Amend Section 209 - TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL to read as follows:

"SECTION 209 - TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL

209.01 Description. This section describes the following:

- (A) Including detailed plans, diagrams, and written Site-Specific Best Management Practices (BMP); constructing, maintaining, and repairing temporary water pollution, dust, and erosion control measures at the project site, including local material sources, work areas and haul roads; removing and disposing hazardous wastes; control of fugitive dust (defined as uncontrolled emission of solid airborne particulate matter from any source other than combustion); and complying with applicable State and Federal permit conditions.
- **(B)** Work associated with construction stormwater, dewatering, and hydrotesting activities and complying with conditions of the National Pollutant Discharge Elimination System (NPDES) permit(s) authorizing discharges associated with construction stormwater, dewatering, and hydrotesting activities.
- (C) Potential pollutant identification and mitigation measures are listed in Appendix A for use in the development of the Contractor's Site-Specific BMP.

Requirements of this section also apply to construction support activities including concrete or asphalt batch plants, rock crushing plants, equipment staging yards/areas, material storage areas, excavated material disposal areas, and borrow areas located outside the State Right-of-Way. For areas serving multiple construction projects, or operating beyond the completion of the construction project in which it supports, the Contractor shall be responsible for securing the necessary permits, clearances, and documents, and following the conditions of the permits and clearances, at no cost to the State.

- **209.02 Materials.** Comply with applicable materials described in Chapters 2 and 3 of the current HDOT "Construction Best Management Practices Field Manual". In addition, the materials shall comply with the following:
 - (A) Grass. Grass shall be a quick growing species such as rye grass, Italian rye grass, or cereal grasses. Grass shall be suitable to the area and provide a temporary cover that will not compete later with permanent cover. Alternative grasses are allowable if acceptable to the Engineer.

- **(B)** Fertilizer and Soil Conditioners. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Engineer. Fertilizer shall conform to Subsection 619.02(H)(1) Commercial Fertilizer.
- **Hydro-mulching.** Hydro-mulching used as a temporary vegetative stabilization measure shall consist of materials in Subsections 209.02(A) -Grass, and 209.02(B) - Fertilizer and Soil Conditioners. Mulches shall be recycled materials including bagasse, hay, straw, wood cellulose bark, wood chips, or other material acceptable to the Engineer. Mulches shall be clean and free of noxious weeds and deleterious materials. Potable water shall meet the requirements of Subsection 712.01 - Water. Submit alternate sources of irrigation water for the Engineer's acceptance if deviating from 712.01 - Water. Installation and other requirements shall be in accordance with portions of Section 641- Hydro-Mulch Seeding including 641.02(D) - Soil and Mulch Tackifier, 641.03(A) - Seeding, and 641.03(B) - Planting Period. Install non-vegetative controls including mulch or rolled erosion control products while the vegetation is being established. Water and fertilize grass. Apply fertilizer as recommended by the manufacturer. Replace grass the Engineer considers unsuitable or sick. Remove and dispose of trash and debris. Remove invasive species. Mow as needed to prevent site or signage obstructions, fire hazard, or nuisance to the public. Do not remove down stream sediment control measures until the vegetation is uniformly established, including no large bare areas, and provides 70 percent of the density of pre-disturbance vegetation. Temporary vegetative stabilization shall not be used longer than one year.
- **(D) Silt Fences.** Comply with ASTM D6462, Standard Practice for Silt Fence Installation.

Alternative materials or methods to control, prevent, remove and dispose pollution are allowable if acceptable to the Engineer.

209.03 Construction.

(A) Preconstruction Requirements.

(1) Water Pollution, Dust, and Erosion Control Meeting.
Schedule a water pollution, dust, and erosion control meeting with the
Engineer after Site-Specific BMP is accepted in writing by the
Engineer. Meeting shall be scheduled a minimum of 14 calendar days
prior to the issuance of Notice to Proceed. Discuss sequence of work,
plans and proposals for water pollution, dust, and erosion control.

(2) Water Pollution, Dust, and Erosion Control Submittals. Submit a Site-Specific BMP Plan within 30 calendar days of contract execution. Submission of complete and acceptable Site-Specific BMP Plan is the sole responsibility of the Contractor and additional contract

95 96 97	time will not following:	be issued for delays due to incompleteness. Include the	е
98	(0)	Military description of activities to minimize water	
98	(a)	Written description of activities to minimize water	
100		tion and soil erosion into State waters, drainage or sewe)r
100	Syste	ems. BMP shall include the following:	
101		1 An identification of notantial nellutants and the	:
102		 An identification of potential pollutants and the sources. 	11
103		sources.	
104		2. A list of all materials and heavy equipment to be	_
106		used during construction.	C
107		used during constituction.	
107		3. Descriptions of the methods and devices used to	_
109		minimize the discharge of pollutants into State waters	
110		drainage or sewer systems.	>,
111		dramage of sewer systems.	
112		4. Details of the procedures used for the	_
113		maintenance and subsequent removal of any erosion of	
114		siltation control devices.	,,
115		omanon dominor dovidos.	
116		5. Methods of removing and disposing hazardous	s
117		wastes encountered or generated during construction	
118		The state of the s	•
119		6. Methods of removing and disposing concrete and	d
120		asphalt pavement cutting slurry, concrete curing water	
121		and hydrodemolition water.	,
122		•	
123		7. Spill Control and Prevention and Emergency Spi	Ш
124		Response Plan.	
125			
126		8. Fugitive dust control, including dust fron	n
127		grinding, sweeping, or brooming off operations o	r
128		combination thereof.	
129			
130		9. Methods of storing and handling of oils, paints	S
131		and other products used for the project.	
132			
133		10. Material storage and handling areas, and othe	r
134		staging areas.	
135			
136		11. Concrete truck washouts.	
137			
138		12. Concrete waste control.	
139		40	
140		13. Fueling and maintenance of vehicles and othe	r
141		equipment.	
		580A-01-14	
		209-3a 2/10/14	4

143 144		14. and ex	Tracking of sediment offsite from project entries
145		and c	Allo.
146		15.	Litter management.
147			•
148		16.	Toilet facilities.
149			
150		17 .	Other factors that may cause water pollution,
151		dust a	nd erosion control.
152			
153	(b)	Provid	le plans indicating location of water pollution, dust
154	and er	osion c	control devices; provide plans and details of BMPs
155	to be ir	nstalle	d or utilized; show areas of soil disturbance in cut
156	and fil	l, indi	cate areas used for construction staging and
157	storage	e inclu	iding items (1) through (17) above, storage of
158			dicate type of aggregate), asphalt cold mix, soil or
159			equipment and vehicle parking, and show areas
160	where	vegeta	ative practices are to be implemented. Indicate
161			inage pattern on plans. Include flow arrows.
162			rate drawing for each phase of construction that
163			ge patterns. Indicate approximate date when
164	device	will be	e installed and removed.
165			
166	(c)	Consti	ruction schedule.
167			
168			(s) of specific individual(s) designated responsible
169			lution, dust, and erosion controls on the project
170			home, cellular, and business telephone numbers,
171	tax nur	nbers,	and e-mail addresses.
172			
173	(e)	Descri	ption of fill material to be used.
174		_	
175			ojects with an NPDES Permit for Construction
176			bmit information to address all sections in the
177	Storm	vvater	Pollution Prevention Plan (SWPPP).
178		_	NDDEO D
179			rojects with an NPDES Permit, information
180			compliance with the conditions of the Notice of
181	Genera	ai Pern	nit Coverage (NGPC)/NPDES Permit.
182	41.5	0:1 0	IS DIAD DO I OF THE FOREST
183			pecific BMP Review Checklist. The checklist may
184			ded from HDOT's Stormwater Management
185	website	e at ntt	p://stormwaterhawaii.com.
186		D-4-	nd sinn Cita Cossifia DMD Disas IV.
187			and sign Site-Specific BMP Plan. Keep accepted
188	copy of	ıı site C	or at an accessible location so that it can be made
			580A-01-14
			209-4a 2/10/14

available at the time of an on-site inspection or upon request by the Engineer, HDOT Third-Party Inspector, and/or DOH/EPA Representative. Amendments to the Site-Specific BMP Plan shall be included with original Site-Specific BMP Plan. Modify SWPPP if necessary to conform to revisions. Include date of installation and removal of Site-Specific BMP measures. Obtain written acceptance by the Engineer before implementing revised Site-Specific BMPs in the field.

Follow the guidelines in the current HDOT "Construction Best Management Practices Field Manual", in developing, installing, and maintaining Site-Specific BMPs for all projects. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, notify the Engineer immediately for interpretation. For the purposes of clarification "applicable bid documents" include the construction plans, standard specifications, special provisions, Permits, and the SWPPP when applicable.

Follow Honolulu's City and County "Rules for Soil Erosion Standards and Guidelines" for all projects on Oahu. Use respective Soil Erosion Guidelines for Maui, Kauai and Hawaii projects.

(B) Construction Requirements. Do not begin work until submittals detailed in Subsection 209.03(A)(2) - Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by the Engineer.

Install, maintain, monitor, repair and replace site-specific BMP measures, such as for water pollution, dust and erosion control; installation, monitoring, and operation of hydrotesting activities; removal and disposal of hazardous waste indicated on plans, concrete cutting slurry, concrete curing water; or hydrodemolition water. Site-Specific BMP measures shall be in place, functional and accepted by HDOT personnel prior to initiating any ground disturbing activities.

If necessary, furnish and install rain gage in a secure location prior to field work including installation of site-specific BMP. Provide rain gage with a tolerance of at least 0.05 inches of rainfall. Install rain gage on project site in an area that will not deter rainfall from entering the gate opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Maintain rain gage and replace rain gage that is stolen, does not function properly or accurately, is worn out, or needs to be relocated. Do not begin field work until rain gage is installed and Site-Specific BMPs are in place. Rain gage data logs shall be

readily available. Submit rain gage data logs weekly to the Engineer.

Address all comments received from the Engineer.

Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.

Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.

Limit maximum surface area of earth material exposed at any time to 300,000 square feet. Do not expose or disturb surface area of earth material (including clearing and grubbing) until BMP measures are installed and accepted in writing by the Engineer. Protect temporarily or permanently disturbed soil surface from rainfall impact, runoff and wind before end of the work day.

Immediately initiate stabilizing exposed soil areas upon completion of earth disturbing activities for areas permanently or temporarily ceased on any portion of the site. Earth-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site that will not include permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the site that will not include permanent structures will not resume for a period of 14 or more calendar days, but such activities will resume in the future. The term "immediately" is used in this section to define the deadline for initiating stabilization measures. "Immediately" means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased.

For projects with an NPDES Permit for Construction activities:

- 1) For construction areas discharging into waters not impaired for nutrients or sediments, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.
- 2) For construction areas discharging into nutrient or sediment impaired waters, complete initial stabilization within 7 calendar days after the temporary or permanent cessation of earth-disturbing activities.

For projects without an NPDES Permit for Construction activities, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

283	Any of the following types of activities constitutes initiation of
284	stabilization:
285	
286	(1) Prepping the soil for vegetative or non-vegetative stabilization;
287	
288	(2) Applying mulch or other non-vegetative product to the exposed
289	area;
290	
291	(3) Seeding or planting the exposed area;
292	
293	(4) Starting any of the activities in items $(1) - (3)$ above on a portion
294	of the area to be stabilized, but not on the entire area; and
295	
296	(5) Finalizing arrangements to have stabilization product fully installed
297	in compliance with the deadline for completing initial stabilization
298	activities.
299	
300	Any of the following types of activities constitutes completion of initial
301	stabilization activities:
302	
303	(1) For vegetative stabilization, all activities necessary to initially seed
304	or plant the area to be stabilized; and/or
305	
306	(2) For non-vegetative stabilization, the installation or application of all
307	such non-vegetative measures.
308	
309	If the Contractor is unable to meet the deadlines above due to
310	circumstances beyond the Contractor's control, and the Contractor is using
311	vegetative cover for temporary or permanent stabilization, the Contractor
312	may comply with the following stabilization deadlines instead as agreed to by
313	the Engineer:
314	
315	(1) Immediately initiate, and complete within the timeframe shown
316	above, the installation of temporary non-vegetative stabilization
317	measures to prevent erosion;
318	
319	(2) Complete all soil conditioning, seeding, watering or irrigation
320	installation, mulching, and other required activities related to the
321	planting and initial establishment of vegetation as soon as conditions
322	or circumstances allow it on the site; and
323	
324	(3) Notify and provide documentation to the Engineer the
325	circumstances that prevent the Contractor from meeting the deadlines
326	above for stabilization and the schedule the Contractor will follow for
327	initiating and completing initial stabilization and as agreed to by the
328	Engineer.
329	

330	Follow the applicable requirements of the specifications and special
331	provisions including Section 619 and Section 641.
332	
333	Immediately after seeding or planting the area to be vegetatively
334	stabilized, to the extent necessary to prevent erosion on the seeded or
335	planted area, select, design, and install non-vegetative erosion controls that
336	provide cover (e.g., mulch, rolled erosion control products) to the area while
337	vegetation is becoming established.
338	
339	Protect exposed or disturbed surface area with mulches, grass seeds
340	or hydromulch. Spray mulches at a rate of 2,000 pounds per acre. Add
341	tackifier to mix at a rate of 85 pounds per acre. Apply grass seeds at a rate
342	of 125 pounds per acre. For hydromulch, use the ingredients and rates
343	required for mulches and grass seeds. Submit recommendations from a
344	licensed Landscape Architect when deviating from the application rates
345	above.
346	
347	Apply fertilizer to mulches, grass seed or hydromulch per
348	manufacturer's recommendations. Submit recommendations from a licensed
349	Landscape Architect when deviating from the manufacturer's
350	recommendations.
351	recommendations.
352	Install velocity dissipation measures when exposing erodible surfaces
353	greater than 15 feet in height.
354	grouter than 10 look in height.
355	BMP measures shall be in place and operational at the end of work
356	day or as required by Section 209.03(B).
357	day of as required by essenting 200.00(b).
358	Install and maintain either or both stabilized construction entrances
359	and wheel washes to minimize tracking of dirt and mud onto roadways.
360	Restrict traffic to stabilized construction areas only. Clean dirt, mud, or other
361	material tracked onto the road, sidewalk, or other paved area by the end of
362	the same day in which the track-out occurs. Modify stabilized construction
363	entrances to prevent mud from being tracked onto road. Stabilize entire
364	access roads if necessary.
365	abocoo roddo ii ricocoodiy.
366	Chemicals may be used as soil stabilizers for either or both erosion
367	and dust control if acceptable to the Engineer.
368	and dast control if acceptable to the Engineer.
369	Provide temporary slope drains of rigid or flexible conduits to carry
370	runoff from cuts and embankments. Provide portable flume at the entrance.
370	Shorten or extend temporary slope drains to ensure proper function.
371	Shorten of extend temporary slope drains to ensure proper function.
373	Protect ditches, channels, and other drainageways leading asset from
374	Protect ditches, channels, and other drainageways leading away from
375	cuts and fills at all times by either:
	// Hudro mulching the leaves series of auch subsect 1 0
376	(1) Hydro-mulching the lower region of embankments in the

377	immediate area.
378	
379	(2) Installing check dams and siltation control devices.
380	
381	(3) Other methods acceptable to the Engineer.
382	
383	Provide for controlled discharge of waters impounded, directed, or
384	controlled by project activities or erosion control measures.
385	
386	Cover exposed surface of materials completely with tarpaulin or similar
387	device when transporting aggregate, soil, excavated material or material that
388	may be source of fugitive dust.
389	
390	Cleanup and remove any pollutant that can be attributed to the
391	Contractor.
392	
393	Install or modify Site-Specific BMP measures due to change in the
394	Contractor's means and methods, or for omitted condition that should have
395	been allowed for in the accepted Site-Specific BMP or a Site-Specific BMP
396	that replaces an accepted Site-Specific BMP that is not satisfactorily
397	performing. Modifications to Site-Specific BMP measures shall be accepted
398	in writing by the Engineer prior to implementation.
399	
400	Properly maintain all Site-Specific BMP measures.
401	
402	For projects with an NPDES Permit for Construction Activities:
403	
404	(1) For construction areas discharging into nutrient or sediment
405	impaired waters, inspect, prepare a written report, and make repairs to
406	BMP measures at the following intervals:
407	
408	(a) Weekly.
409	
410	(b) Within 24 hours of any rainfall of 0.25 inch or greater which
411	occurs in a 24-hour period.
412	, , , , , , , , , , , , , , , , , , ,
413	(c) When existing erosion control measures are damaged or
414	not operating properly as required by Site-Specific BMP.
415	not operating property as required by the operation
416	(2) For construction areas discharging to waters not impaired for
417	nutrients or sediments, inspect, prepare a written report, and make
418	repairs to BMP measures at the following intervals:
419	repairs to bivin Theasures at the following intervals.
420	(a) Weekly.
+20 421	(a) vveekiy.
+21 422	(h) When existing erosion central measures are demand as
+22 1 23	(b) When existing erosion control measures are damaged or not operating properly as required by Site-Specific BMP.
t∠J	not operating property as required by Site-Specific DIVIP.

For projects without an NPDES Permit for Construction activities, inspect, prepare a written report, and make repairs to BMP measures at the following intervals:

427 428 429

(a) Weekly.

430 431

(b) When existing erosion control measures are damaged or not operating properly as required by Site-Specific BMP.

432 433 434

435

Temporarily remove, replace or relocate any Site-Specific BMP that must be removed, replaced or relocated due to potential or actual flooding, or potential danger or damage to project or public.

436 437 438

Maintain records of inspections of Site-Specific BMP work. Keep continuous records for duration of the project. Submit copy of Inspection Report to the Engineer within 24 hours after each inspection.

440 441 442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461 462

463

464

465

466

467

468

469

470

439

The Contractor's designated representative specified in Subsection 209.03(A)(2)(d) shall address any Site-Specific BMP deficiencies brought up by the Engineer immediately, including weekends and holidays, and complete work to fix the deficiencies by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. Address any Site-Specific BMP deficiencies brought up by the State's Third-Party Inspector in the timeframe above or as specified in the Consent Decree or MS4 NPDES Permit, whichever is more stringent. The Consent Decree timeframe requirement applies statewide. The MS4 NPDES Permit only applies to Oahu. In this section, "immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day. When installation of a new pollution prevention control or a significant repair is needed, complete installation or repair no later than seven calendar days from the time of notification/Contractor discovery. Notify the Engineer and document why it is infeasible to complete the installation or repair within seven calendar days and complete the work as soon as practicable and as agreed to by the Engineer. Address Site-Specific BMP deficiencies discovered by the Contractor within the timeframe above. The Contractor's failure to satisfactorily address these Site-Specific BMP deficiencies, the Engineer reserves the right to employ outside assistance or use the Engineer's own labor forces to provide necessary corrective measures. The Engineer will charge the Contractor such incurred costs plus any associated project engineering costs. The Engineer will make appropriate deductions from the Contractor's monthly progress estimate. Failure to apply Site-Specific BMP measures may result in one or more of the following: assessment of

471	liquidated damages, suspension, or cancellation
472	Contractor being fully responsible for all addition
473	State.
474	
475	(C) Discharges of Storm Water Associa
476	Activities. If work includes disturbance of one a
477	Permit authorizing Discharges of Storm Water Ass
478	Activity (CWB-NOI Form C) or Individual Permit
479	discharges associated with construction activity
480	Department of Health Clean Water Branch (DOH
481	
482	Do not begin construction activities until all i
483	permit are met and submittals detailed in Subsect
484	Pollution, Dust, and Erosion Control Submittals are
485	in writing by the Engineer.
486	
487	(D) Discharges Associated with Hydro
488	hydrotesting activities require effluent discharg
489	drainage systems, an NPDES Hydrotesting Water
490	F) or Individual Permit authorizing discharges ass
491	from DOH-CWB is required from the DOH-CWB.
492	5 (1) 1 () () () ()
493	Do not begin hydrotesting activities until the
494	Individual NPDES Permit or Notice of General Pe
495	Conduct Hydrotesting operations in accordance w
496 497	permit or NGPC.
497 498	(E) Discharges Associated with David
49 6 499	(E) Discharges Associated with Dewa dewatering activities require effluent discharge into
500	systems, an NPDES Dewatering Permit (CWB-N
501	Permit authorizing discharges associated with dewa
502	required from the DOH-CWB.
503	required from the BOTI-OVVB.
504	Do not begin dewatering activities until the D
505	Individual NPDES Permit or Notice of General Pe
506	Conduct dewatering operations in accordance w
507	permit or NGPC.
508	F 2 5 5.
509	(F) Solid Waste. Submit the Solid Waste
510	Construction Sites to the Engineer within 30 ca
511	execution. Provide a copy of all the disposal r
512	permitted by the Department of Health to receive so

514 515

516 517

on of Contract with the nal costs incurred by the

ated with Construction acre or more, an NPDES ociated with Construction authorizing storm water ty is required from the -CWB).

required conditions of the tion 209.03(A)(2) – Water completed and accepted

otesting Activities. e into State waters or s Permit (CWB-NOI Form ociated with hydrotesting

DOH-CWB has issued an ermit Coverage (NGPC). vith the conditions of the

atering Activities. lf State waters or drainage OI Form G) or Individual atering from DOH-CWB is

DOH-CWB has issued an ermit Coverage (NGPC). ith the conditions of the

- e Disclosure Form for alendar days of contract eceipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed, or as directed by the Engineer.
- (G) Construction BMP Training. The Contractor's representative 580A-01-14 209-11a 2/10/14

518	responsible for development of the Site-Specific BMP Plan and			
519	implementation of Site-Specific BMPs in the field shall attend the State's			
520	Construction Best Management Practices Training. The Contractor shall			
521	keep training logs updated and readily available.			
522				
523	209.04 Measurement.			
524	(A) Installation resistance of the total CDAD (III)			
525	(A) Installation, maintenance, monitoring, and removal of BMP will be paid			
526	on a lump sum basis. Measurement for payment will not apply.			
527	(D) The Engineer will only recover additional water malleting dust and			
528	(B) The Engineer will only measure additional water pollution, dust and			
529	erosion control required and requested by the Engineer on a force account			
530 531	basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation.			
532	Compensation.			
533	209.05 Payment. The Engineer will pay for accepted pay items listed below at			
534	contract price per pay unit, as shown in the proposal schedule. Payment will be full			
535	compensation for work prescribed in this section and contract documents.			
536	compensation for work prescribed in this section and contract documents.			
537	The Engineer will pay for each of the following pay items when included in			
538	proposal schedule:			
539	proposal constant.			
540	Pay Item Pay Unit			
541	,,			
542	Installation, Maintenance, Monitoring, and Removal of BMP Lump Sum			
543				
544	Additional Water Pollution, Dust, and Erosion Control Force Account			
545				
546	An estimated amount for force account is allocated in proposal schedule			
547	under 'Additional Water Pollution, Dust, and Erosion Control', but actual amount to			
548	be paid will be the sum shown on accepted force account records, whether this sum			
549	be more or less than estimated amount allocated in proposal schedule. The			
550	Engineer will pay for BMP measures requested by the Engineer that are beyond			
551	scope of accepted Site-Specific BMP on a force account basis.			
552	N			
553	No progress payment will be authorized until the Engineer accepts in writing			
554	Site-Specific BMP or when the Contractor fails to maintain project site in accordance			
555	with accepted BMP.			
556	For all aitations on fines received by the Development for the			
557 558	For all citations or fines received by the Department for non-compliance, including compliance with NDDES Permit conditions, the Contractor shall reimburge			
558 559	including compliance with NPDES Permit conditions, the Contractor shall reimburse			
560	State within 30 calendar days for full amount of outstanding cost State has incurred, or the Engineer will deduct cost from progress payment.			
561	of the Engineer will deduct cost from progress payment.			
JU1				

The Engineer will assess liquidated damages up to \$27,500 per day for non-compliance of each BMP requirement and all other requirements in this section.

Appendix A

The following list identifies potential pollutant sources and corresponding BMPs used to mitigate the pollutants. Each BMP is referenced to the corresponding section of the current HDOT Construction Best Management Practices Field Manual or appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at http://www.stormwaterhawaii.com/resources under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at http://stormwaterhawaii.com/contractors/contractors/BMPmanual.aspx under Concrete Curing and Irrigation Water.

Dollutont	Annual vista Cita Constilla DMD to be	DMD
Pollutant	Appropriate Site-Specific BMP to be	BMP
Source	Implemented	Requirements
Construction debris, green waste, general litter	 Separate contaminated clean up materials from construction and demolition (C&D) wastes. Provide waste containers (e.g., dumpster or trash receptacle) of sufficient size and number to contain construction and domestic wastes. Inspect construction waste and recycling areas regularly. Schedule solid waste collection regularly. 	See Solid Waste Management Section SM-6. Protect Storm Drain Inlets SC-2, and Perimeter Sediment Controls where applicable.
	Schedule recycling activities based on construction/demolition phases.	
	Empty waste containers weekly or when they are two-thirds full, whichever is sooner.	
	 Do not allow containers to overflow. Clean up immediately if they do. 	
	 On work days, clean up and dispose of waste in designated waste containers. 	
	 See Solid Waste Management Section SM-6 for additional requirements. 	
	 Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable. 	
Materials associated with the operation and maintenance of equipment, such as oil, fuel, and hydraulic fluid leakage	 Use off-site wash racks, repair and maintenance facilities, and fueling sites when practical. Designate bermed wash area if cleaning on site is necessary. Place drip pans or drop cloths under vehicles and equipment to absorb spills or leaks. Provide an ample supply of 	See Vehicle and Equipment Cleaning, Maintenance, and Refueling, Sections SM-11, SM-12, and SM- 13, and Material
	readily available spill cleanup materials. Clean up spills immediately,	Delivery, Storage and Material Use

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
	 using dry clean-up methods where possible, and dispose of used materials properly. Do not clean surfaces or spills by hosing the area down. Eliminate the source of the spill to 	Sections SM-2 and SM-3, and Spill Prevention and Control SM- 10.
	prevent a discharge or a continuation of an ongoing discharge.	
	 Inspect on-site vehicles and equipment regularly and immediately repair leaks. 	
·	 Regularly inspect fueling areas and storage tanks. 	
	 Train employees on proper maintenance and spill practices and procedures and fueling and cleanup procedures. 	
	 Store diesel fuel, oil, hydraulic fluid, or other petroleum products or other chemicals in water-tight containers and provide cover or secondary containment. 	
	 Do not remove original product labels and comply with manufacturer's labels for proper disposal. 	
	Dispose of containers only after all the product has been used.	
	Dispose of or recycle oil or oily wastes according to Federal, State, and Local requirements.	
	Store soaps, detergents, or solvents under cover or other means to prevent contact with rainwater.	
	See Vehicle and Equipment	
	Cleaning, Maintenance, and	
	Refueling, Sections SM-11, SM-12, and SM-13 and Material Use Section	
	SM-3 for additional requirements.	

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
Soil erosion from the disturbed areas	 Provide Soil Stabilization, Slope Protection, Storm Drain Inlet Protection SC-2, Perimeter Controls and Sediment Barriers, Sediment Basins and Detention Ponds, Check Dams SC-9, Level Spreader SC-10, Paving Operations SM-19, Construction Road Stabilization EC- 1, Controlling Storm Water Flowing Onto and Through the Project, Post- 	Soil Stabilization 1. SM-21 Topsoil Management 2. EC-5 Seeding and Planting 3. EC-6 Mulching 4. EC-7 Geotextiles and Mats
	Construction BMPs, and Non- Structural BMPs (Employee Training SM-1, Scheduling SM-14, Location of Potential Sources of Sediment SM-15, Preservation of Existing Vegetation SM-16). • Delineate, and clearly mark off, with flags, tape, or other similar marking device all natural buffer areas defined in the SWPPP. • Preserve native topsoil where practicable.	Slope Protection 1. EC-5 Seeding and Planting 2. EC-6 Mulching 3. EC-7 Geotextiles and Mats 4. EC-9 Slope Roughening, Terracing, and Rounding 5. SC-11 Slope Drains and Subsurface
	 In areas where vegetative stabilization will occur, restrict vehicle/equipment use in areas to avoid soil compaction or condition soil to promote vegetative growth. For Storm Drain Inlet Protection, clean, or remove and replace, the 	Drains 6. SC-12 Top and Toe of Slope Diversion Ditches and Berms SC-2 Storm Drain
	protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. • Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove	Perimeter Controls and Sediment Barriers 1. SC-1 Silt Fence 2. SC-5

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
		 EC-8 Run-On Diversion SC-6 Earth Dike SC-7 Temporary Drains and Swales
	590A 04 4A	

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
		Post Construction BMPs 1. EC-4 Flared Culvert End Sections 2. SC-3 Rip-Rap and Gabion Inflow Protection 3. SC-4 Outlet Protection and Velocity Dissipation Devices 4. SM-21 Topsoil Management Non-Structural BMPs
		 SM-1 Employee Training SM-14 Scheduling SM-15 Location of Potential Sources of Sediment SM-16 Preservation of Existing Vegetation
Sediment from soil stockpiles	Locate stockpiles a minimum of 50 feet or as far as practicable from	See Protection of Stockpiles Section
,	concentrated runoff or outside of any natural buffers identified on the SWPPP.	SM-4. Protect Storm Drain Inlets
	Place bagged materials on	SC-2, and

Pollutant	Appropriate Site-Specific BMP to be	BMP
Source	Implemented	Requirements
	pallets and under cover.	Perimeter
	Provide physical diversion to	Sediment Controls
	protect stockpiles from concentrated runoff.	where applicable.
	 Cover stockpiles with plastic or comparable material when practicable. 	
	Place silt fence, fiber filtration tubes, or straw wattles around stockpiles.	
	Do not hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any storm water conveyance (unless connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet, or state water.	
	Unless infeasible, contain and securely protect stockpiles from the wind.	
	 Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable. 	
	See Protection of Stockpiles	
	Section SM-4 for additional	
	requirements.	

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
Emulsified asphalt or prime/tack coat	 Provide training for employees and contractors on proper material delivery and storage practices and procedures. Restrict paving operations during wet weather to prevent paving materials from being discharged. Use asphalt emulsions such as prime coat when possible. Protect drain inlet structures and manholes during application of tack coat, seal coat, slurry seal, and fog seal. Keep ample supplies of drip pans and absorbent materials on site. Inspect inlet protection devices. See Material Delivery and Storage Section SM-2 and Paving Operations Section SM-19 for additional requirements. Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable. 	See Material Delivery and Storage Section SM-2 and Material Use Section SM- 3, Paving Operations Section SM-19, Protect Storm Drain Inlets SC-2, and Perimeter Sediment Controls where applicable.
Materials associated with painting, such as paint and paint wash solvent	 Hazardous chemicals shall be well-labeled and stored in original containers. Keep ample supply of cleanup materials on site. Dispose container only after all of the product has been used. Remove as much paint from brushes on painted surface. Rinse from water-based paints shall be discharged into the sanitary sewer system where possible. If not, direct all washwater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation. Locate on-site wash area a 	See Material Delivery and Storage Section SM-2, Material Use Section SM-3, Hazardous Waste Management Section SM-9, Waste Management, Spill Prevention and Control Section SM-10, and Structure

Pollutant	Appropriate Site-Specific BMP to be	BMP
Source	Implemented	Requirements
	 minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies. Do not dump liquid wastes into the storm drainage system. Filter and re-use solvents and thinners. Dispose of oil-based paints and residue as a hazardous waste. Ensure collection, removal, and disposal of hazardous waste complies with regulations. Immediately clean up spills and leaks. Properly store paints, solvents, and epoxy compounds. Properly store and dispose waste materials generated from painting 	Requirements Construction and Painting Section SM-20, Protect Storm Drain Inlets SC-2, and Perimeter Sediment Controls where applicable.
	 and structure repair and construction activities. Mix paints in a covered and contained area when possible to minimize adverse impacts from spills. 	
	Do not apply traffic paint or	
	 thermoplastic if rain is forecasted. See Material Delivery and Storage Section SM-2, Material Use SM-3, Waste Management, Hazardous Waste Management Section SM-9, Waste Management, Spill Prevention and Control Section SM-10, and Structure Construction and Painting Section SM-20 for additional requirements. 	
	 Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable. 	

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
Industrial chemicals, fertilizers, and/or pesticides	 Hazardous chemicals shall be well-labeled and stored in original containers. Keep ample supply of cleanup materials on site. Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. Do not clean surfaces or spills by hosing the area down. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge. Dispose container only after all of the product has been used. Retain a complete set of material safety data sheets on site. Store industrial chemicals in water-tight containers and provide either cover or secondary containment. Provide cover when storing fertilizers or pesticides to prevent these chemicals from coming into contact with rainwater. Restrict amount of pesticide prepared to quantity necessary for the current application. Do not apply fertilizers or pesticides during or just before a rain event. Do not apply to stormwater conveyance channels with flowing water. Comply with fertilizer and pesticide manufacturer's recommended usage instructions. Follow federal, state, and local laws regarding fertilizer application. Do not dispose of toxic liquid wastes (solvents, used oils, and paints) or chemicals (additives, 	See Material Delivery and Storage Section SM-2, Material Use Section SM-3, and Hazardous Waste Management Section SM-9, and Spill Prevention and Control SM-10

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
	 acids, and curing compounds) in dumpsters allocated for construction debris. Ensure collection, removal, and disposal of hazardous waste complies with regulations. Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler. See Material Delivery and Storage Section SM2, Material Use SM-3, and Waste Management, Hazardous Waste Management Section SM-9 for additional requirements. 	
Hazardous waste (Batteries, Solvents, Treated Lumber, etc.)	 Do not dispose of toxic materials in dumpsters allocated for construction debris. Ensure collection, removal, and disposal of hazardous waste complies with regulations. Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler. 	See Hazardous Waste Management Section SM-9 and Vehicle and Equipment Maintenance SM-
	 Segregate and recycle wastes from vehicle/equipment maintenance activities such as used oil or oil filters, greases, cleaning solutions, antifreeze, automotive batteries, and hydraulic and transmission fluids. Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, 	
	state, and local requirements.	

Pollutant	Appropriate Site-Specific BMP to be	BMP
Source	Implemented	Requirements
	be kept away from surface waters and within appropriately-sized secondary containment (e.g., spill berms, decks, spill containment pallets). Provide cover if possible.	
	Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.	
	Do not clean surfaces or spills by hosing the area down.	
	Eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.	
	Ensure collection, removal, and disposal of hazardous waste complies with manufacturer's recommendations and is in compliance with federal, state, and local requirements.	
	See Hazardous Waste Management Section SM-9 and Vehicle and Equipment Management, Vehicle and Equipment Maintenance SM-12 for additional requirements.	

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
Metals and Building Materials	 Inspect construction waste and recycling areas regularly. Schedule solid waste collection regularly. If building materials or metals are stored on site (such as rebar or galvanized poles) store under cover under tarps or in containers. Minimize the amount of material stored on site. Do not stockpile uncovered 	See Solid Waste Management Section SM-6
	metals or other building materials in close proximity to discharge points. See Solid Waste Management	·
	Section SM-6 for additional requirements.	
Contaminated Soil	 See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Waste Management Section SM-9 for additional requirements. 	See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Waste Management Section SM-9
	 At minimum contain contaminated material soil by surrounding with impermeable lined berms or cover exposed contaminated material with plastic sheets. 	
Dust Control Water	 Do not over spray water for dust control purposes which will result in runoff from the area. 	See Dust Control Section SM-18
	 Apply water as conditions require. 	
	 Washing down of debris or dirt into drainage, sewage systems, or State waters is not allowed. 	
	See Dust Control Section SM-18 for additional requirements.	

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
Concrete Truck	Disposal of concrete truck wash	
Wash Water	water via percolation is prohibited.	See Waste Management,
	Wash concrete-coated vehicles or equipment off-site or in the designated wash area.	Concrete Waste Management Section SM-5
	 Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies. 	
	Runoff from the on-site concrete wash area shall be contained in a temporary pit or level bermed area where the concrete can set.	
	Design the area so that no overflow can occur due to inadequate wash area sizing or precipitation.	
	The temporary pit shall be lined with plastic to prevent seepage of wash water into the ground.	
	Allow wash water to evaporate or collect wash water and all concrete debris in a concrete washout system bin.	
	Do not dump liquid wastes into storm drainage system.	
	Dispose of liquid and solid concrete wastes in compliance with federal, state, and local standards.	
	See Waste Management, Concrete Waste Management Section SM-5 for additional requirements.	

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
Sediment Track- Out	 Include Stabilized Construction Entrance at all points that exit onto paved roads. A sediment trapping device is required if a wash rack is used in conjunction with the stabilized construction entrance/exit. 	See Stabilized Construction Entrance Section EC-2
	The pavement shall not be cleaned by washing down the street.	
	If sweeping is ineffective or it is necessary to wash the streets, wash water must be contained either by construction of a sump, diverting the water to an acceptable disposal area, or vacuuming the wash water.	
	Use BMPs for adjacent drainage structures.	
	Remove sediment tracked onto the street by the end of the day in which the track-out occurs.	
	Restrict vehicle use to properly designated exit points.	
	Include additional BMPs which remove sediment prior to exit when minimum dimensions can not be met.	
	See Stabilized Construction Entrance Section EC-2 for additional requirements.	·
Irrigation Water	Consider irrigation requirements.	See Seeding and
	Where possible, avoid species which require irrigation.	Planting Section EC-5 and California
	Design timing and application	Stormwater BMP

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
	methods of irrigation water to eliminate the runoff of excess irrigation water into the storm water drainage system.	Handbook SD-12 Efficient Irrigation
	See Seeding and Planting Section EC-5 and California Stormwater BMP Handbook SD-12 Efficient Irrigation at http://stormwaterhawaii.com/contract ors/ contractors_BMPmanual.aspx under Irrigation Water for additional requirements.	

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
Hydrotesting Effluent	If work includes removing, relocation or installing waterlines, and Contractor elects to flush waterline or discharge hydrotesting effluent into State waters or drainage systems, the Contractor shall prepare and obtain HDOT acceptance of a NOI/NPDES Permit Form F application for HDOT submittal to DOH CWB at least 30 calendar days prior to the start of Hydrotesting Activities if necessary. Site-Specific BMPs will be included in the NOI/NPDES Permit Form F submittal.	Site-Specific BMPs will be included in the NOI/NPDES Permit Form F submittal.
Dewatering Effluent	• If excavation or backfilling operations require dewatering, and Contractor elects to discharge dewatering effluent into State waters or existing drainage systems, Contractor shall prepare and obtain HDOT acceptance of a NOI/NPDES Permit Form G application for HDOT submittal to DOH CWB at least 30 calendar days prior to the start of Dewatering Activities if necessary. See Site Planning and General Practices, Dewatering Operations Section SM-17 for additional requirements.	See Dewatering Operations SM- 17. Site-Specific BMPs will be included in the NOI/NPDES Permit Form G submittal.
Saw-cutting Slurry	 Saw cut slurry shall be removed from the site by vacuuming. Provide storm drain protection during saw cutting. See Paving Operations Section SM-19 for 	See Paving Operations Section SM-19, Storm Drain Inlet Protection SC-2,

Pollutant	Appropriate Site-Specific BMP to be	ВМР
Source	Implemented	Requirements
	 additional requirements. Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable. 	Perimeter sediment controls where applicable
Concrete Curing Water	 Avoid overspraying of curing compounds. Apply an amount of compound that covers the surface, but does not allow any runoff of the compound. 	See California Stormwater BMP Handbook NS-12 Concrete Curing
	See California Stormwater BMP Handbook NS-12 Concrete Curing at http://stormwaterhawaii.com/contract ors/ contractors_BMPmanual.aspx under Concrete Curing for additional requirements.	
Plaster Waste Water	Direct all washwater into a leak- proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation.	See Material Delivery and Storage Section SM-2, Material Use Section SM- 3, and Hazardous
	Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies.	Waste Management Section SM-9
	Any significant residual materials remaining on the ground after the completion of construction shall be removed and properly disposed. If the residual materials contaminate the soil, then the contaminated soil shall also be removed and properly disposed of.	
	Plaster waste water shall not be	

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Paguiramento
Source	allowed to flow into drainage	Requirements
	structures or State waters.	
	 See Material Delivery and Storage Section SM-2, Material Use SM-3, and Hazardous Waste Management Section SM-9 for additional requirements. 	
Water-Jet Wash Water	For Water-Jet Wash Water used to clean vehicles, use off site wash racks or commercial washing	See Vehicle and Equipment Cleaning Section
	 facilities when practical. See Vehicle and Equipment Cleaning Section SM-11 for additional information. 	SM-11
	For Water-Jet Wash Water used to clean impervious surfaces, the runoff shall not be allowed to flow into drainage structures or State Waters.	
Sanitary/Septic Waste	 Locate Sanitary facilities in a convenient place away from drainage facilities. 	See Sanitary/Septic Waste Section
	Position sanitary facilities so they are secure and will not be tipped over or knocked down.	SM-7.
	Wastewater shall not be discharged to the ground or buried.	
	 A licensed service provider shall maintain sanitary/septic facilities in good working order. 	
	Schedule regular waste collection by a licensed transporter.	
	 See Sanitary/Septic Waste Section SM-7 for additional requirements. 	

END OF SECTION 209