

## Statement of Basis

FACILITY: Department of Commerce, Boulder Laboratories Municipal  
Separate Storm Sewer System (MS4)

PERMITTEE: National Institute of Standards and Technology (NIST)

PERMIT NO.: CO-R042002

RESPONSIBLE OFFICIAL: Sonja G. Ringen, Manager  
Office of Safety, Health and Environment  
National Institute of Standards and Technology

PHONE: (303) 497-4577

CONTACT PERSON: David Garrity, Environmental Engineer  
Office of Safety, Health and Environment  
National Institute of Standards and Technology  
325 Broadway  
Stop 173.02  
Boulder, CO 80305-3328

### Facility Background Information:

The Department of Commerce Boulder Laboratories is located in the city of Boulder, Colorado adjacent to Highway 93 (Broadway Street). The northern edge is located near the intersection of Broadway St. and Bluebell Avenue and the southern edge is located near the intersection of Broadway St. and Dartmouth Avenue. The facility shares borders with the Highland Park neighborhood to the south and the Green Mountain Memorial Park Cemetery to the north and extends southwest towards the West Highland Park neighborhood and the foothills of Boulder Mountain Park.

This campus houses the National Institute of Standards and Technology (NIST), the National Oceanic and Atmospheric Administration (NOAA), and the National Telecommunications and Information Administration (NTIA). Although three agencies occupy the property, it is managed by NIST, and the stormwater management plan and MS4 permit are administered by NIST personnel.

The primary purpose of the facility is research and development, including support for the standards for frequency and time interval, atmospheric conditions, and weather forecasting. Laboratories are available for research related to electrical engineering, physics, chemistry, materials science and engineering, information technology, and atmospheric research. The facility has approximately 2,000 employees and no residential housing. The majority of the

facility is open space. This open space is relatively steep compared to the developed portion of the facility. Low-density housing is located upgradient between the facility boundary and the rugged Flatirons formation. Development is clustered along the eastern edge of the property and is primarily composed of the NIST and NOAA laboratory complexes. A cluster of small maintenance facilities and a central utilities plant are located to the west and uphill of the laboratories.

Prior to the issuance of this permit, stormwater discharges from the Department of Commerce, Boulder Laboratories, were regulated under EPA's General Permit for Storm Water Discharges from Federal Facility Small Municipal Separate Storm Sewer Systems in Colorado (COR42000F). This permit was issued on June 23, 2003 and expired on June 22, 2008. This general permit was not reissued. The eight facilities covered under the general permit have been or will be issued individual permits for discharges from their MS4s. This approach is being taken so that terms specific to the operations, industrial activities, and receiving water conditions of each facility can be included in each individual permit. It is believed that this approach will result in a permit with more streamlined conditions specifically tailored to the goal of reducing pollutant loading in stormwater runoff.

As part of the process of issuing an individual permit for stormwater discharges from the Department of Commerce, Boulder Laboratories, representatives from EPA Region 8 conducted a facility audit of the MS4 program. The audit team reviewed contracts, regulations, annual reports from the previous permit, and facility operating procedures. Oversight inspections of industrial activities and interviews of program staff were also performed. This audit is available as part of the administrative record for this permit and is available on the EPA Region 8 stormwater web site. A summary of the significant findings from this audit are as follows:

- A stormwater management plan needs to be developed for the Department of Commerce, Boulder Campus.
- The objectives and applicable details of the stormwater management plan need to be communicated between the NIST Engineering, Maintenance and Support Services Division (EMSS), and the NIST Office of Safety Health and Environment (OSHE).
- Contract language needs to be developed which assures that post-construction stormwater Best Management Practices (BMPs) are installed where appropriate to reduce pollutant loading from newly developed impervious surfaces.
- Oversight of construction activities should better ensure that control technologies are installed and maintained in a manner which reduces the discharge of sediment and other pollutants to receiving waterbodies. Specific review checklists with BMP installation and maintenance criteria need to be in place for construction sites.

- Permit conditions need to be included to enhance program performance and streamline review procedures to assure that compliance with the MS4 permit and the goals for reducing pollutant loading in stormwater runoff are not given a relatively low priority.

Recommendations from the facility audit were used to develop specific permit conditions for NIST. Each of these recommendations, as well as more specific findings from the facility MS4 audit are included as permit conditions in this permit. These supplement the previous conditions laid out in EPA's General Permit for Storm Water Discharges from Federal Facility Small Municipal Separate Storm Sewer Systems in Colorado (COR42000F).

#### Receiving Waters:

Stormwater runoff departs the property at two locations, Skunk Creek and Anderson Ditch, both of which are intermittent waterbodies. Skunk Creek bisects the northern portion of the property after flowing through Green Mountain Cemetery. At the time of the facility audit, there was no visible flow in Skunk Creek. Anderson Ditch is an irrigation canal which bisects the property immediately west of the NIST laboratories and continues to the south adjacent to the NOAA laboratories.

Stormwater runoff from Skunk Creek and Anderson Ditch both enter Bear Canyon Creek. Skunk Creek discharges into Bear Canyon Creek during precipitation events approximately ½ mile to the north of the property under US Highway 36. Anderson Ditch, which flows to the south (opposite that of Skunk Creek) discharges into Bear Canyon Creek approximately ¾ mile southeast of the facility at Table Mesa Drive. Bear Canyon Creek drains into Boulder Creek approximately 2 miles downstream of the facility boundary.

#### Water Quality Standards

Anderson Ditch, Skunk Creek, and Bear Canyon Creek are all included in one waterbody segment as defined by the State of Colorado for the purposes of establishing water quality standards. This segment is defined as COSPBO08 and is described as "all tributaries to Boulder Creek, including all lakes, reservoirs, and wetlands from South Boulder Road to the confluence with Boulder Creek and all tributaries to Coal Creek, including all lakes, reservoirs, and wetlands from Highway 93 to the confluence with Boulder Creek."

#### **Stream Classification and Water Quality Standards**

Stream Segment	Classifications	Physical and Biological	Inorganic (mg/L)	Metals (ug/L)
Boulder Creek Segment 8	Use Protected  Aq Life Warm 2 Recreation 1a Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 F. Coli=200/100ml E.Coli=126/100ml	NH3(ac/ch)=TVS CL2(ac)=0.019 CL2(ch)=0.011 CN=0.005 S=0.002 B=0.75 NO2=1.0 NO3=10 Cl=250	As(ac)=340 As(ch)=0.02-10(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=WS(dis) Fe(ch)= 1000(Trec)

			SO4=330	Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)** Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac)=TVS Se(ch)=8 Ag(ac/ch)=TVS Zn(ac/ch)=TVS
--	--	--	---------	---

### Water Quality Impairments

There are no impaired waters within the facility. Bear Creek Canyon does drain into an impaired water at Boulder Creek approximately six miles downstream. Boulder Creek (segment COSPBO10) currently has a Total Maximum Daily Load (TMDL) analysis with allocations applied to address high ammonia concentrations and reduced diversity of aquatic life. No load or wasteload allocations were provided for storm sewer systems as a part of this TMDL. In addition, Boulder Creek (segment COSPBO10) is also on the State of Colorado's impaired waterbody list for an E. coli impairment.

### Endangered Species

Coverage under this permit is available only if the stormwater discharges, allowable non-storm water discharges, and discharge-related activities are not likely to:

- 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"); or
- Cause a prohibited "take" of endangered or threatened species (as defined under Section 3 of the Endangered Species Act and 50 CFR 17.3), unless such takes are authorized under sections 7 or 10 of the Endangered Species Act.

"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.

Upon its initial certification for MS4 permit coverage in 2003, NIST, working with the U.S. Fish and Wild Life Service (FWS) and the State of Colorado, certified in its Notice of Intent (NOI) application, that stormwater discharges and discharge-related activities from the Department of Commerce, Boulder Laboratories, 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"). NIST continues to work with FWS and the State to update its endangered species lists and is required to evaluate the potential affects 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

Coverage under this permit is available only if the stormwater discharges, allowable non-stormwater discharges, and discharge-related activities are:

- Not likely to 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; or
- In compliance with a written agreement with the State Historic Preservation Officer (SHPO) that outlines all measures the MS4 operator will undertake to mitigate or prevent adverse effect to the historic property.

Upon its initial certification for MS4 permit coverage in 2003, NIST, working with State Historic Preservation Officers (SHPOs), certified in its Notice of Intent (NOI) application, that stormwater discharges and discharge-related activities from the Department of Commerce Boulder Laboratories 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. NIST continues to work with SHPOs to update its listing of historic properties and any other archeological areas of significance and is required to evaluate the potential affects 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.

### Technology Based Effluent Limits

NPDES permit coverage for these discharges is required in accordance with the 1987 Amendments to the Clean Water Act (CWA), and final EPA regulations for Phase II storm water discharges (64 FR 68722, December 8, 1999). The 1987 Water Quality Act (WQA) amended the Clean Water Act (CWA) by adding section 402(p) which requires that NPDES permits be issued for various categories of storm water discharges. Section 402(p)(2) requires permits for the following five categories of storm water discharges:

1. Discharges permitted prior to February 4, 1987;
2. Discharges associated with industrial activity;
3. Discharges from large municipal separate storm sewer systems (MS4s) (systems serving a population of 250,000 or more);
4. Discharges from medium MS4s (systems serving a population of 100,000 or more, but less than 250,000); and
5. Discharges judged by the permitting authority to be significant sources of

pollutants or which contribute to a violation of a water quality standard.

The five categories listed above are generally referred to as Phase I of the stormwater program. In Colorado, Phase I MS4 permits have been issued by the Colorado Department of Public Health and Environment (CDPHE) to the cities of Denver, Lakewood, Aurora, Colorado Springs, and the highway system operated by the Colorado Department of Transportation within those cities. In Colorado, NPDES permitting authority for Federal Facilities has not been delegated to CDPHE. Therefore, EPA maintains NPDES primacy for those facilities.

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

1. Small MS4s;
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.

The 1987 CWA amendments clarified the fact that industrial storm water discharges are subject to the best available technology (BAT) / best conventional technology (BCT) requirements of the CWA, and applicable water quality standards. For MS4s, the CWA specifies a new technology-related level of control for pollutants in the discharges - control to the maximum extent practicable (MEP). However, the CWA is silent on the issue of compliance with water quality standards for MS4 discharges. In September 1999, the Ninth Circuit Court addressed this issue and ruled that water quality standards compliance by MS4s is discretionary on the part of the permitting authority (*Defenders of Wildlife v. Browner*, No. 98-71080).

The technology based effluent limits for this permit are largely based on the implementation of a Stormwater Management Program (SWMP) which addresses six minimum measures. The SWMP and additional measures included in this permit are the means through which NIST 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. EPA considers MEP to be an iterative process in which an initial SWMP is proposed and then periodically upgraded as new BMPs are developed or new information becomes available concerning the effectiveness of existing BMPs (64 FR 68754). 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. The permit includes nearly verbatim the required program elements for each minimum measure. The permit also includes a number of additional requirements for each minimum measure which were derived from the recommendations of the regulations and from findings recognized during the facility audit which could affect the implementation of an effective stormwater program.

A summary of technology based effluent limits is as follows:

### **General Requirements**

- The permittee must continue to develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy Colorado's water quality standards. The SWMP must include management practices; control techniques, system design, engineering methods, and other provisions the permittee or EPA determines appropriate for the control of pollutants in discharges from the MS4;
- The permittee must fully implement the SWMP, including meeting its measurable goals. Implementation should take place in approximate equal intervals throughout the permit and progress will be tracked in the annual report;
- The SWMP must include each of the minimum control measures. For each of the minimum control measures the SWMP must include the BMPs that will be implemented and the measurable goals for each of the BMPs including, as appropriate, the months and years in which the required actions will be started and completed, and the frequency of the action; and
- The permittee must conduct an annual review of the SWMP in conjunction with preparation of the annual report.

**Public Education and Outreach on Stormwater Impacts:** The permittee must:

- Continue to implement an education and outreach program for the Department of Commerce, Boulder Laboratories, which targets project managers, contractors, tenants, the facility daycare center, 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, 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 fleet maintenance staff, site maintenance staff, Engineering, Maintenance, and Support Services (EMSS) construction project managers, and Contracting Office Technical Representatives (COTRs) to learn about the policies and procedures for maintaining construction site runoff controls, applicable industrial onsite Best Management Practices (BMPs), and management of stormwater runoff using post-construction stormwater controls;
- Provide a stormwater awareness brochure and track its distribution;
- At a minimum, produce and disseminate informational material to inform the public 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 should be disseminated to laboratory staff;
- Distribute materials to employees which utilize information from the Keep It Clean Partnership; 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/Participation.** The permittee must:

- 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 provide links to all relevant Annual Reports posted on the EPA Region 8 web site in a locally available publication; and
- Distribute materials which discuss the stormwater management program and include the location of the annual reports and the stormwater management plan. These should be distributed to NIST/NOAA/NTIA staff and to the City of Boulder.



**Illicit Discharge Detection and Elimination.** The permittee must:

- Initiate an illicit discharge screening program, which includes an appropriate inspection schedule for Building #23, Building #21, the municipal operations yard and storm drain inlet, and Anderson Ditch as it bisects and exits the facility. This program shall address illegal dumping into the storm sewer system, and 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 any outreach materials as appropriate;
- Investigate any illicit discharge within fifteen (15) days of its detection, and take action to eliminate the source of the discharge within forty five (45) days of its detection;
- 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 municipally-owned and operated facilities, including any public or private snow disposal sites. The map shall be available in electronic or digital format as appropriate;
- Conduct dry weather screening annually at each of the major drainages within the Department of Commerce, Boulder Laboratories, for the presence of non-stormwater discharges. The screening should include field tests of selected chemical parameters as indicators of discharge sources where dry weather flows are detected. Screening level tests may utilize less expensive “field test kits” using test methods not approved by EPA under 40 CFR Part 136, provided the manufacturer’s published detection ranges are adequate for the illicit discharge detection purposes. The permittee shall 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;
- Address the categories of non-stormwater discharges or flows listed in **Part 1.3.2** and require local controls or conditions on these discharges as necessary to ensure that they are not as significant contributors of pollutants to the small MS4. If the permittee identifies any of these non-stormwater discharges as a significant contributor of pollutants, the permittee must include the category as an illicit discharge, include the non-stormwater discharge in the list of potential pollutants in the SWMP, and implement a

plan of action to minimize or eliminate the illicit discharge as soon as practicable;

- Develop a list of other similar occasional incidental non-stormwater discharges that will not be addressed as illicit discharges. These non-stormwater discharges shall not be reasonably expected (based on information available to the permittee) to be significant sources of pollutants to the MS4 because of either the nature of the discharges or conditions the permittee has established for allowing these discharges to the MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive waterbodies, BMPs on the wash water, etc.);
- Replace storm drain stencils with those provided by the Keep It Clean Partnership as necessary;
- Develop and communicate an SOP between EMSS, OSHE, and affected contractors for Building #23, which addresses how materials are transported to the building from laboratories, how materials are segregated based on properties (e.g., oxidizers, reactives, solvents), available safety equipment, and protocols for reporting and cleaning of spills;
- Include absorbent materials directly adjacent to all vehicle fueling areas;
- Establish an inventory of underground and above ground storage tanks;
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper waste disposal; and
- Consider mechanisms for construction site dewatering and the potential need for permit coverage or alternative BMPs in NEPA reviews for new construction projects

**Construction Site Stormwater Runoff Control.** The permittee must:

- Provide adequate direction to ensure that “representatives” of “regulated construction activities” obtain permit coverage under the NPDES General Permit for Stormwater Discharges for Construction Activity in Colorado, COR10000F (Construction General Permit). “Representatives” include entities contracted by the permittee and any staff engaging in “regulated construction activities.” For the purposes of this permit, “regulated construction activities” include development and re-development that results in a land disturbance of greater than or equal to one acre or disturbs less than one acre if the development or redevelopment is part of a larger common plan of development or sale that would disturb one acre or more. If EPA waives the permit requirements for storm water discharges associated with a specific small construction activity (i.e., a single project) in accordance with §122.26(b)(15)(i)(A) or (B), the permittee is not required to develop, implement, and/or enforce a program to reduce pollutant discharges from that

particular site;

- Use an ordinance or other regulatory mechanism available under the legal authorities of the permittee 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, COR10000F (Construction General Permit);
- Maintain a list of policies and procedures which can be used to enforce construction site compliance within the Department of Commerce, Boulder Laboratories 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;
- Address construction site dewatering with specific controls required and necessary testing and permits prior to awarding construction contracts;
- Maintain a site inspection form in the SWMP for use by NIST stormwater managers at sites which includes BMP maintenance specifications as required in the UDFCD Criteria Manual Volume 3;
- Provide herbicide/pesticide applicators with the opportunity to comment during the design review process for new construction projects to deal with returning vegetation to pre-construction conditions and eliminating weeds through intelligent design;
- Evaluate inspections performed by other EMSS staff, as applicable, and conduct oversight inspections to ensure that inspection criteria being inspected by these representatives are consistent with those noted in the inspection criteria provided in the inspection form in the SWMP and to ensure compliance with NIST's MS4 permit, which includes meeting the terms with the terms of EPA's Construction General Permit (CGP). EMSS and OSHE staff need to concurrently evaluate site BMPs periodically to ensure that site assessment is not indirectly or directly tied to contract performance;
- Ensure that EMSS COTRs report all areas of significant non-compliance noted during inspections and utilize stop work orders where BMPs are not installed and maintained properly; and
- Include language in Requests For Proposal (RFPs) for new construction projects which requires compliance with the SWMP.

**Post-construction Stormwater Management for New Development and Redevelopment.**

The permittee must:

- Starting the first day of the reissued permit, coordinate NEPA review procedures and review contracts to ensure that no projects shall be made available for bidding without procedures, best management practices, and costs provided to ensure that runoff from newly developed or re-developed impervious surfaces equal to or greater than one acre meets pre-development hydrology;
- Use an ordinance or other regulatory mechanism to require the installation and maintenance of post-construction stormwater controls;
- Implement a program which ensures the adequate long-term operation and maintenance of post-construction BMPs;
- Ensure, to the maximum extent possible, that a line item is included in every new proposal for new development to ensure that post-construction stormwater requirements are met. This should include a line item for cost for post-construction BMPs based on cost estimates noted in the stormwater management plan along with a specific performance specification (i.e., maintaining pre-development hydrology) or BMP specification which ensures that all new projects disturbing one acre are designed to maintain pre-development hydrology;
- Utilize a Notice of Termination (NOT) form so that construction site operators provide maintenance specifications for post-construction BMPs to NIST prior to receiving authorization from stormwater managers to submit a NOT form to discontinue coverage under the CGP;
- Ensure that all new post-construction BMPs are tracked and georeferenced in a data management system that includes maintenance requirements and schedules for post-construction BMPs; and
- Consider a one-year review coinciding with the 1-year warranty provided in contracts to ensure functioning of post-construction BMPs. There could also be a ½ year inspection for post-construction stormwater BMPs as part of the file inspection for contracts. File inspection could also include targeted outreach to the end user

**Pollution Prevention and Good Housekeeping for Municipal Operations.** The permittee must:

- 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 their jurisdiction 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 public education and outreach for 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;
- Develop SOPs for the vehicle maintenance facility, municipal yard, and operations such as deicing which includes locations of potential pollutant sources and appropriate inspection locations and schedules;
- Provide outreach to laboratory employees on appropriate disposal practices for hazardous wastes, nonhazardous wastes, refrigerants, and large items such as laboratory equipment;
- Consider deicing training if available 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 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
- Develop an inspection protocol using new or existing tools for tracking inspections at municipal operations.

#### Water Quality Based Effluent Limits

The SWMP and additional measures included in this permit are the means through which NIST 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 control its discharge as necessary to meet applicable water quality standards. Part 1.3.5 of the permit includes eligibility restrictions for discharges to water quality impaired waterbodies. As written in Part 1.3.5 of the permit, EPA will notify MS4 operators whose discharges are likely to cause or contribute to a water quality impairment, or whose discharges contribute directly or indirectly to a 303(d) listed waterbody. If EPA determines that discharges from the MS4 are causing or contributing to a water quality impairment, that MS4's SWMP must include a section describing how the program will control the discharge of the pollutants of concern and ensure discharges from the MS4 will not cause or contribute to

instream exceedances of the water quality standards. This documentation must specifically identify measures and BMPs that will collectively control the discharge of the pollutants of concern.

### Monitoring

The Phase II storm water 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 described in Parts 2.1-2.6 of the permit. In addition, the permittee is required to implement a monitoring program which can be used to assess the effectiveness of the MS4 program as whole. The terms of this monitoring program are as follows:

- Not later than three years from the effective date of this permit, the permittee must develop a program to evaluate the water quality in Anderson Ditch and Skunk Creek, as they enter the Department of Commerce Boulder Campus, and as they leave the Department of Commerce Boulder Campus. This program shall at a minimum include evaluations of streambank stabilization, and water quality;
- 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; and
- 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.

### 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 address listed below:

Ellen Bonner  
EPA Region 8  
Mailcode: 8P-W-WW  
1595 Wynkoop Street  
Denver, CO 80202-1129  
303-312-6371

[bonner.ellen@epa.gov](mailto:bonner.ellen@epa.gov)

Additional stormwater information is available on EPA Region 8's web site at:  
[www.epa.gov/region8/stormwater](http://www.epa.gov/region8/stormwater).

---

Greg Davis  
Wastewater Unit  
EPA Region 8  
Drafted: February 10, 2009