

# STORMWATER MANAGEMENT AT NIST-BOULDER

NIST S 7301.11

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## 1. PURPOSE

The purpose of this suborder is to establish the requirements and associated roles and responsibilities regarding the discharge of stormwater, and to outline the program elements to ensure compliance with regulatory and permit requirements and applicable policies at NIST Boulder.

## 2. BACKGROUND

- a. The Department of Commerce (DoC) Boulder Labs encompasses 206 acres and includes over 25 buildings, 2.3 miles of roads, and 9.8 acres of parking lots. Approximately 140 acres is set aside as open space and is used by DoC Boulder Labs personnel and the public.

Impervious surfaces at the DoC Boulder Labs (roofs, pavement) prevent rain, snow, and sleet from infiltrating naturally into the soil. Stormwater runoff is routed and conveyed away from these impervious surfaces by storm drains and storm sewers and released to the City of Boulder Storm Sewer System and nearby streams. As stormwater flows to its collection and release points it picks up pollutants including litter, oil, gasoline, anti-freeze, landscape debris, fertilizers, herbicides, pesticides and sediments. Large amounts of impervious surface also increase the amount of stormwater runoff, which during large rain events can degrade the quality of the streams that receive the runoff. Stormwater management practices are intended to reduce the quantity and improve the quality of stormwater runoff.

- (1) The U.S. Environmental Protection Agency (EPA) issued the DoC Boulder Labs, including NIST, a permit to discharge stormwater, regulating its discharges into the site's stormwater management system with a primary emphasis on pollution prevention and erosion control. The permit designates the DoC Boulder Labs as a Small Municipal Separate Storm Sewer System, also known as an MS4 Permit.

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<sup>1</sup> The revision history for this document can be found in Appendix A

37 (2) This document outlines the requirements of the MS4 Permit and the portions of the  
38 overall DoC Boulder Labs Stormwater Management Program applicable to NIST  
39 Boulder. The MS4 permit requires that the DoC Boulder Labs produce and maintain a  
40 stormwater management plan (SWMP), identifying permit requirements, the process for  
41 meeting those requirements and the party responsible for each action.

42  
43 b. [NIST P 7300.00](#) articulates NIST’s commitment to making environmental management,  
44 including management of stormwater in compliance with applicable regulations and permits,  
45 an integral core value and vital part of the NIST culture by, in part:

46  
47 (1) Complying with applicable laws, regulations, and other promulgated safety and health  
48 requirements; and

49  
50 (2) Abating deficiencies and taking actions to prevent incidents from occurring.

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52 c. The DoC Boulder Laboratories must meet the requirements of the following:

53  
54 (1) [40 CFR Parts 100-149](#); and

55  
56 (2) [5 CCR 1002-38](#).

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58

59 **3. APPLICABILITY**

60 a. This suborder applies to all activities at the NIST-Boulder site that may impact stormwater.

61  
62 Under the cross-service agreement, personnel employed by or contracted by other  
63 agencies at the DoC Boulder Laboratories are required to comply with the requirements  
64 of the DoC Boulder Labs SWMP, Municipal Separate Storm Sewer System Permit,  
65 applicable state and federal regulations and the cross services agreement.

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68 **4. REFERENCES**

69 Legal and other requirements common to all NIST Environmental Suborders can be found in  
70 Section 4 of [NIST O 7301.00](#). The legal and other requirements specific to this suborder are  
71 as follows:

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74 a. 40 CFR 100-149, [Water Programs](#)

75 b. COR042004, [NPDES General Permit for Discharges from State and Federal Small  
76 Municipal Separate Storm Sewer Systems](#), issued 1 October 2014

- 77 c. [DoC Boulder Labs Stormwater Management Plan \(SWMP\)](#)  
78  
79 d. COR10F000, [EPA Construction General Permit 2022 Revisions](#)  
80  
81 e. Public Law 110-140, [Energy Independence and Security Act, Section 438](#)  
82  
83 f. [USEPA Technical Guidance on Implementing the Stormwater Runoff Requirements for](#)  
84 [Federal Projects under Section 438 of the Energy Independence and Security Act \(EPA841-](#)  
85 [B-09-001\)](#)  
86  
87 g. [Mile High Flood Control District Criteria Manual.](#)  
88  
89 h. [Department of Commerce, Department Administrative Order \(DAO\) 202-751, Discipline](#)  
90  
91 i. [Federal Acquisitions Regulations \(FAR\), Subpart 49.4, Termination for Default](#)  
92  
93

## 94 5. APPLICABLE NIST DIRECTIVES

95 Other NIST Environmental Suborders applicable to work covered by this suborder include  
96 the following:

- 97  
98 a. NIST S 7301.01: [Environmental Management System;](#)  
99  
100 b. NIST S 7301.07: [Chemical Waste Accumulation and Disposal at NIST Boulder;](#)  
101  
102 c. NIST S 7301.09: [Oil Storage and Handling at NIST Boulder;](#) and  
103  
104 d. NIST S 7301.13: [Wastewater Management at NIST Boulder.](#)  
105  
106

## 107 6. REQUIREMENTS

### 108 a. General Requirements and Limitations on Coverage

109

110 (1) Duty to Comply - NIST shall develop a stormwater management program designed to  
111 reduce the discharge of pollutants to the maximum extent practicable. This shall be  
112 accomplished through the implementation of the terms of the MS4 permit described in  
113 Section 6.b below.

114  
115 (2) Duty to Mitigate – NIST shall take all reasonable steps to minimize or prevent any  
116 discharge that has a reasonable likelihood of adversely affecting human health or the

117 environment. Implementation of these control measures is addressed in the DoC Boulder  
118 Labs SWMP.

119  
120 (3) Signature of Authorized Administrator – All required reports, notifications and other  
121 information submitted to EPA shall be signed by a duly authorized employee. These  
122 employees include:

123 (a) BSHED Chief (MS4 Permit application, annual report, responses to regulatory  
124 agencies);

125  
126 (b) NIST Boulder Operations Director (MS4 Permit application, annual report, responses  
127 to regulatory agencies, stormwater management plan);

128  
129 (c) NIST Boulder Laboratory Director (MS4 Permit application, annual report, responses  
130 to regulatory agencies, stormwater management plan);

131  
132 (d) NIST Chief Safety Officer (MS4 Permit application, annual report, responses to  
133 regulatory agencies, stormwater management plan); and

134  
135 (e) NIST Chief Facilities Management Officer (construction permits for projects covered  
136 under the EPA Construction General Permit).

137  
138 (4) Authorized Discharges – The discharges below are allowed under the MS4 permit, when  
139 properly managed to minimize pollutants introduced into stormwater:

140  
141 (a) Stormwater, including precipitation runoff and snow melt;

142  
143 (b) The following discharges from operation and maintenance activities:

144  
145 i. Water line flushing;

146 ii. Landscape irrigation;

147 iii. Diverted stream flows;

148 iv. Rising ground waters;

149 v. Uncontaminated ground water infiltration;

150 vi. Uncontaminated pumped ground water;

151 vii. Discharges from potable water sources;

152 viii. Foundation drains;

153 ix. Air conditioning condensate;

154 x. Irrigation water;

155 xi. Springs;

156 xii. Water from crawl space pumps;

- 157           xiii.    Footing drains;
- 158           xiv.    Lawn watering;
- 159           xv.    Flows from riparian habitats and wetlands;
- 160           xvi.    Dechlorinated swimming pool discharges;
- 161           xvii.   Street wash water;
- 162           xviii.   Power washing where no chemicals are used;
- 163           xix.    Roof drains;
- 164           xx.    Fire hydrant flushings;
- 165           xxi.    Emergency discharges required to prevent imminent threat to human
- 166                    health or severe property damage, provided that reasonable and prudent
- 167                    measures have been taken to minimize the impact of such discharges;
- 168                    and
- 169           xxii.   Discharges or flows from firefighting activities occurring during
- 170                    emergency situations.

171

172           **Note:** Discharges associated with industrial (manufacturing, processing or raw

173                    materials storage at an industrial plant) or construction activities (clearing, grading

174                    and/or excavating) must be authorized under an applicable National Pollutant

175                    Discharge Elimination System (NPDES) Sector Permit or the EPA Construction

176                    General Permit. Industrial stormwater discharges do not occur at the DoC Boulder

177                    Labs.

- 178
- 179           (5) Management of Change
- 180                    On an ongoing basis, the Boulder Safety, Health and Environment Division (BSHED)
- 181                    Stormwater Program Manager shall:
- 182
- 183                    (a) Evaluate new projects and changes to existing systems and equipment, to evaluate the
  - 184                            applicability of State and/or Federal stormwater regulations or permit terms;
  - 185
  - 186                    (b) Determine any necessary actions that must be taken by NIST prior to implementation
  - 187                            (e.g., Best Management Practices [BMP] implementation, permit modifications); and
  - 188
  - 189                    (c) Provide guidance to implement action items needed to ensure full compliance
  - 190                            throughout the change process.

- 191
- 192           b. Permit Requirement Minimum Control Measures
  - 193                    NIST shall implement BMPs necessary to meet the following minimum control measures, as
  - 194                    outlined in the SWMP.

195

196

197 (1) Personnel Education and Outreach  
198 Public Education and Outreach shall be provided through announcements in the Boulder  
199 Labs Weekly Bulletin. The processes for complying with this requirement may be found  
200 in the DoC Boulder Labs SWMP.

201  
202 (2) Public Involvement and Participation  
203 The processes identified in the DoC Boulder Labs Stormwater Management Plan shall be  
204 followed by the personnel designated as responsible parties.

205  
206 (3) Illicit Discharge Detection and Elimination and Reporting

207  
208 (a) Spills and releases to stormwater, considered illicit discharges under the MS4 Permit,  
209 shall be reported in compliance with the NIST Boulder Accidental Hazardous  
210 Material Release Reporting Procedure (AHMRRP).

211  
212 In the event of an accidental or unauthorized discharge that may result in a violation  
213 of the permit requirements or negatively affect the environment, BSHED shall notify  
214 the following:

- 215
- 216 • Colorado Department of Public Health and Environment 877-518-5608
  - 217 • EPA Region 8 303-312-6312
  - 218 • City of Boulder 303-413-7340
- 219

220 (b) The NIST Boulder Program Manager shall perform dry weather screening by visually  
221 monitoring the following locations for sources of water other than previously  
222 identified sources. Dry weather screening shall be performed no less than seven days  
223 following a rain event and when there is no snow present to avoid misidentifying  
224 runoff as a possible illicit discharge.

225  
226 i. Dry weather screening shall be performed at the following locations:

- 227
- 228 (i) Outfalls in the open space between Building 33 and Broadway;
  - 229 (ii) Stormwater basin south of Building 33;
  - 230 (iii) Building 1 North Basin;
  - 231 (iv) Building 1 South Basin;
  - 232 (v) Drop inlet along Marconi Rd northwest of Wing 1 of Building 1;  
233 and
  - 234 (vi) Visitor Center Basin.
- 235

236 ii. Each screening location shall be monitored for the following:

- 237  
238 (i) Discharges not previously identified;  
239 (ii) Visible contamination; and  
240 (iii) Odors.  
241  
242 iii. The following sources of groundwater intrusion or discharges from  
243 dewatering have been identified:  
244  
245 (i) Condensate and dewatering from Building 33 discharging to the  
246 outfalls in the open space between Building 33 and Broadway;  
247 (ii) Dewatering from Building 42 discharging to the basin south of  
248 Building 33;  
249 (iii) Groundwater intrusion from foundation drains/sump at Building 81  
250 discharging to the Building 1 North Basin.  
251 (iv) Dewatering from Wing 6 of Building 1 discharging to the Building  
252 1 South Basin; and  
253 (v) Dewatering from Wing 5 of Building 1 discharging to the City of  
254 Boulder storm sewer system under Broadway north of Building 1  
255 (monitored at a storm sewer drop inlet northwest of Wing 1).  
256  
257 iv. If needed sampling will be performed to identify contaminants;  
258  
259 v. Discharges of contaminants shall be reported per 6.b.(3)(a); and  
260  
261 vi. The sources of discharges containing contaminants shall be investigated and  
262 the responsible OU or agency (if not part of NIST) shall be responsible for  
263 eliminating the illicit discharge.  
264  
265 vii. The processes identified in the DoC Boulder Labs SWMP shall be followed  
266 by the personnel designated as responsible parties.  
267  
268 (4) Construction and Stormwater Runoff Control  
269 The processes identified in SOP #2 - *Construction Site Plan Review* of the DoC Boulder  
270 Labs Stormwater Management Plan shall be followed by the personnel designated as  
271 responsible parties.  
272  
273 (5) Post-construction Stormwater Management  
274 The processes identified in SOP #1 - *Post-Construction Stormwater Planning and Design*  
275 in the DoC Boulder Labs Stormwater Management Plan shall be followed by the  
276 personnel designated as responsible parties.

277 (6) Pollution Prevention and Good Housekeeping  
278 The processes identified in the DoC Boulder Labs SWMP shall be followed by the  
279 personnel designated as responsible parties.

280

281 c. Monitoring and Reports

282

283 (1) Monitoring - Monitoring shall be conducted to evaluate the effectiveness of the  
284 stormwater management program, including evaluation of this Suborder and the SWMP  
285 to ensure that the requirements of the MS4 permit are met.

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287

288 (a) An Annual Audit of the Stormwater Management Program shall be conducted by the  
289 BSHED Stormwater Program Manager to evaluate the effectiveness of the programs  
290 and BMPs implemented. The audit shall be completed in time to use the contents to  
291 produce the Annual Report and submit it to EPA by the April 1 deadline specified in  
292 the MS4 permit. Required information (inspection reports, maintenance procedures  
293 and reports and other documentation) shall be requested from OFPM and  
294 GSA/NOAA by February 1 so the information can be provided by March 1 allowing  
295 sufficient time to complete the audit and annual report. The specific requirements and  
296 elements of the Annual Audit and report are detailed in the MS4 Permit and SWMP.

297

298 (b) The NIST Chief Facilities Management Officer (CFMO) shall ensure that the  
299 contracting officer representative (COR) for a construction project or other designated  
300 personnel monitor all contractor construction projects to ensure that proper erosion  
301 and sedimentation elements are in place and functioning properly. This includes  
302 documented inspections on at least a monthly basis.

303

304 (c) The NIST Chief Facilities Management Officer (CFMO) shall ensure that in-house  
305 excavation and earth moving activities include properly implemented erosion and  
306 sedimentation controls and that these controls are effective.

307

308 (d) BSHED shall periodically review construction activities and other activities on-site to  
309 ensure that proper stormwater management pollution prevention practices are in  
310 place. Reviews include:

311

312 i. Review of construction plans for compliance with the MS4 permit (post  
313 construction stormwater BMPs) and EPA Construction General Permit (CGP),  
314 including but not limited to the Stormwater Pollution Prevention Plan  
315 (SWPPP), and design/specifications for erosion and sediment control BMPs;

316



- 317                   ii. Review monthly inspections performed by the contracting officer  
318                   representative or other Design and Construction Division-Boulder personnel;  
319  
320                   iii. Quarterly inspections of construction sites permitted under the CGP;  
321  
322                   iv. Semiannual sitewide inspections of outdoor research and maintenance areas,  
323                   including dry weather screening and looking for illicit discharges;  
324

325                   See SOPs 1, 2, 4, 6, 7 and 8 in the SWMP for the processes.  
326

327                   (e) Currently, BSHED performs only qualitative monitoring of water quality. If negative  
328                   impacts on water quality are suspected, The BSHED Stormwater Program Manager  
329                   shall perform additional sampling or monitoring appropriate to the suspected  
330                   contamination. See SOP #7 - *Stormwater Illicit Discharge Detection, Elimination and*  
331                   *Reporting Program* for documentation of the inspection process.  
332

- 333                   i. Stream monitoring shall be performed on a quarterly basis using the following  
334                   process:  
335

336                   (i) Observing Skunk Creek and Anderson Ditch at the following points:  
337

- 338                   • Anderson Ditch at the northern boundary of the DoC Boulder  
339                   Labs;
- 340                   • Anderson Ditch at the southern boundary of the DoC Boulder  
341                   Labs;
- 342                   • Skunk Creek at the upstream boundary with the Green  
343                   Mountain Cemetery; and
- 344                   • Skunk Creek upstream of the King Avenue bridge.  
345

346                   (ii) Making a qualitative evaluation of the following:  
347

- 348                   • Bank stability;
- 349                   • Presence of trash;
- 350                   • Color of water;
- 351                   • Odor from water;
- 352                   • Clarity/turbidity of water;
- 353                   • Presence/absence of floating solids;
- 354                   • Presence/absence of settled solids;
- 355                   • Presence/absence of foam; and

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- Presence/absence of an oil sheen.
- (iii) Reporting illicit discharges in accordance with 6.b.(3)(a).
- (f) The BSHED Stormwater Program Manager shall submit an annual report to EPA (address below) regarding the status of the stormwater management program. The report is due on 1 April of each year.
- (g) Reports shall be submitted to EPA at the following address:
- U.S. EPA, Region 8  
Policy, Information Management & Environmental Justice  
Program (8ENF-PJ)  
Attention: Director  
1595 Wynkoop Street  
Denver, Colorado 80202-1129
- d. Maintenance
- (1) Best management practices (BMPs) subject to this Suborder shall be maintained in a manner that ensures compliance with performance requirements established in the MS4 Permit. Stormwater management features require periodic maintenance, including cleaning of debris, shoring, mulching, replanting, replacement of piping, etc. A program of scheduled preventative maintenance (PM), inspections of BMPs, and maintenance and repair areas has been established by the NIST Office of Facilities and Property Management. The PM inspections shall be tracked in the MAXIMO Asset Management System or a system replacing MAXIMO.
- (2) Personnel identified as being responsible for maintenance activities in Section 9 shall ensure that maintenance is performed in compliance with the SWMP and MS4 Permit.
- (3) Maintenance activities shall be documented per Section 6.g.
- e. Evaluation of Compliance
- (1) BSHED Stormwater Program Manager shall conduct a compliance evaluation of the regulatory requirements of this program on at least an annual basis. A spreadsheet identifying the requirements of the MS4 Permit and the status of actions implemented to comply with the requirements has been developed and is in use for this purpose.

- 396 (2) Results of compliance evaluations shall be documented and records maintained as EMS  
397 Records per Section 6.g.  
398  
399 (3) Findings from compliance evaluations shall be addressed using the requirements for Non-  
400 Conformances, Corrective and Preventive Action found in [NIST S 7301.01](#)  
401 [Environmental Management System](#).  
402

403 f. Training  
404

- 405 (1) Training required for Public Education and Outreach shall be provided to DoC Boulder  
406 Labs personnel in the form of announcements in the Boulder Labs Weekly Bulletin.  
407 Announcements cover pollution prevention, waste management and reporting of releases.  
408 Copies of announcements shall be included in the annual report.  
409  
410 (2) In order to meet the Illicit Discharge/Release Reporting requirements of the MS4 permit,  
411 NIST Boulder personnel shall complete the following training when applicable to their  
412 duties:  
413  
414 (a) [NIST S 7301.07: Accidental Hazardous Material Release Training for Users](#); or  
415  
416 (b) [NIST S 7301.07: Accidental Hazardous Material Release Training for Non-Users](#);  
417 and  
418  
419 (c) [NIST S 7301.07: Hazardous Waste Generator Training for NIST Boulder](#) or [NIST S](#)  
420 [7301.07 Boulder Labs Hazardous Waste Generator Training for OFPM Boulder](#)  
421 [Personnel](#) either in SET or a classroom session, if handling or generating hazardous  
422 waste.  
423  
424 (3) NIST Boulder personnel performing tasks related to petroleum storage tanks or oil-filled  
425 equipment shall complete one of the following division-specific courses in SET or a  
426 classroom session.  
427  
428 (a) [NIST S 7301.09: Boulder Spill Prevention, Control and Countermeasures \(SPCC\)](#)  
429 [Training](#) (OFPM personnel)  
430  
431 (b) [NIST S 7301.09: SPCC Training for Division 184](#)  
432  
433 (c) [NIST S 7301.09: Spill Prevention, Control and Countermeasures Training for](#)  
434 [Division 647](#)  
435

- 436 (d) [NIST S 7301.09: Spill Prevention, Control and Countermeasures Training for](#)  
437 [Division 688](#)  
438
- 439 (4) Personnel responsible for construction or projects shall complete [NIST S 7301.11:](#)  
440 [Boulder Stormwater Compliance and Management on Construction Projects](#). Training is  
441 available in SET or in classroom sessions.  
442
- 443 (5) Contracting officers for any construction projects shall complete [NIST S 7301.11:](#)  
444 [Environmental Requirements for Construction Contracts – Boulder](#).  
445
- 446 (6) Personnel with responsibilities for inspecting construction sites permitted under the EPA  
447 Construction General Permit shall be trained in the procedure for inspecting stormwater  
448 BMPs. This requirement includes completing [NIST S 7301.11: Construction Inspection](#)  
449 [Training Course - EPA National Pollutant Discharge Elimination System \(NPDES\)](#).  
450
- 451 (7) Personnel responsible for facilities operation and maintenance shall complete [NIST S](#)  
452 [7301.11: Boulder Stormwater Compliance and Management for Operations and](#)  
453 [Maintenance](#). Training is available in SET or in classroom sessions.  
454
- 455 (8) The NIST Chief Facilities Management Officer (CFMO) shall ensure that job-specific  
456 training listed in the permit and SWMP is provided to personnel with responsibilities for  
457 maintenance, snow removal and pesticide/herbicide application duties.  
458

459 g. Recordkeeping

- 460
- 461 (1) NIST shall maintain records as necessary to demonstrate compliance with the MS4  
462 Permit and other stormwater related regulations. These records shall be submitted to  
463 EPA upon request and shall be available to the public at reasonable times during regular  
464 business hours. To ensure proper identification, storage, protection, retrieval, retention,  
465 and disposal of records, EMS Records Management shall be performed in accordance  
466 with [NIST S 7301.01 Environmental Management System](#).  
467
- 468 (a) Records needed to demonstrate compliance with general MS4 Permit requirements  
469 shall be maintained by BSHED. See Section 9 for identification of parties responsible  
470 for keeping records. These include:  
471
- 472 i. Annual reports identified in Section 6.c.
  - 473 ii. Reports of releases to stormwater
  - 474 iii. Regulatory Correspondence
  - 475 iv. Audit Reports

- 476 v. Inspection Records
- 477 vi. Training Records
- 478 vii. Maintenance records
- 479 viii. Permit Applications and related information
- 480 ix. Current and Historic Permits, including Construction Permits
- 481 x. Current and Historic SWMPs.

482  
483 (b) Records to demonstrate compliance with equipment-specific requirements of the MS4  
484 Permit shall be maintained by the various groups identified in Section 9.

485  
486 (c) All records required by this Suborder shall be maintained for a period of no less than  
487 three (3) years after termination of the DoC Boulder Labs MS4 Permit.

488  
489

## 490 7. DEFINITIONS

491 Definitions common to all NIST EMS suborders can be found in Section 7 of [NIST O](#)  
492 [7301.00](#).

493

- 494 a. Contaminant – Any material that may negatively impact water quality. See *pollutant*.
- 495  
496 b. Pollutant – Per 40 CFR 122.2, any dredged spoil, solid waste, incinerator residue, filter  
497 backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological  
498 materials, radioactive materials (except those regulated under the Atomic Energy Act of  
499 1954, as amended (42 U.S.C. 2011 *et seq.*)), heat, wrecked or discarded equipment, rock,  
500 sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.
- 501  
502 c. Post-Construction Stormwater Control Measures – Permanent stormwater control measures  
503 or BMPs designed to remain in place after completion of construction in order to retain,  
504 detain, infiltrate or treat stormwater discharges from impervious surfaces installed as part of a  
505 development or redevelopment project.

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## 508 8. ACRONYMS

509 Acronyms common to all NIST EMS suborders can be found in Section 8 of [NIST O 7301.00](#).  
510 The acronyms specific to this suborder are as follows:

511

- 512 a. AHMRRP – NIST Boulder Accidental Hazardous Material Release Reporting Procedure
- 513  
514 b. BMP – Best Management Practice

515

- 516 c. BSHED – NIST Boulder Safety, Health and Environment Division (153)  
517  
518 d. CDPHE – Colorado Department of Public Health and Environment  
519  
520 e. CFMO – NIST Chief Facilities Management Officer  
521  
522 f. CGP – EPA Construction General Permit  
523  
524 g. COR – Contracting Officer Representative  
525  
526 h. EMS – NIST Environmental Management System  
527  
528 i. EPA – U.S. Environmental Protection Agency  
529  
530 j. FAR – Federal Acquisitions Regulations  
531  
532 k. MHFD – Mile High Flood District  
533  
534 l. MS4 – Municipal Separate Storm Sewer System  
535  
536 m. OFPM – NIST Office of Facilities and Property Management  
537  
538 n. OSHE – NIST Office of Safety, Health and Environment  
539  
540 o. SET – NIST Safety Education and Training system  
541  
542 p. SPCC – Spill Prevention, Control and Countermeasures  
543  
544 q. SWMP – Stormwater Management Plan  
545  
546 r. SWPPP – Stormwater Pollution Prevention Plan  
547  
548

549 **9. RESPONSIBILITIES**

550 Roles and responsibilities common to all NIST Environmental Suborders can be found in  
551 Section 9 of [NIST O 7301.00](#). The roles and responsibilities specific to this suborder are as  
552 follows:  
553

- 554 a. Chief Safety Officer, as NIST’s designated Environmental Manager, the Chief Safety Officer  
555 is responsible for overseeing NIST’s efforts in complying with the requirements identified in  
556 this suborder.  
557
- 558 b. OU Directors are responsible for:  
559
- 560 (1) Establishing implementing policies and procedures, as needed, for the requirements of  
561 this suborder to be met;
  - 562 (2) Ensuring subordinate managers have the authority, resources, and training needed to  
563 implement OU-established policies and procedures;  
564
  - 565 (3) Ensuring illicit discharges resulting from OU activities are mitigated; and  
566
  - 567 (3) Using OU funds to pay any civil penalties identified in regulatory inspections and  
568 resulting from regulatory violations in their respective OUs.  
569
- 570 c. Division Chiefs and Group Leaders are responsible for:  
571
- 572 (1) Implementing this suborder as it applies to activities involving their personnel and space  
573 in accordance with any applicable OU-established policies and procedures;  
574
  - 575 (2) Ensuring contaminants and pollutants are handled in a manner preventing illicit  
576 discharges;  
577
  - 578 (3) Ensuring releases are reported in accordance with NIST policy and procedures  
579 (AHMRRP or procedure replacing it);  
580
  - 581 (4) Ensuring regulatory inspectors are provided access to areas under their supervision;  
582
  - 583 (5) Upon receiving inspection reports on their respective workplaces, ensure corrective  
584 actions are performed;  
585
  - 586 (6) Ensuring deficiencies or violations resulting from regulatory inspections of areas  
587 operated by that OU are addressed in the timeframe required by the regulatory agency;  
588 and  
589
  - 590 (7) Ensuring releases of pollutants (illicit discharges) caused by division personnel are  
591 sanctioned in accordance with DAO 202-751.  
592  
593

- 594 d. NIST Boulder Employees, Associates and Contractors are responsible for the following:  
595  
596 (1) Ensuring their activities do not release pollutants to stormwater;  
597  
598 (2) Reporting to the BSHED any activity that may release stormwater pollution or  
599 unauthorized discharges into the environment;  
600  
601 (3) Reporting any spills or releases to their supervisor or the contracting officer  
602 representative for the project on which they are working (construction and maintenance  
603 contractors only).  
604
- 605 e. The BSHED Stormwater Program Manager is responsible for the following:  
606  
607 (1) Ensuring compliance with monitoring and reporting requirements established in the MS4  
608 permit;  
609  
610 (2) Performing an internal compliance evaluation and program audit once per calendar year  
611 at a minimum to verify ongoing compliance with the MS4 Permit;  
612  
613 (3) Reporting to the EPA as specified in Section 6.c;  
614  
615 (4) Communicating the regulatory requirements to affected personnel and providing training  
616 as necessary. Providing informational outreach to NIST staff regarding stormwater and  
617 encouraging participation in local events;  
618  
619 (5) Performing annual dry weather screening as described in 6.b.(3)(b).  
620  
621 (6) Performing a review of site design packages to ensure that the requirements of the MS4  
622 Permit are incorporated into any stormwater management element;  
623  
624 (7) Performing field verification of construction projects to ensure that proper erosion and  
625 sedimentation practices are being employed and are effective, including:  
626  
627 (a) Performing quarterly oversight inspections; and  
628  
629 (b) Support to construction CORs.  
630  
631 (8) Maintaining this Suborder and the SWMP.  
632  
633 (9) Maintaining general records identified below:



- 634 i. Annual reports identified in Section 6.c.;
- 635 ii. Reports of releases to stormwater;
- 636 iii. Regulatory Correspondence;
- 637 iv. Audit Reports;
- 638 v. Inspection Records;
- 639 vi. Training Records;
- 640 vii. Monitoring reports;
- 641 viii. Permit Applications and related information;
- 642 ix. Current and Historic Permits, including Construction Permits; and
- 643 x. Current and Historic SWMPs.
- 644
- 645 f. The NIST Chief Facilities Management Officer (CFMO) is responsible for the following:
- 646
- 647 (1) Ensuring fertilization, herbicidal, and pesticide practices, equipment maintenance, and
- 648 general landscaping are performed in a manner that minimizes stormwater pollution and
- 649 complies with the requirements identified in the MS4 Permit and SWMP;
- 650
- 651 (2) Ensuring excavation and other earth-moving activities are performed in a manner to
- 652 minimize disturbance, minimize erosion and sedimentation and that proper erosion
- 653 controls are implemented on projects managed by OFPM personnel;
- 654
- 655 (3) Ensuring discharges associated with activities performed or managed by OFPM
- 656 personnel comply with Subpart 1.3.2 for the MS4 Permit. Note: “pollutants” also
- 657 includes heated water and sediment;
- 658
- 659 (4) Obtaining and maintaining training for personnel as identified in the MS4 Permit;
- 660
- 661 (5) Ensuring landscaping is performed in a manner that promotes soil stabilization, prevents
- 662 erosion and controls noxious weeds;
- 663
- 664 (6) Ensuring the site’s stormwater management features and storm sewer system are
- 665 maintained as part of NISTs preventive maintenance program;
- 666
- 667 (7) Ensuring any nonconformance, release or excursion is immediately reported to BSHED;
- 668
- 669 (8) Ensuring complaints from DoC Boulder Labs personnel or the public regarding
- 670 stormwater management and compliance are addressed when occurring in areas for
- 671 which OFPM is responsible;
- 672

- 673 (9) Ensuring up-to-date drawings of the storm sewer system are maintained. See SOP #3  
674 *Storm Sewer Map Updating* in the SWMP;  
675
- 676 (10) Ensuring maintenance and inspections are performed in compliance with the MS4 permit  
677 and SWMP. See SOP #4 – 6 in the SWMP;  
678
- 679 (11) Maintaining records of maintenance activities on stormwater or erosion control elements,  
680 including the following:  
681
- 682 (a) Construction COR’s inspection reports;
  - 683
  - 684 (b) Electronic Notices-of-Intent (eNOI) submitted to EPA; and
  - 685
  - 686 (c) Reports from preventative maintenance (PM) inspection of maintenance areas,  
687 stormwater basins, channels and storm sewers.
  - 688
- 689 (12) Ensuring any construction projects managed by OFPM personnel are performed in  
690 compliance with the requirements of the MS4 Permit, EPA Construction General Permit,  
691 DoC Boulder Labs Stormwater Management Plan, Mile High Flood District Criteria  
692 Manual, Section 438 of the Energy Independence and Security Act;  
693
- 694 (13) Ensuring engineering and design services comply with the requirements of the MS4  
695 permit, SWMP (including SOP#1) and applicable regulations. This includes  
696 specifications, plans and designs being revised to comply with Subsections 2.6.9 and  
697 2.6.10 of the MS4 Permit;  
698
- 699 (14) Ensuring plans and designs for new stormwater management systems or significant  
700 modification of existing systems conform with the *USEPA Technical Guidance on*  
701 *Implementing the Stormwater Runoff Requirements for Federal Projects under Section*  
702 *438 of the Energy Independence and Security Act (EPA841-B-09-001)* and the *Mile High*  
703 *Flood Control District Criteria Manual*;  
704
- 705 (15) Ensuring the following tasks are completed for any new construction project that disturbs  
706 >1 acre or is part of a larger plan of development exceeding one acre:  
707
- 708 (a) A SWPPP is prepared in compliance with the CGP;
  - 709
  - 710 (b) The SWPPP is submitted to BSHED for review;
  - 711
  - 712 (c) The SWPPP is revised to address comments and correct deficiencies;

- 713  
714 (d) The contractor does not begin land-disturbing work until the eNOI has been approved  
715 by EPA. No contact from EPA for 14 days after certification of the eNOI is  
716 considered *de facto* approval;  
717
- 718 (e) OFPM personnel conduct required monitoring of erosion and sedimentation controls  
719 during construction, and escort EPA erosion and sedimentation inspectors as needed;  
720 and  
721
- 722 (f) Construction contractors comply with the terms of the CGP, install and maintain  
723 BMPs per MHFD specifications and update the SWPPP to reflect current conditions.  
724
- 725 (16) Ensuring all NIST construction contracts contain clauses requiring the contractor's  
726 compliance with applicable stormwater regulations and permit terms;  
727
- 728 (17) Provide oversight of all contracted construction work to ensure compliance with relevant  
729 stormwater regulations;  
730
- 731 (18) Ensuring complaints from DoC Boulder Labs personnel or the public regarding  
732 stormwater management and compliance are addressed when occurring in areas for  
733 which OFPM is responsible;  
734
- 735 (19) Ensuring all deliverables, including drawings and warranty information are provided by  
736 contractors before contractor submits Notice-of-Termination to EPA. See SOPs #2 and 3  
737 in SWMP;  
738
- 739 (20) Ensuring appropriate dewatering permits are obtained for construction projects;  
740
- 741 (21) Maintaining all records required by any construction stormwater permits;  
742
- 743 (22) Ensuring all contracts for development or redevelopment exceeding one acre or part of a  
744 larger plan of development exceeding one acre include the means to enforce the  
745 requirements of the MS4 permit and CGP;  
746
- 747 (23) Ensuring all contracts for development or redevelopment exceeding one acre or part of a  
748 larger plan of development exceeding one acre include requirements for post-construction  
749 stormwater control measures that comply with Subparts 2.6.9 or 2.6.10 of the MS4  
750 Permit;  
751

752 (24) Ensuring contracts for development or redevelopment projects exceeding one acre or part  
753 of a larger plan of development exceeding one acre include requirements for review of  
754 designs and plans by a certified pesticide/herbicide applicator or landscape  
755 architect/planner to ensure that revegetation plans contain effective plans for  
756 establishment of vegetation and control of noxious weeds following construction or that  
757 vegetation complies with the requirements of the Boulder Labs Site Master Plan;

758  
759 (25) Ensuring contracts for development or redevelopment projects larger than 5000 ft<sup>2</sup> but  
760 smaller than 1 acre in area include terms requiring compliance with Section 438 of the  
761 Energy Independence and Security Act;

762  
763 (26) Ensuring the requirements of the MS4 Permit and CGP are enforced on construction  
764 contractors and utilize contractual sanctions as specified in Subpart 49.4 of the Federal  
765 Acquisitions Regulation (FAR) to ensure compliance; and

766  
767 (27) Ensuring contractors do not submit a notice-of-termination to EPA prior to providing all  
768 deliverables (including as-built drawings of any storm sewers or stormwater controls) and  
769 stabilizing the site to the point that 70% of the site is revegetated.

770  
771 g. NIST Boulder, Emergency Services Office, Emergency Coordinator is responsible for the  
772 following:

- 773  
774 (1) Ensuring Occupant Emergency Plan is followed during response to any emergency;  
775  
776 (2) Informing the DoC Boulder Labs Boulder Board of Directors of the emergency and the  
777 nature of the response; and  
778  
779 (3) Review reports of releases submitted to regulatory agencies.

780  
781 h. Department of Commerce Police is responsible for the following:

- 782  
783 (1) Securing areas around reported releases;  
784  
785 (2) Notifying Emergency Coordinator of release;  
786  
787 (3) Serving as incident commander until relieved; and  
788  
789 (4) Assisting emergency responders from outside agencies (Boulder-Fire Rescue) with  
790 accessing the DoC Boulder labs facility and locating the release.

791

792 **10. AUTHORITIES**

793 There are no authorities specific to this suborder alone. For authorities applicable to all NIST  
794 Environmental Suborders, see section 9 of [NIST O 7301.00](#).

795  
796 NIST/DoC and/or regulatory agency inspectors and inspection team members are authorized  
797 to:

- 798
- 799 a. Enter without delay, and at reasonable times, any building, installation, facility,  
800 construction site, or other area, workplace, or environment where work is performed;  
801
  - 802 b. Inspect and investigate during regular working hours and at other reasonable times, and  
803 within reasonable limits and in a reasonable manner, workspaces including all pertinent  
804 conditions, structures, machines, apparatus, devices, equipment, and materials therein;  
805
  - 806 c. Consult with a reasonable number of employees, associates or contractors during the  
807 walkaround;  
808
  - 809 d. Question privately any worker, supervisor, or manager in charge of the workspace; and  
810
  - 811 e. Deny the right of accompaniment to any person whose participation interferes with a fair  
812 and orderly inspection.
- 813

814

815 **11. DIRECTIVE OWNER**

816 Chief Safety Officer

817  
818

819 **12. APPENDICES**

820

821 A. Revision History

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824  
825

### Appendix A. Revision History

Version	Approval Date	Effective Date	Description of Change
1	03/14/2023	03/14/2023	None – Initial Document

826  
827  
828  
829