Statement of Basis

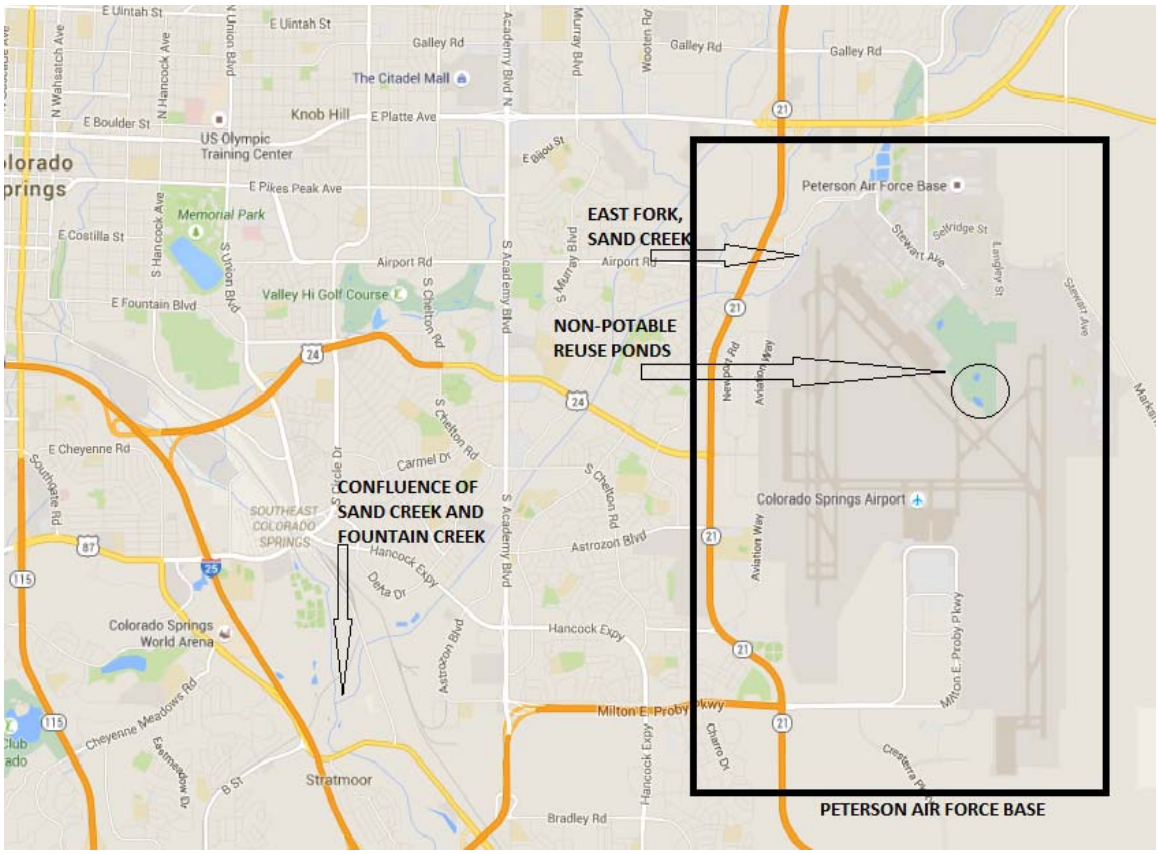
FACILITY:	Peterson Air Force Base Municipal Separate Storm Sewer System (MS4)
PERMIT NO.:	CO-R042006
RESPONSIBLE OFFICIAL:	David F. Clapp, Deputy Base Civil Engineer 21 CES/CD 580 Goodfellow Street Peterson AFB, CO 80914-2370
CONTACT PERSON:	Silvette Rivera-Eliza Water Program Manager sylvette.rivera-eliza@us.af.mil (719) 556-1410
LOCATION:	38.8236° N, 104.6950° W

Facility Background Information:

Peterson Air Force Base is a US Air Force Base (AFB). Peterson AFB is the headquarters for the 21st Space Wing. This organization is the Air Force's only organization providing missile warning and space control to unified commanders and combat forces worldwide. The wing provides missile warning and space situational awareness data to U.S. Strategic Command and North American Aerospace Defense Command through a network of ground-based radars and optics operated by geographically separated units around the world. The 21st Space Wing supports 53 mission partners, including North American Aerospace Defense Command, U.S. Northern Command, Air Force Space Command, Space and Missile Defense Command/Army Strategic Command, and the 302nd Airlift Wing (Reserve) as well as dozens of others from other major commands. Air Force Space Command, created Sept. 1, 1982, was added as a major command headquartered at Peterson AFB. More than 13,400 Airmen, as well as Soldiers, Sailors, Marines, Coast Guardsmen, civil servants and contractors, pass through the gates every day, and the wing is also responsible for providing services to more than 66,000 retirees and dependents.

Peterson AFB is approximately 1,295 acres and is located approximately 4 miles east of the city of Colorado Springs in El Paso County, Colorado. The facility supports a community of approximately 12,000 people including base residents, employees, and contractors. The facility supports numerous activities, which include but are not limited to engineering planning and support, a heating (boiler) plant, water storage, wastewater treatment, vehicle maintenance, airfield support and maintenance, grounds and road maintenance, office buildings, a golf course, and contract housing. Peterson AFB also maintains an agreement for joint operations at the Colorado Springs municipal airport. .

Peterson AFB is a considered a non-traditional phase II Small MS4. The facility was covered under EPA's Small MS4 General Permit under the certification number COR04204F. This individual permit replaces the facility's coverage under EPA's general permit. The new permit number for the USAFA individual permit is COR042006.



Peterson AFB is located approximately 4 miles east of the City of Colorado Springs. The Peterson AFB MS4 discharges to both the East Fork of Sand Creek (a tributary of Fountain Creek) and to a pair of non-potable water re-use ponds.

Receiving Waters:

Stormwater discharging from Peterson AFB drains into two different areas. The majority of municipal stormwater runoff at Peterson AFB drains into a series of non-potable re-use ponds which are immediately adjacent to the Colorado Springs Airport. These ponds are designed not to discharge as that would compromise the integrity and use of the airport. The ponds accept runoff from industrial operations, office buildings, the golf course, and contract housing. The ponds are used as a non-potable water source with a primary water reuse source being golf course irrigation. A drainage divide at Peterson AFB segregates stormwater runoff generated in the northernwestern portion of the base into the East Fork of Sand Creek. The primary outfall which discharges to the East Fork of Sand Creek receives stormwater runoff from office operations, industrial operations, the northern portion of the airfield, and bulk petroleum storage areas associated with airfield operations. Municipal runoff from Peterson AFB which drains to the East Fork of Sand

Creek ultimately discharges to Fountain Creek approximately 5 miles after leaving the base.

Water quality standards approved by the Colorado Department of Public Health and Environment for the receiving waters from this facility are attributed to the following water body segment, COARFO04:

- COARFO04 - 4. All tributaries to Fountain Creek which are not within the boundaries of National Forest or Air Force Academy lands, including all wetlands, from a point immediately above the confluence with Monument Creek to the confluence with the Arkansas River, except for specific listings in segments 5 and 6.

  Designated uses: Aquatic Life Warm 2, Recreation E, Water Supply, Agriculture

Water Quality Impairments:

COARFO04	All tributaries to Fountain Creek, which are not on National Forest or Air Force Academy Land	all	*E.coli*
COARFO04	All tributaries to Fountain Creek, which are not on National Forest or Air Force Academy Land	Sand Creek	Aquatic Life

The receiving water designated as COARFO04 has two impairments listed in the Colorado Section 303(d) List of Impaired Waters and Monitoring and Evaluation List (Colorado Control Regulation #93). These impairments include an impairment for E. coli which applies to all tributaries to Fountain Creek and an impairment of Aquatic Life specifically for Sand Creek, a tributary of Fountain Creek.

At the time of this permit issuance, a TMDL to address this water quality impairment has not been developed. If there is a Total Maximum Daily Load (TMDL) issued for this water which includes a wasteload allocation or specific control measure for municipal stormwater point source discharges, it will be included in the permit upon reissuance. This permit may also be reopened and modified prior its expiration date to include wasteload allocations or specific control measures prescribed in a TMDL.

Prior to development of a TMDL, it is important to evaluate relative contributions of E. coli and potential sources for aquatic life impairment from all MS4s which could cause or contribute to a violation of the water quality impairment.

In order to address the impacts to Fountain Creek and Sand Creek from the Peterson AFB MS4, this permit requires the permittee to develop a program to evaluate the water

quality in the East Fork of Sand Creek, as it enters and leaves Peterson Air Force Base. This program shall at a minimum include evaluations of streambank stabilization, and water quality. The program shall specifically address Peterson Air Force Base's potential contribution to E. coli loading in Fountain Creek and Peterson Base's relative contribution to aquatic life impairments in Sand Creek.

The development of a TMDL to address E. coli in Fountain Creek is listed as a high priority within the Colorado Water Quality Control Commission. Should the development of a TMDL establish wasteload allocations for the Peterson AFB MS4, this permit contains provisions in Part 5.15 which allow the permit to be reopened and modified to include appropriate effluent limits or other appropriate requirements. This language is as follows:

5.15. Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

5.15.1. Water Quality Standards: The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.

5.15.2. Wasteload Allocation: A wasteload allocation is developed and approved by the State of Colorado and/or EPA for incorporation in this permit.

Endangered Species:

Peterson AFB, working with the U.S. Fish and Wild Life Service (FWS) and the State of Colorado, certified in its Notice of Intent (NOI) for permit coverage under the 2003 Region 8 MS4 General Permit, that stormwater discharges and discharge-related activities from the Peterson AFB MS4, would not jeopardize the continued existence of any species that are listed as endangered or threatened ("listed") under the ESA or result in the adverse modification or destruction of habitat that is designated as critical under the ESA ("critical habitat").

"Discharge-related activities" include: activities which cause, contribute to, or result in stormwater point source pollutant discharges; and measures to control stormwater discharges, including the citing, construction, and operation of Best Management Practices (BMPs) to control, reduce, or prevent stormwater pollution.

Peterson AFB is required to evaluate the potential effects of every new construction project through a formal impact analysis. These analyses require that all new projects are designed and maintained such that the existence of listed species cannot be jeopardized and critical habitat cannot be adversely modified or destroyed.

Historic Properties:

In its initial application for MS4 permit coverage in 2003, Peterson AFB, working with State Historic Preservation Officers (SHPOs), certified that stormwater discharges and discharge-related activities from the Peterson AFB MS4 would not affect a property that is listed or is eligible for listing on the National Register of Historic Places as maintained by the Secretary of the Interior. Peterson AFB is required to evaluate the potential effects of every new construction project through a formal impact analysis. These analyses require that all new projects are designed and maintained such that properties listed or eligible for listing on the National Register of Historic Places are not affected.

Limitations on Permit Coverage:

In Part 1.3 of the permit, there are limitations on the types of discharges that are covered under this permit. Parts 1.3.3 and 1.3.4 are provided to note that stormwater discharges from regulated construction activities (i.e., those disturbing equal to or greater than one acre) and stormwater discharges from regulated industrial activities (i.e., those defined as regulated by their industrial classification) are not authorized under this permit. These types of activities need to be authorized under a separate permit. The language limiting the MS4 permit from covering these types of discharges is as follows:

1.3.3. Stormwater Discharges Associated with Industrial Activity. This permit does not authorize stormwater discharges associated with industrial activity as defined in 40 CFR § 122.26(b)(14)(i)-(ix) and (xi).

1.3.4. Stormwater Discharges Associated with Construction Activity. This permit does not authorize stormwater discharges associated with construction activity as defined in 40 CFR § 122.26(b)(14)(x) or 40 CFR § 122.26(b)(15).

Part 1.2 of the permit defines several types of non-stormwater discharges which are authorized under this permit unless the permittee determines they are significant contributors of pollutants. If the permittee identifies any of the following categories as a significant contributor of pollutants, the permittee must include the category as an illicit discharge. The non-stormwater discharges authorized under this permit include:

- Discharges authorized by a separate NPDES permit;
- Discharges in compliance with instructions of an On-Scene-Coordinator pursuant to 40 CFR part 300 or 33 CFR 153.10(e);
- Water line flushing;
- Landscape irrigation;
- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration;
- Uncontaminated pumped ground water;
- Discharges from potable water sources;
- Foundation drains;

- Air conditioning condensate;
- Irrigation water;
- Springs;
- Water from crawl space pumps;
- Footing drains;
- Lawn watering;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Street wash water;
- Power washing where no chemicals are used;
- Roof drains;
- Fire hydrant flushings;
- Non-storm water discharges resulting from a spill which are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to minimize the impact of such discharge;
- Emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to minimize the impact of such discharges; and
- Discharges or flows from fire fighting activities.

Federal Facility MS4s are still encouraged to evaluate these types of discharges and their impact to the MS4. While not specifically required under this permit, a holistic MS4 program would include management practices and control measures specifically tailored to minimize impacts such as erosive potential and streambank degradation from permitted outfalls and remediation efforts authorized under a separate permit or authorized in compliance with the instructions of an On-Scene-Coordinator.

Technology Based Effluent Limitations:

Phase II stormwater regulations were promulgated by EPA on December 8, 1999 (64 FR 68722). These regulations designated two additional categories of stormwater discharges to be permitted and set forth the requirements of for permits. The additional stormwater discharges to be permitted include:

1. Certain Small MS4s, including storm sewer systems at military bases, large hospital or prison complexes, and other storm sewer systems similar to those in municipalities (see 40 CFR § 122.26(b)(16)(iii));

2. Small construction sites (i.e., sites which disturb one to five acres); and

3. Industrial facilities owned or operated by small municipalities which were temporarily exempted from the Phase I requirements in accordance with the provisions of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.

Section 402(p)(3) establishes permit requirements for industrial stormwater discharges and municipal stormwater discharges. Like other discharge permits issued under section 402 of the CWA, permits for industrial stormwater discharges must include technology-based effluent limitations and any more stringent water quality-based effluent limitations (WQBELs) as provided in section 301 of the CWA. However, MS4 permits are subject to a unique provision and must "require controls to reduce the discharge of pollutants to the maximum extent practicable" (MEP) and "such other provisions [determined] appropriate for the control of such pollutants." At a minimum, the Phase II regulations require MS4 permits to require development and implementation of a stormwater management program that includes the six minimum control measures set forth in the regulations. 40 CFR §122.34. EPA considers MEP to be an iterative process in which an initial stormwater management program is proposed and then periodically upgraded as new best management practices (BMPs) are developed or new information becomes available concerning the effectiveness of existing BMPs (64 FR 68754).The permitting authority has discretion to require additional stormwater controls or pollutant reduction requirements to meet water quality standards. *See, Defenders of Wildlife v. Browner*, 191 F.2d 1159, 1166 (9th Cir. 1999).

The effluent limits in this permit establish the requirements for reducing pollutants in the MS4's discharges to the maximum extent practicable and for protecting water quality in the receiving waters. The effluent limitations address the six minimum measures. The permit conditions defined within these six minimum measures and additional measures included in this permit are the means through which Peterson AFB complies with the CWA's requirement to control pollutants in the discharges to the maximum extent practicable (MEP) and comply with the water quality related provisions of the CWA. The permittee is required to comply with all terms of the permit as written.

The Phase II regulations at 40 CFR§122.34 require the following six minimum pollution control measures to be included in SWMP:

1. Public Education and Outreach on Storm Water Impacts;

2. Public Involvement/Participation;

3. Illicit discharge detection and elimination;

4. Construction Site Storm Water Runoff Control;

5. Post-Construction Storm Water Management in New Development and Redevelopment; and

6. Pollution Prevention/Good Housekeeping for Municipal Operations.

The regulations specify required elements for each minimum measure and also include guidance which provides additional information recommended for an adequate program. This individual permit replaces the general permit COR42000F, which included nearly

verbatim the required program elements for each minimum measure as specified in the Code of Federal Regulations. These permit conditions are an iteration of those requirements but are more specifically tailored to the Peterson AFB MS4 in an effort to reduce undue burden and to more specifically address the pollutant sources on-site.

A summary of technology based effluent limits and a rationale for these limits follows:

Stormwater Management Plan

- Stormwater Management Plan. The permittee must maintain a Stormwater Management Plan (SWMP). The SWMP must describe how the permittee will comply with each of the requirements in Parts 2.2-2.8. The SWMP can include citations of documents and electronic records (e.g., manuals, guidance, procedures, electronic management systems, intergovernmental agreements) used to comply with permit requirements. It is not required that the SWMP repeat information included in the cited documents or information systems, but the SWMP must include the names of the most recent versions of the cited documents or information systems and the locations where the supporting documentation is maintained.

- The SWMP must be *immediately* available to EPA. It does not need to be stored or maintained in hardcopy format, but it must be available immediately for printout upon request. The term "immediately" is used as opposed to "when practicable", to avoid situations where it may take weeks or months to assemble a plan when requested. However, it is anticipated that there could be delays in providing a SWMP immediately to EPA. Such delays could involve having the right personnel available to create the necessary linkages between the various data systems which comprise the SWMP. Alternatively, the SWMP can be maintained and available for printout as a summary of activities managed through an electronic data management system so long as the data management system can be made available for review sufficient to determine compliance with the terms of this permit.

- Annual SWMP Review. The permittee must conduct an annual review of the SWMP in conjunction with preparation of the annual report required under Part 3.2 and update the document with the most current information.

Fundamental to the operation of a successful municipal or facility stormwater program is the need to develop a Stormwater Management Plan. The purpose of this plan is to meet the goals of this permit and to prevent deleterious effects to downstream resources from stormwater runoff. These goals should not be mutually exclusive. If they start to become mutually exclusive, the permit should be re-evaluated upon reissuance to incorporate more effective conditions.

In other municipal stormwater permits issued by EPA Region (e.g., Buckley Air Force Base MS4, permit number COR042003), the acronym SWMP referred to creation of a stormwater management program, and the permit did not require the creation of a formal

stormwater management plan. Since issuing these permits, the term “Stormwater Management Program” has been changed to a “Stormwater Management Plan.”

The Stormwater Management Plan provides the framework for the facility to comply with the permit conditions and meet the Clean Water Act goal of reducing pollutants to the Maximum Extent Practicable. The plan establishes roles and responsibilities and is tailored to the facility. This permit does require the use or creation of a written document that describes every specific process in place in detail to meet the terms of the permit, however it does not require that the plan be a detailed description of activities needed to implement the permit conditions. The written plan is required as it can be used to guide facility managers, contractors, and inspectors regarding activities necessary to comply with the terms of the permit. Other tools, such as automated tracking systems and software may integrate better into the facility’s planning, budgeting, and day-to-day tasks. If it is possible to integrate the permit requirements directly into existing tracking and reporting systems, that approach may be more cost effective and reliable provided that the data from the reporting systems are sufficient to demonstrate compliance with the permit conditions. Therefore, this permit provides the flexibility to use such systems and to document them more generally in a Stormwater Management Plan.

It is expected that the SWMP should be an evolving document (or data system extract) which changes over time to reference new procedures and systems.

Public Education and Outreach on Stormwater Impacts

There are several target audiences for public education and outreach at Peterson AFB. These include, but are not limited to:

1. Regular employees and military personnel at Peterson AFB;

2. Facility operators such as wastewater treatment plant, airfield, and industrial facility operators;

3. Contractors hired by the facility (regular and temporary);

4. Residents living in base housing; and

5. Contractors working through intergovernmental agreements (e.g., municipal employees or contractors thereof and utility operators).

The focus of the requirements for Public Education and Outreach is two-fold. First, it is necessary to disseminate information to visitors, workers, military personnel, and tenants regarding how their activities may affect the quality of stormwater runoff. Second, Peterson AFB is required to provide information about Stormwater Control Measures (SCMs) to operators at facilities with pollution generating processes. Public education and outreach is a critical first step in reducing pollutant runoff in stormwater. The first requirement focuses on spreading the word to the public as this may result in behavior

changes which lead to source control of pollutants such as E. coli and nutrients. The second requirement further defines the public at Peterson AFB to including planning staff, project managers, contracting officers and other parties to learn about low impact development, green infrastructure, and post-construction runoff control. Education of these personnel will help aid in the design and maintenance of more effective stormwater controls, since the personnel will understand the purpose for such controls and their intended impact in protecting water quality.

Permit conditions require the following for Peterson AFB:

- Continue to implement an education and outreach program for Peterson AFB which targets project managers, contractors, tenants, and environmental staff in an effort to provide education and outreach about the impacts of stormwater discharges on local water bodies and the steps that can be taken to reduce pollutants in stormwater runoff;

- At a minimum, produce and disseminate informational material to inform the public (i.e., project managers, contractors, tenants, students, and environmental staff) of the effects of erosion and runoff on water quality. Informational materials shall be updated and distributed as necessary throughout the duration of this permit, and should provide a location where all annual reports and/or SWMP updates as required by this permit may be viewed;

- Provide and document training to appropriate planning staff, project managers, contracting officers and other parties as applicable to learn about Low Impact Development (LID) practices, green infrastructure practices, and to communicate the specific requirements for post-construction control and the associated SCMs laid out within the SWMP;

- Provide a stormwater awareness brochure and track its distribution;

- Ensure, to the extent feasible, that any new resident guides include terms for occupancy which relate to household waste management, pet policy, lawn watering, petroleum management, fertilizer/pesticide management, and car washing;

- At a minimum, produce and disseminate informational material to inform employees and contractors working on site of proper hazardous waste collection processes. These materials should be updated and distributed as necessary throughout the duration of the permit; and

- Document education and outreach activities in the SWMP, including documents created for distribution and a training schedule which notes the dates that trainings occurred and the target audiences reached.

Public Involvement and Participation

There are several mechanisms by which employees are involved in decision making processes which can impact environmental resources. It is not necessary to create new internal processes for environmental review. However, documenting the existing processes to ensure that they meet the goals of this permit and educating employees and contracting officials to recognize the goals of the MS4 program will be critical to ensuring that pollutants in stormwater runoff are minimized. Public availability will allow for all interested parties to determine those activities performed by Peterson AFB to protect water quality in the Fountain Creek watershed.

Permit conditions require the following for Peterson AFB:

- Comply with applicable State and local public notice requirements when implementing a public involvement/participation program;

- Make all relevant Annual Reports available on the permittee web site or on another platform which is available to the public in an electronic format;

- Provide volunteer activities (e.g., cleanup days) as practicable to help actively engage residents and personnel at Peterson AFB in understanding water resources and how their activities can affect water quality;

- Maintain a log of public participation and outreach activities performed in the permittee's SWMP; and

- Maintain a copy of the most recent version of the facility SWMP and permit in a publicly accessible format (e.g., available in electronic format, online or in a publicly accessible location);

Illicit Discharge Detection and Elimination

An illicit discharge is defined as any discharge to a MS4 that is not composed entirely of stormwater except discharges pursuant to a NPDES permit and discharges resulting from fire fighting activities. The permit authorizes several non-stormwater discharges and provides requirements to detect, eliminate, and prevent illicit discharges.

In general, Peterson AFB maintains strict control over oil and hazardous wastes through actions independent of its MS4 permit. These include a facility-wide hazardous waste collection and disposal permit, Spill Prevention Control and Countermeasure (SPCC) plans, and tracking of potentially hazardous waste from cradle-to-grave using computerized maintenance management systems. Consistent training helps ensure the success of these programs and other programs like it. Therefore, it is not necessary to create an illicit discharge detection and elimination program independent of the MS4 permit. The MS4 permit contains permit conditions which enhance existing activities without a significant burden. These include requirements to address illicit discharges

within a certain timeframe and maintain an illicit discharge database. It is expected that through more active tracking of illicit discharges, it will be possible to determine if there are specific trends which need to be addressed. The requirement to conduct annual dry weather screening annually has been retained despite the fact that illicit discharges often have not been detected in the past during these screenings. This is because annual dry weather screening will provide environmental staff with a continuing obligation to observe the receiving water. If illicit discharges are not detected, it will still be possible to determine if there is significant erosion from outfall discharges or noticeable debris or trash which needs to be addressed.

This permit does not contain a requirement to stencil all storm drains throughout the MS4 as stenciling 100% of outfalls may be an exercise in diminishing return for the efforts required. Instead, this permit focuses storm drain stenciling to areas with industrial and residential uses in an effort to control specific sources of potential cross-connections and/or illegal dumping. In certain areas, such as along roads with multiple storm drain inlets where there are not activities taking place which could generate illicit discharges, it may not be practicable to install and maintain stencils. Therefore, the permittee has some level of flexibility in storm drain stenciling to provide stencils in residential and industrial areas “as practicable.”

Permit conditions require the following for Peterson AFB:

- Implement a program, policies, and/or procedures to detect and eliminate illicit discharges into its MS4. The program shall include procedures for detection, identification of sources, and removal of non-stormwater discharges from the storm sewer system. This program shall address illegal dumping into the storm sewer system, shall include inventories and investigations of interior floor drains in buildings for evidence of cross-connections between the storm and sanitary sewer systems, and shall include training for staff on how to respond to reports of illicit discharges;

- Effectively prohibit, through ordinance or other regulatory mechanism available under the legal authorities of the MS4, non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions;

- Provide a mechanism for reporting of illicit discharges and provide this number on the Peterson AFB stormwater web site and any outreach materials as appropriate;

- Investigate any illicit discharge within fifteen (15) days of its detection, and shall take action to eliminate the source of the discharge within forty five (45) days of its detection (or obtain permission from EPA for such longer periods as may be necessary in particular instances);

- Maintain an updated storm sewer system map. At a minimum, the map or system of maps maintained within a Geographic Information System (GIS) shall show jurisdictional boundaries, the location of all inlets and outfalls, names and locations of

all waters that receive discharges from those outfalls, locations of post-construction BMPs installed since the effective date of this permit, and locations of all facilities operated by the permittee, including any public or private snow disposal sites. The map shall be available in electronic or digital format as appropriate;

- Develop and maintain an Illicit Discharge Detection and Elimination (IDDE) tracking mechanism which tracks dry weather screening efforts and the location and any remediation efforts to address identified illicit discharges;

- Conduct dry weather screening annually in the East Fork of Sand Creek Air for the presence of non-stormwater discharges;

- Have a household hazardous waste collection day as needed or as practicable, either as AFB activity or in conjunction with nearby civilian jurisdictions; and

- Stencil all storm drains (e.g., paint, placards, stenciling), as practicable, in all areas with industrial uses and residential uses by the end of year four of this permit.

Construction Site Stormwater Runoff Control

At a military installation, construction plans, specifications, inspections, and day-to-day activities are largely driven by contracts. Government construction contracts require that all applicable regulations be followed, and noncompliance with contracts results in a stoppage of work. There are several mechanisms by which Peterson AFB can oversee construction projects in terms of environmental performance and adherence with the construction stormwater general permit (i.e., the CGP). First, construction project plans are reviewed by environmental staff for compliance with the terms of the permit and to review whether BMPs to filter and detain stormwater are likely to be effective. Second, environmental staff independently evaluate construction sites for compliance with the terms of the permit. Third, contracting office technical representatives visit construction sites daily to review whether all terms of the contract, including stormwater permit compliance, are being adhered to. And finally, all construction site contractors are provided with an evaluation at the end of the project which affects whether contractors can be given repeat contracts. Permit conditions have been designed to specifically address each of these mechanisms.

A requirement to maintain and utilize a Notice of Termination (NOT) form specific to Peterson AFB is provided to serve a dual purpose. Having the base ensure that final stabilization has been met on all areas of the site will help assure that vegetation is adequately established. The NOT form will also provide a specific time and place where environmental staff can ensure that they have access to design specifications and operation and maintenance requirements for permanent stormwater control measures installed at site prior to the contractor walking away from the project.

Permit conditions require that Peterson AFB must:

- Require all contractors having a potential of disturbing one or more acres of land within the exterior boundary of Peterson AFB to obtain NPDES permit coverage for their construction stormwater discharges under an applicable EPA permit, and to comply with other applicable State or local construction stormwater requirements For sites disturbing less than one acre, contractors shall comply with requirements as determined by the facility in its SWMP;

- Use an ordinance or other regulatory mechanism available under the legal authorities of Peterson AFB to require erosion and sediment controls and sanctions to ensure compliance with the terms of the NPDES General Permit for Stormwater Discharges for Construction Activity in Colorado, COR12000F (Construction General Permit). This shall include working with contract officers to determine methods for stopping work or penalizing contractors who violate the terms of the aforementioned construction stormwater permit;

- Maintain a list of policies and procedures which can be used to enforce construction site compliance within Peterson AFB independent of EPA staff directly enforcing the CGP;

- Implement procedures for site plan review which incorporate consideration of potential water quality impacts;

- Implement procedures for receipt and consideration of information, including complaints of construction site non-compliance, submitted by the public;

- Review the Scope of Work for construction projects in order to ensure that the SWMP and SCMs for erosion and sediment control and construction dewatering can be determined to be effective given the regulations and environmental conditions at Peterson AFB;

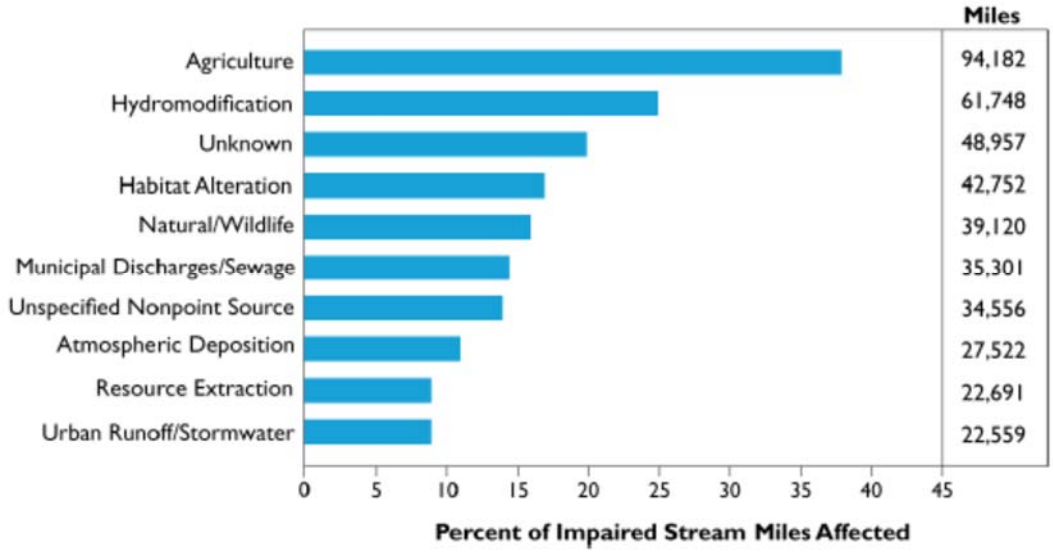
- Implement an inspection plan and keep a copy of that plan in the SWMP which provides inspection triggers and a required timeframe upon which construction sites must be inspected by Peterson AFB staff. All sites within this plan must be inspected at a minimum quarterly;

- Maintain a site inspection form in the SWMP for use by the Peterson AFB construction management and oversight personnel when performing inspections required by Paragraph 2.5.7; and

- Maintain and utilize a Notice of Termination (NOT) form or alternative process for Peterson AFB independent of the CGP NOT form and have Peterson AFB staff inspect all construction sites prior to termination to ensure that 70% vegetative cover has been met at all areas of the site.

Post-Construction Stormwater Management for New Development and Redevelopment

The discharges of post-construction discharges are recognized nationally as a significant source of pollutants to Waters of the U.S. This is quantified through EPA's National Water Quality Inventory Report to Congress, which is publicly available through the EPA web site at www.epa.gov/305b. The latest version of this report summarizes water quality data collected through 2004 and was published in January, 2009 (EPA Document Reference Number 20460 EPA 841-R-08-001). In this latest assessment of water quality, stormwater runoff from can be specifically characterized as a source of impairment in nearly 10% of the rivers and streams assessed nationally.



Source: EPA's National Water Quality Inventory Report to Congress, January, 2009
EPA Document Reference Number: 20460 EPA 841-R-08-001

This assessment that stormwater runoff is a cause of impairment of nearly 10% of the rivers and streams nationwide is likely an underestimate, however, as urban runoff causes impacts such as hydromodification and habitat alteration which are designated as a separate source of impairment and not specifically linked to urban runoff/stormwater.

The purpose of designing and maintaining post-construction stormwater controls is to improve discharge water quality and to reduce instream impacts such as hydromodification and streambank de-stabilization. Capturing and detaining runoff from newly developed impervious surfaces reduces these impacts through storage, infiltration, vegetative/soil sequestration, evapotranspiration or a combination of these processes.

Peterson AFB has become a leader in post-construction stormwater controls and Low Impact Development. Stormwater controls designed to capture and re-use, infiltrate, or evapotranspirate runoff from impervious areas are plentiful and diverse at the base. These controls include a green roof at the 21st Space Wing Headquarters Building, bioinfiltration swales and bioinfiltration runoff islands at the Air Force Space Command Headquarters, source control infiltration galleries at base housing, and extensive use of concrete interlocking pavers. Peterson AFB has been, relative to other facilities in Colorado, an early adopter of stormwater controls which treat pollutants in runoff by

capturing the first flush of runoff on-site. This is due partially to Peterson's commitment to Low Impact Development (LID) through Air Force Space Command and partially due to a desire to reduce runoff and sediment loading to the re-use ponds on site. Since the re-use ponds which capture a majority of the runoff from Peterson AFB do not discharge, efforts to reduce runoff from newly developed surfaces from recent expansions have been both aggressive and effective.

Permit conditions require that the Peterson AFB must:

- Establish and implement a process to ensure that all new and re-development projects that disturb equal to or greater than one acre and that discharge into permittee's small MS4, are designed and constructed with permanent post-construction stormwater control measures designed to prevent or minimize water quality impacts using structural or nonstructural best management practices (BMPs) appropriate for Peterson AFB;

- Maintain a site inspection form in the SWMP for use by Peterson AFB construction management and oversight personnel when performing inspections required by Paragraph 2.5.7; and

- For purposes of this permit, such BMPs shall be selected based on their ability to maintain onsite predevelopment runoff conditions and be implemented onsite, except to the extent it is impracticable to do so;

- Include post-construction BMP "as-builts" for all newly installed permanent stormwater control measures in a georeferenced data management system;

- Ensure that all newly installed post-construction stormwater control measures are working as designed prior to closing out contracts;

- Upon closeout of new construction projects, include maintenance requirements for newly installed permanent post-construction stormwater control measures into a long-term maintenance plan (e.g., the recurring work program); and

- Ensure that permanent post-construction stormwater control measures are included in any applicable warranty reviews.

- To the extent the permittee determines it is impracticable to maintain predevelopment runoff conditions by implementing such BMPs at a new or redevelopment site, it shall install or utilize, and maintain, alternative stormwater control measures to prevent or minimize water quality impacts from the runoff from the new or redevelopment site.

- When updated, include hydrologic performance specifications and information related to the design and maintenance of permanent stormwater control measures in natural resource plans.

- Impracticability Determinations. Reasons for impracticability in Part 2.6.2 include:

    - Low soil infiltration capacity;
    - Shallow depth to bedrock;
    - Downgradient erosion;
    - High groundwater table;
    - High potential for groundwater contamination;
    - Flooding;
    - Existing underground facilities or utilities;
    - Insufficient space due to the small size of the site;
    - Conflicts with requirements of State or local law that impact the use of stormwater controls;
    - Safety considerations; and
    - Other operational or design considerations specific to the military function of the Air Force Academy.

For permanent stormwater control measures to be effective, they must be adequately planned for, installed, and maintained. This permit contains what could be considered cradle-to-grave management of permanent stormwater controls.

This permit clarifies that newly developed and redeveloped sites, at which one or more acres is disturbed, must be designed and constructed using Best Management Practices (BMPs) that are able to maintain on-site pre-development runoff conditions, except to the extent it is impracticable to do so. The permit includes a list of reasons why the permittee may find it impracticable to maintain on-site pre-development runoff conditions using on-site stormwater controls, such as practices that detain, infiltrate or treat-and-release stormwater. The permit also requires Peterson AFB to document its determinations that any such reasons exist for particular projects. The permit also makes clear that maintaining pre-development runoff conditions by implementing such BMPs on-site is preferred, but that where the permittee documents that as impracticable, other controls that prevent or minimize water quality impacts to receiving waters from the MS4's discharges due to the site's stormwater runoff are required.

EPA wrote these permit conditions, in part, to reflect that there may be circumstances that make it impracticable to use BMPs designed to "maintain pre-development runoff conditions" at a new or redevelopment project site. Therefore, where Peterson AFB is confronted by such circumstances at the project location, the permit clarifies the flexibility that is available to the permittee. The permit explains that the permittee first starts by selecting BMPs that are able to maintain pre-development runoff conditions at a new or redevelopment site, and, if reasons exist making it impracticable to design the site with on-site BMPs, then the permittee shall install or utilize, and maintain, alternative stormwater control measures to prevent or minimize water quality impacts from the runoff from the site, for example by directing unmanaged site stormwater to an offsite stormwater detention pond.

<u>Reasons for Making Impracticability Determinations</u>:

EPA focused on site constraints in recognition that at some sites the permittee may be unable to utilize BMPs that are designed to maintain the on-site pre-development runoff conditions for physical (e.g., certain natural or anthropogenic) reasons. EPA also recognizes that in certain circumstances there may be legal, safety, or military operational reasons that render impracticable the use of on-site BMPs to the extent necessary to maintain pre-development runoff conditions.

The examples included in the list were based on a review of available information on typical site constraints, including the constraints discussed in EPA's " Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act," and on the types of on-site constraints that could plausibly occur.

EPA has given Peterson AFB the discretion to make site-specific impracticability determinations for a variety of reasons. First, these determinations are structured, fact-specific, technical determinations concerning individual projects and sites. Peterson AFB is most familiar with its operating environment, and it is most appropriate for the base to assess and analyze the factual and technical details pertaining to post-construction stormwater control on its project sites. Moreover, the Clean Water Act, as interpreted by courts, clearly requires EPA to assess the adequacy of a permittee's stormwater control program, but allows EPA to leave the selection of individual control measures up to permittees. Finally, by specifying a finite list of reasons and requiring impracticability determinations to be documented, EPA has retained its review authority while providing Buckley the limited discretion it requires to make site-specific impracticability determinations. If, after the base submits its annual report detailing, among other things, the site-specific impracticability determinations it has completed, EPA determines that such determinations are not supported by sufficient factual or analytical justification, the Agency has the option of modifying this provision.

If any of the reasons for determining impracticability listed in the permit modification are present at the project site, EPA notes that the permittee is not relieved of the requirement in Part 2.6.2 to implement BMPs with the ability to maintain pre-development runoff conditions. Rather, if the permittee determines that it is impracticable to manage the on-site entire volume of stormwater associated with pre-development runoff conditions due to, for example, one or more of the factors in Part 2.6.3.1, the permittee would still be required to manage as much of this volume as is practicable. In such circumstances, Part 2.6.3 of the permit requires the permittee to install or utilize, and maintain, alternative stormwater control measures that prevent or minimize water quality impacts from post-construction stormwater runoff. The intent of this provision is to require the permittee to maximize the volume of stormwater that is managed through post-construction controls.

For example:

> Suppose Peterson AFB has plans to build new parking facilities on the base, which will result in a total land disturbance of two acres. Because the provision in

Part 2.6.2 of the Permit is triggered for new and redevelopment facility projects disturbing greater than one acre, the base must evaluate the stormwater controls that can be implemented at the site to maintain pre-development runoff conditions. As a result of this evaluation, the base determines that prior to development the previously undeveloped site naturally detains, infiltrates or treats-and-releases a volume of stormwater equivalent to the 80th percentile storm (approximately 0.6" of stormwater for the Denver Metropolitan Area). Peterson AFB then evaluates the stormwater controls that can be used to manage this volume of stormwater at the site. The evaluation concludes that due to the naturally low soil infiltration capacity of the site and the shallow depth to bedrock it would be impracticable to manage the entire volume of stormwater at the site.

Due to these site constraints, Peterson AFB then implements the stormwater controls to maintain the pre-development runoff conditions that are practicable at the site (e.g. if it is determined that maintaining half of pre-development runoff volume is practicable, the base would then utilize BMPs at the site which infiltrate 0.3" of stormwater). Next, the base would turn to the requirement of Part 2.6.3 to evaluate the alternative ways of controlling the project's post-construction discharges that can be installed, or existing controls that can be utilized, in order to minimize water quality impacts. Peterson AFB finds that water quality impacts from sediment from the new parking facility require installing a new control offsite (e.g., vegetative swale) or utilizing an existing offsite control (e.g., detention basin).

Thus, although Peterson AFB may not be managing the entire volume associated with pre-development runoff conditions on-site, it has implemented BMPs to manage some portion of the developed site's runoff on-site to the extent practicable, and has therefore complied with the permit as it installed or utilized, and maintained, alternative stormwater control measures to prevent or minimize water quality impacts from the runoff from the new or redevelopment site. Note that Peterson AFB is also required to provide documentation to EPA in its annual report supporting its conclusion that using only on-site controls to manage the site's post-development stormwater under Part 2.6.2 was impracticable.

<u>Basis for Establishing Impracticability Reasons</u>:

The following section provides further explanation on how the impracticability reasons are meant to be applied. Where it is available, EPA includes information specific to conditions at the base that may influence any impracticability determinations that the base may make.

Low soil infiltration capacity
Sites with poorly infiltrating soils (e.g. high clay content, compacted soils) may limit the type and number of post-construction practices that maintain the on-site pre-development runoff conditions. Stormwater management limitations in areas with tight soils generally preclude large-scale infiltration and groundwater recharge (infiltration that passes into the

groundwater system). However, this does not mean that these tight soils do not have any infiltration and groundwater recharge capabilities.

Shallow depth to bedrock
EPA recognizes that some sites may be able to achieve only limited infiltration due to the presence of bedrock. Design features can mitigate some physical constraints (e.g., deep ripping and addition of soil amendments can increase rates in cases where near surface soil compaction and/or shallow and thin low permeability layers limit infiltration); however physical constraints may be beyond the spatial scale that can be modified by a typical development/redevelopment project (e.g., regional groundwater table, thick layer of low permeability material).

Downgradient erosion
While it is important to consider site slopes with any stormwater controls, it is particularly important in the selection of control measures for sites with steep slopes. Soil erosion and landslides are concerns whenever construction occurs on or near slopes, but become even more of a concern when slopes are saturated with water. Since many stormwater practices that maintain the pre-development runoff conditions may enhance infiltration of water into the soil, consideration should be taken when utilizing stormwater controls at sites with steep slopes.

High groundwater table
Shallow groundwater below an infiltration stormwater control measure can reduce infiltration rates or, if high enough, can result in groundwater discharge to the stormwater drainage system.

High potential for groundwater contamination
Practices that involve infiltration of stormwater may not be appropriate when such practices have a high risk of compromising groundwater quality. This site constraint includes three general categories where stormwater infiltration may not be appropriate. The first category addresses sites in which the soil or subsoil is already highly contaminated (e.g., brownfields). Infiltration of stormwater on these sites could mobilize or spread the contaminants from the soil or subsoil to the groundwater itself. The second category addresses sites at which concentrated pollutants are used or stored. Sites are generally designed to direct stormwater flow from impervious areas to stormwater controls. A concentrated pollutant that spills on the impervious area of such a site (e.g., a parking lot) would likely follow the same path as the stormwater and flow through the stormwater control (e.g., a vegetated swale), infiltrate the surface, and possible contaminate the groundwater. The third category addresses sites in which salts or other dissolved pollutants are used (e.g., road salting). As a result of the presence of these contaminants, elevated levels of dissolved salts are commonly present in meltwater and road runoff in these areas. Salts (and dissolved solids in general) pose a unique risk to groundwater in that they are not degraded in soils and can build up in aquifers over time, particularly where the system does not experience periodic flushing.

Flooding

During periods of extended or large-scale flooding, EPA recognizes that the permittee may be unable to utilize BMPs that attempt to maintain the on-site pre-development runoff conditions. Flooding may also create a safety hazard for human life.

Existing underground facilities or utilities
The presence of existing underground facilities or utilities may prevent the permittee from attempting to maintain the on-site pre-development runoff conditions. This site constraint includes the presence of structures remaining on-site after demolition or the presence of underground facilities or utilities. EPA is including these as site constraints because redevelopment projects are often built on lots with existing structures or utilities and, in some cases, the presence of these structures or utilities may limit the ability of the Permittee to effectively maintain the pre-development runoff conditions.

Insufficient space onsite
EPA recognizes that situations may arise in which the new or redeveloped project will consume most or all of the available space. For example, Peterson has hangars and operational buildings, some of which themselves are larger than an acre, that are bounded on all sides by other buildings, parking lots, runways, etc. Were Peterson to find it necessary to redevelop or rebuild such structures *in situ*, there could be insufficient space to construct post-construction stormwater BMPs on-site.

Conflicts with State or local requirements
Peterson may encounter State or local requirements that conflict with the requirement that it implement certain stormwater controls onsite at new or redevelopment projects. In instances where such conflicts are not resolvable through the selection of a different BMP or suite of BMPs, the State or local requirement could make it impracticable to implement sufficient post-construction stormwater BMPs on-site to manage the site's stormwater.

Safety considerations
Any open water on or near the runway of the Peterson airfield could increase open water habitat that would be present an attractant for waterfowl and other wildlife. Consideration regarding the use of certain post-construction stormwater controls will be necessary to ensure the safety of aircraft and personnel.

Operational or design considerations specific to military function
EPA recognizes that bases with a military function have a variety of operational concerns that are driven by the military nature of their activities and may be thus unique among the universe of small MS4s. EPA does not intend for the implementation of on-site post-construction stormwater controls to interfere with these specific military functions. These types of considerations, however, are not boundless. If the operational and design considerations would be shared by other small, non-military MS4s, then it is unlikely that these considerations are unique to the military function of Peterson AFB and therefore would likely not serve as a basis for an impracticability determination.

<u>Role of Cost in Impracticability Determinations</u>:

EPA notes that the examples provided above are illustrative of the types of site constraints that, where present, could render the use of certain types of stormwater control measures technically impracticable to use. EPA recognizes that there could also be a cost component to the permittee's practicability determination when these site constraints are present in a particular location. EPA would expect, for instance, that where a site has lower soil permeability, designing a stormwater control that relies on infiltration (e.g., rain gardens, bioswales, downspout disconnection, porous pavement) will cost significantly more than for a site with highly permeable soils, because the size of the control would need to increase to compensate for the lack of permeability. However, EPA also notes that the choice of BMPs rests with the permittee, and lower cost options should be considered before determining that it is impracticable to maintain pre-development runoff conditions onsite. The permittee would need to document the rationale for this conclusion.

Pollution Prevention/ Good Housekeeping for Municipal Operations

Municipal operations can be a significant source of pollutants in stormwater runoff-especially when uncontrolled. Potential pollutant sources from municipal operations include sediment from construction activities and excavation dewatering, oil based contaminants from fueling and storage activities, salt from de-icing materials usage and storage, used chemicals and refrigerants from disposed equipment awaiting disposal, herbicides and pesticides from grounds maintenance, and temporary storage of hazardous wastes. The installation and maintenance of control measures for these areas and activities is a critical step to managing an effective stormwater program.

Permit conditions require the following for Peterson AFB:

- Not later than four years from the effective date of this permit, evaluate existing street cleaning operations, catch basin cleaning operations, and street sanding/salt/deicing/anti-icing practices occurring within the base to minimize any negative impacts to water quality. This evaluation must also examine the existing practices for the disposal of waste and maintenance operations. This evaluation must identify any actions or improvements necessary to minimize negative impacts on water quality, and timelines for incorporating such actions or improvements;

- Provide annual training for facility maintenance contracted companies, environmental program managers, and other people identified as having fleet maintenance activities in line with the SWMP. Each of the categories of municipal activities referenced in the SWMP should receive stormwater training;

- Provide deicing training to minimize the use of and runoff from chemical deicers and traction aggregates;

- Develop and implement a schedule for cleanout of storm sewer inlets in a manner which prevents significant deposition of sediment or other debris to receiving waters

and provide data or a description of this schedule and its implementation in the SWMP for the facility;

- Develop and implement a schedule for sweeping streets in a manner which prevents significant deposition of sediment or other debris to receiving waters and provide data or a description of this schedule and its implementation in the SWMP for the facility; and

- Consider the need for and application of cover to prevent airborne deposition of particulates from storage piles at the municipal materials storage yard.

Monitoring:

The Phase II stormwater regulations at 40 CFR §122.34(g) require that small MS4s evaluate program compliance, the appropriateness of the BMPs in their SWMPs and progress towards meeting their measurable goals. Monitoring and assessment activities are included as part of each of the minimum measures of the permit. In addition, Peterson AFB is required to implement a monitoring program which can be used to assess the effectiveness of the MS4 program as whole. The terms of the monitoring program are left open-ended so that Peterson AFB can work with existing internal programs or external programs developed by the City of Colorado Springs or the Urban Drainage and Flood Control District to leverage resources.

Permit conditions require that the Peterson AFB must:

- Not later than three years from the effective date of this permit, the permittee must develop a program to evaluate the water quality in the East Fork of Sand Creek as it enters and leaves Peterson AFB. This program shall at a minimum include evaluations of streambank stabilization, and water quality. The program shall specifically address Peterson AFB's potential contribution to E. coli loading in Fountain Creek and Peterson AFB's relative contribution to aquatic life impairments in Sand Creek.

- The water quality monitoring program may include indicators such as chemical monitoring, assessment of macroinvertebrates or other aquatic life, or watershed assessment of river stability and sediment supply, provided that the monitoring program provides meaningful data to evaluate the effectiveness of the stormwater management program. The permittee is responsible for evaluating data for analysis of trends.

- The water quality monitoring program description must be sent to EPA with the Annual Report for year 3 of this permit term. Programs will be assessed by the water quality monitoring coordinator for EPA Region 8 to determine whether the program meets the goals of this permit and whether the data is being collected and reported in compliance with EPA test procedures approved under 40 CFR Part 136. The

permittee shall incorporate any comments from the EPA concerning goals and test procedures.

Annual Report:

The permittee must submit an annual report to EPA for each year of the permit term. The first report is due April 1, 2016, and must cover the activities during the period beginning on the effective date of the permit through December 31, 2015. Each subsequent annual report is due on April 1 of each year following 2016 for the remainder of the permit term.

This annual report is in place to allow EPA to maintain a working relationship with Peterson AFB in terms of evaluating permit compliance and determining specific needs of Peterson AFB without requiring un-necessary or overly extensive documentation. It essence, it serves a "broad brush stroke" from which further refinements can be evaluated as needed.

The annual reports must, at a minimum, include:

- The requirements which specify what must be included in the annual report for each of the minimum measures in Parts 2.2-2.8;

- A description of all construction activities constructed or proposed to be constructed which disturb equal to or greater than one acre of land during the reporting period;

- Documentation of any public notices and/or meetings held to meet the conditions in Part 2.3.1;

- A description of any changes to the illicit discharge detection and elimination program including description of illicit discharges which were either addressed or eliminated in the past year;

- For sites disturbing equal to or greater than one acre of land, documentation of the inspection process and frequency of construction site inspections as well as a summary of findings from inspections conducted during the reporting period;

- A short summary of the progress towards meeting the goal of reducing pollutant discharges from the Peterson Air Force Base MS4. This should include any successes made during the reporting period, a general assessment of the appropriateness of stormwater controls and progress towards meeting measurable goals for each of the minimum control measures in Parts 2.2-2.7, results of information collected and analyzed such as monitoring data during the reporting period, and a summary of the storm water activities planned during the next reporting cycle;

- A description of any changes made to the SWMP as a result of the annual review required by Part 2.1.2; and

- A description of concerns with permit compliance moving forward, and if applicable, input on how the MS4 permitting process could be made more effective in meeting the goals of protecting water quality.

Public Notice:

Public notice of this permitting action was provided in the Colorado Springs Gazette on September 11, 2015. Additional notifications of this action were provided directly to the permittee, the Colorado Department of Public Health and Environment, and the U.S. Fish and Wildlife Service. Notification was also provided to the EPA Region 8 Interested Parties for Colorado, which includes all entities who wish to receive notification on NPDES permitting actions administered by EPA Region 8.

Five comments were provided during the public notice period. A summary of these comments and a response to each follows.

Comment 1:

Paragraph 2.4.8 allows the permittee to have a household hazardous waste collection day as needed or as practicable as a facility activity "or in conjunction with nearby civilian jurisdictions. As drafted, paragraph 2.4.10.8 requires a description of any hazardous waste collection events and any general summary data covering what was collected in such events. If the permittee participates in such an event with a civilian jurisdiction by offering participation to on-base residents, it seems inappropriate to require the permittee to gather data and report information from the collection by the civilian jurisdiction. Accordingly, we recommend this provision be reworded to state: "A description of household hazardous waste collection events conducted by the MS4, if any, or a description of alternative household hazardous waste disposal options offered by nearby civilian jurisdictions for use by MS4 residents."

Response:

The proposed language has been accepted. This is a logical change. In the scenario where civilian jurisdictions offer household hazardous waste collection to on-base residents, it would be impracticable for the base to collect information on the types of wastes collected through an independent authority. This is especially true for household hazardous waste collection events where collection sites are off-base and/or wastes are transferred directly from on-base residents to a civilian jurisdiction.

Comment 2: (Refers to Part 2.4.10.10)

Military facilities are unique from other MS4s which have private facilities covered by the Multi-Sector General Permit (MSGP) within their MS4. Federal installations are required to comply with the full suite of environmental regulations and serve as both the facility/permit owner and internal compliance oversight. As such, the permit reporting requirement regarding industrial areas is redundant to the MSGP requirements held by

the very same permittees. It creates an additional administrative and manpower burden with no water quality benefit. We request that this requirement be removed from the MS4 permit.

Response:

Part 2.4.10.10 was edited to reduce the burden on reporting industrial activities and their locations on an annual basis to once during the permit term. While the MSGP does contain a similar requirement to note outfall locations, not all industrial activities are required to be permitted under the MSGP. Also, for activities subject to the MSGP but excluded from permitting via a certification of a no exposure, outfall data may not be readily available. A one-time reporting of these activities and their locations will help EPA gather data for permit reissuance, and a holistic characterization of the industrial activities and their locations is important in implementing a municipal separate storm sewer program which is protective of water quality.

Part 2.4.10.10 now reads:

For the Year 1 annual report (due on April 1, 2017 for activities between January 1, 2016 and December 31, 2016), provide an inventory of industrial areas that discharge into the permittee's MS4 or to waters of the United States within Peterson Air Force Base. This inventory must include the location of the activity, the location of its outfall and corresponding receiving water, and the NPDES permit status for its stormwater discharge.

Comment 3:

The permits and Statements of Basis incorrectly state that the applicable Construction General Permit is Permit No COR10000F. Please correct these of Basis permit references to read "COR12000F,"which is the correct permit number.

Response:

This change has been made to all references of permit COR12000F. The permit number for the Construction General Permit changed from COR10000F to COR12000F when it was reissued in 2012. Notification of this error is appreciated.

Comment 4 (Refers to Part 2.5.9):

As currently written, this provision requires that "..staff inspect all construction sites prior to termination to ensure that 70% vegetative cover has been met at all of the site." However, the Construction General Permit allows for nonvegetative stabilization and has other requirements depending on the type of land. Request this statement be rephrased to read, "staff inspect all construction sites prior to termination to ensure final stabilization of the site has been met at all areas of the site utilizing vegetative stabilization."

Response:

This is a logical edit. This recommended language has been included in the permit as this requirement was intended to specifically address vegetative stabilization and not inspections of areas where nonvegetative stabilization methods have been employed.

Comment 5 (Refers to Part 2.6.6):

Request that this provision be changed to read, "Maintain post-construction BMP "as-builts" on file for all newly installed permanent stormwater control measures." Requiring the use of a "georeferenced data management system" is an unnecessary financial and administrative burden.

Response:

The language in Part 2.6.6 has been retained. It is not anticipated that this is an unnecessary financial or administrative burden. Maintaining a georeferenced data management system means that the permittee is required to maintain records of post-construction BMPs which associate data with a physical location as defined by a latitude and longitude. Maintaining a georeferenced data management system does not require the use of raster images or maps with spatial locations in a complex Geographical Information System. Spatial locations can be applied to the locations of post-construction BMPs through the use of readily available technologies such as Internet searches or by taking pictures with a smart phone with location services enabled.

In order for post-construction BMPs to be managed in effective operating condition, it is critical that the locations of these systems be specifically documented using geographic coordinates when they are installed. This is especially true for vegetative post-construction BMPs which utilize specific types of vegetation to infiltrate stormwater runoff and for detention areas from which water is conveyed through an area without a discernible outlet structure. Often times, these systems are compromised as it cannot be determined after-the-fact which specific depressions, vegetative plantings, or other structures were designed with the purpose of treating stormwater runoff.

A data management system is necessary for effective cataloging of stormwater BMPs, and the requirement to maintain a georeferenced data management system in its simplest form requires that each of these assets be associated with a specific geographical (lat/long) location.

Administrative Record:

The administrative record for this permit may be obtained upon request by contacting Greg Davis at 303-312-6314 or by writing or E-mailing to the following address:

Greg Davis
Mailcode: 8P-W-WW
1595 Wynkoop Street
Denver, CO 80202-1129
303-312-6371
davis.gregory@epa.gov

Greg Davis
Wastewater Unit
EPA Region 8
Drafted: July 1, 2015
Modified: November 12, 2015