also important for assessing whether additional water-quality based requirements, either numeric or qualitative, are necessary on a site specific basis to ensure that the site does not cause or contribute to a water quality standards violation. For discharges to waters for which an approved or established TMDL is applicable to the permittee, monitoring data provides a means of ensuring that the permittee is consistent with TMDL, as well as a useful tool to assess progress in meeting the goals of the TMDL.

IX.B.4. Outstanding Arizona Water Monitoring (Part 6.2.4)

As noted earlier, when a new NOI is submitted, myDEQ will determine whether the site's discharge is within 2.5 miles of an outstanding Arizona water. Based on this determination, the parameters, frequency and type of monitoring will be included on the permit authorization certificate. The parameters to be monitored will be determined by ADEQ and will be dependent on the site's industrial activities and location relative to the OAW.

Permittees that discharge to OAWs are required to submit a copy of the SWPPP at the beginning of the application process. Upon review of the SWPPP, ADEQ may determine that additional discharge monitoring and or control measures are required.

IX.B.5. Additional Monitoring Required by ADEQ (Part 6.2.5)

As with the MSGP 2010, the MSGP 2019 requires facilities to perform additional discharge monitoring in those instances when ADEQ determines it is necessary to ensure the protection of receiving water quality. Such monitoring serves as a tool for the Department and the permittee to evaluate whether additional control measures are needed to protect receiving water quality.

ADEQ will require additional monitoring when there is evidence that a pollutant is being discharged that is not being monitored for and that the pollutant is causing or contributing to exceedances of a water quality standard. In this case, the Department will provide in writing the appropriate site with a brief description of why additional monitoring is needed, locations and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

IX.C. Accelerated Monitoring (Part 6.3)

The 2019 MSGP contains follow-up monitoring provisions for pollutants that are causing or contributing to a surface water quality standard in the receiving water or that exceeds surface water quality standard in an impaired water or OAW, and / or exceeds an ELG or WLA. This is a new requirement, designed to ensure that existing control measures are modified as necessary and, as soon as practicable to bring the site back into compliance with the effluent limitations and water quality requirements contained in the permit.

The 2019 MSGP monitoring requirements of once per wet season are deemed appropriate for stormwater discharges in Arizona, provided the site remains in compliance with the permit requirements. However, more frequent monitoring is appropriate in the event a water quality standard is exceeded in the receiving water, a water quality standard is exceeded for an impaired water, an ELG or WLA is exceeded.

The site must implement analytical monitoring for each subsequent discharge until two (2) consecutive sampling events are below the permit requirement for the corresponding pollutants.

IX.D.1 Exemptions or Exceptions to Analytical Monitoring

Absence of Discharge When a storm event results in no-discharge from the site or outfall(s) during a wet season, the permittee is excused from analytical monitoring for the site or outfall(s) for that season provided. This provision applies to all monitoring types in the permit. Absence of discharge conditions do not exempt the permittee from the requirement to file a discharge monitoring report (DMR) form in accordance with the corresponding reporting period. The permittee must document the absence of discharge in the monitoring record and retains that record within the SWPPP.

Adverse Conditions When adverse weather conditions make sampling dangerous, the permittee may postpone storm event monitoring until the next runoff event. This provision applies to serious weather conditions such as: lightning, flash flooding, and high winds or other unsafe conditions that result from violent weather, such as downed power lines in the immediate area where sampling would take place. This provision should not be used as an excuse for not conducting sampling under conditions associated with more typical storm events. Adverse weather conditions do not exempt the permittee from the requirement to file a discharge monitoring report (DMR) form in accordance with the corresponding reporting period. In many cases, sampling during a subsequent non-hazardous storm event may still be possible during the reporting period. Where this is not possible, operators are still required to report the inability to monitor indicating the basis for not sampling during the reporting period. This provision applies to all monitoring types in the permit. The permittee shall document the adverse conditions in the monitoring record and retains that record within the SWPPP.

Substantially Identical Outfalls The substantially identical outfall provision provides facilities that have multiple stormwater outfalls with a means to reduce the number of outfalls that must be sampled and analyzed while still providing monitoring data that are indicative of discharges from each outfall.

This provision applies to routine analytical and impaired water monitoring. It should be noted that ADEQ may determine that outfalls are not substantially identical and may require monitoring at the other outfalls. The substantially identical outfalls exemption to monitoring cannot be applied to outfalls with numeric effluent limit guidelines or outfalls that discharge to OAWs.

Sites that invoke the substantially identical outfall provision shall comply with the requirement to file a discharge monitoring report (DMR) form in accordance with the corresponding reporting period. The permittee must document the use the of substantially identical outfall provision exemption in the monitoring record and retains that record within the SWPPP.

Inactive and Unstaffed Sites The requirement for general analytical monitoring does not apply at a site that is inactive and unstaffed. The requirement for impaired waters monitoring at a site that is inactive and unstaffed is reduced to once per year, if the requirements of Part 1.6 are met. The inactive and unstaffed exemption to the monitoring provision cannot be applied to outfalls with numeric effluent limit guidelines or outfalls that discharge to OAWs.

If a permitted site will be inactive and unstaffed for more than six (6) consecutive months, the permittee can suspend analytical monitoring. To be eligible for the suspended monitoring condition, the permittee shall update their NOI in myDEQ indicating the time period for which the site will be inactive and unstaffed. The site status cannot retroactively be made inactive and unstaffed and, as such, all monitoring conditions apply until such time as ADEQ is notified of the inactive and unstaffed status (by modifying the in NOI in myDEQ). *Note: Within 30 days of becoming inactive and unstaffed or reverting back to an active and staffed site, the permittee must modify the NOI to update the status of the site.* If, after a six (6) month (or longer) period of inactive and unstaffed status, a site becomes active, the permittee must update the NOI in myDEQ indicating the site is active and resume any monitoring requirements specified in this permit.

Sites that are subject to accelerated (compliance) monitoring (Part 6.3) are not eligible to suspend their monitoring program due to inactive and unstaffed designation.

Invoking the inactive and unstaffed monitoring provision does not exempt the permittee from the requirement to file a discharge monitoring report (DMR) in accordance with the site's reporting schedule.

X. Reporting and Recordkeeping (Part 7)

This part describes the requirements for submitting monitoring data to ADEQ to document stormwater quality and identify potential water quality concerns. Monitoring data must be submitted to document stormwater quality and identify potential water quality concerns to ADEQ.

X.A. Reporting Monitoring Data to ADEQ (Part 7.1)

Permittees must comply with reporting requirements required by this permit. All applications (i.e., notices of intent, notices of termination, no exposure, DMR forms and other reports and forms must submitted to ADEQ electronically using myDEQ, if available. It is not required to submit any of the required information to EPA.

The purpose of submitting monitoring data is to document stormwater quality and identify potential water quality concerns to ADEQ. Monitoring data must be submitted electronically using the MSGP discharge monitoring report (DMR) form that is available through myDEQ. Electronic reporting was implemented to comply with the EPA's Electronic Reporting Rule signed on September 24, 2015.

X.A.1 Discharge Monitoring Report (DMR) Form (Part 7.1)

The purpose of submitting monitoring data is to document stormwater quality and identify potential water quality concerns to ADEQ. Monitoring data must be submitted using the MSGP discharge monitoring report (DMR) form that is electronically available using myDEQ.

All permittees must enter the sampling data on the downloadable DMR using myDEQ within 30 days of receiving the laboratory analytical data. Once entered onto the DMR, the permittee shall upload and submit the DMR. The myDEQ system will evaluate the sampling values and send any deficiency notifications based on the sampling results. The permittee shall comply with any subsequent monitoring or reporting based on the DMR deficiency report(s).

If the permittee has no sampling data during the reporting period because there was no discharge or another exemption to sampling applied, such as an inactive and unstaffed site, the eDMR shall be submitted no later than July 15 of each year of permit coverage (for reporting period June 1 to May 31).

X.B. Removal of Annual Report Requirement in 2019 MSGP

ADEQ has removed the annual report requirement in this permit.

X.C. Removal of Exceedance Report in 2019 MSGP

ADEQ has removed the 2010 MSGP requirement to submit Exceedance Reports and incorporated the reporting requirement into the Corrective Action Report in the 2019 MSGP. The 2019 MSGP requires any exceedance related to an effluent limitation guideline, or exceedance of a numeric surface water quality standard for an impaired or OAW or an exceedance of WLA, to notify the Department through the submittal of a Corrective Action Report.

The submittal of a Corrective Action Report is a new requirement and enables ADEQ to: 1) be notified when there is a permit violation; 2) assess the potential impact of the discharges on water quality; and 3) evaluate the adequacy of the permittee's response to the exceedance.

X.D. Additional Reporting (Part 7.2)

Permittees must comply with a number of different reporting requirements described throughout the permit. Reporting requirements to be submitted to the Department are

summarized in Part 7.2 and standard reporting requirements described in Appendix B, Subsection 12.

X.E. Recordkeeping (Part 7.3)

Part 7.5 describes recordkeeping requirements associated with activities covered under the permit. Permittees must maintain certain records to help them assess performance of control measures and document compliance with permit conditions. Specific records must be maintained and includes the original SWPPP and any modifications to it. The recordkeeping must include the additional documentation, all reports and certifications required by the permit, monitoring data, and records of all data used to complete the NOI to be covered by the permit. These records provide a traceable historical record of installation, maintenance, and monitoring of control measures and revisions to those control measures documented in the SWPPP.

Permittees must retain copies of these documents for a period of at least 3 years from the date that the permittee's coverage under the MSGP 2019 expires or is terminated. The recordkeeping requirements in Appendix B, Subsection B.12 include a more general statement of the AZPDES standard condition for records retention, but does not impose additional requirements on the permittee above what is required in Part 7.3.

X.F. Addresses for Reports (Part 7.4)

All required documentation, including reports, must be submitted to ADEQ electronically using myDEQ, if available. If a myDEQ reporting component is not available, documents must be mailed to the following address:

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

XI. Sector-Specific Requirements for Discharges Associated with the Mineral Industry (Part 8): Sector G – Metal Mining (Ore Mining and Dressing) and Sector J – Non-Metallic Mineral Mining and Dressing

Part 8 describes requirements specific to the mineral industry category iii of 40 CFR 122.26(b)(14). The sector descriptions are based on Standard Industrial Classification (SIC) Codes consistent with the definition of stormwater discharges associated with industrial activity at 40 CFR 122.26(b)(14)(iii). The MSGP 2019 is available to facilities with stormwater discharges associated with mining activity in Sectors G & J. For reasons already discussed in Section II.B, above, Sectors H and I have been reserved.

The changes to the monitoring requirements are described in detail in Section IX of this Fact Sheet. The general format and requirements in Part 8 of the permit are similar to the MSGP 2010. A few general changes are summarized below:

- Sampling parameters in Sector G were changed were to more adequately reflect the type of pollutants that may potentially discharged in stormwater.
- For all types of monitoring, the frequency is twice per year for the duration of the permit. The change to the frequency of sampling was to evaluate pollutant concentrations for various durations and volumes of storm events, including stormwater pollutant concentrations after periods of long dry spells (absence of stormwater discharges due to lack of precipitation).
- The ephemeral monitoring exemption was removed from the permit. Many of Arizona's washes are ephemeral and have surface water quality standards. Surface waters that originate as ephemeral washes have the likely hood of reaching down gradient users and impacting designated uses.
- Inactive and unstaffed sites are required to submit a DMR. The requirement to submit a DMR in the 2019 MSGP is to identify the sampling exemption invoked at the site. Otherwise, the reason for not collecting a sample is unknown.

XIII. Included Appendices

The two appendices to the permit include:

- Definitions Abbreviations and acronyms;
- Standard conditions;

X.III.A. Appendix A – Definitions, Abbreviations and Acronyms

Numerous changes were made to update, remove or insert definitions, abbreviations and acronyms to more accurately reflect the 2019 MSGP.

X.III.B. Appendix B

Appendix B – Standard Permit Conditions – the standard conditions in the MSGP 2019 are essentially consistent with the standard conditions in other AZPDES general permits. However, the MSGP 2019 contains the following additional provisions and revisions which are consistent with 40 CFR 122.41:

- Validity of electronic signatures (Appendix B, Part 9.g).
- Electronic Reporting Requirements (Appendix B, Part 12.c).
- Retention of Records (Appendix B, Part 22).