ENGINEERING SERVICES, INC

Jee: Haynes Poultry Farm - 2016 (Bradley)

651 East 4th Street, Suite 407 • Chattanooga, TN 37403 • phone: (423) 266-3501 • fax: (423) 266-3286

TNR112835

Project Transmittal Sheet

Γο: <u>IDEC</u> 1301 Riv	erfront Park	way	Date:	<u>January 26, 2016</u>
Suite #2	<u>06</u>		Project Name:	Haynes Poultry Farm
Cnattano	oga, TN 374	02	ADES Job Number:	15213
Phone No.:	(423) 634-57	<u>45</u>	From:	William Martin
We are com			V	(100NF)
You Pick	nding you via	US Mail		1 Othor
☐ Tod Pick	_	Courier	Fedex	Outer
The followi	ing:			
☐ Letter		Invoice	☐ Specifications	Request for Proposal
☐ Change	Order [Permit Application	□ Drawings (originals)	☐ Drawings (copies)
☐ Contract	t [Computer Disk	☐ Shop Dwg/Submittals	☐ Certificate of Payment
☐ Request	for Proposal	,		
Which is:				
For You	r Approval	For Your U	se 🔲 As Req	uested
☐ For You	r Information	☐ Sign and R	eturn to ADES	and Resubmit
Approve	d as Noted	☐ Marked Ta	ke No Action	ur Review and Comment
Description	n:			
Date	No.	Title		
01/25/16	1	Haynes Poultry I	Farm Plans	
01/25/16	1	Haynes Poultry I	Farm SWPPP	a coenco
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Notes: The check to cover the permit fee, the signed SWPPP certification page and the signed NOI should be on the way. We will forward these to your office once we receive it from the property owner.

Copy:

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INEERING Jes: Hagnes foultry
ICES, INC. Farm -2016

Bradley

651 East 4th Street, Suite 407 • Chattanooga, TN 37403 • phone: (423) 266-3501 • fax: (423) 266-3286

Project Transmittal Sheet

To	: TDEC 1301 Riv	erfront Park	way	Date:	February 05, 2016
	Suite #2	<u>06</u>		Project Name:	Haynes Poultry Farm
	Chattano	oga, TN 3740	<u>02</u>	ADES Job Nun	nber: <u>15213</u>
Ph	one No.:	(423) 634-574	<u>15</u>	From:	William Martin
	☐ You Pick ☐ Hand De The followi ☐ Letter ☐ Change ☐ Contract ☐ Request Which is: ☐ For Your ☐ For Your	elivery [US Mail Courier Invoice Permit Application Computer Disk For Your Us	eturn to ADES	ttals Certificate of Payment
ì	Description				
	Date	No.	Title		
	02/05/16	1	Haynes Poultry F	am NOI	
	02/05/16	1	Haynes Poultry F	arm SWPPP Certification	n Page
	02/05/16	1	\$1000.00 Check	for Permit Fee	
		ese are the or ny questions.		ges to be included to	the SWPPP for this project. Please call if RECEIVED FEB 05 *16
					(FIDU J IN



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION **ENVIRONMENTAL FIELD OFFICE**

State Office Building, Suite 550 540 McCallie AvenueChattanooga, TN 37402

(423)634-5745 STATEWIDE 1-888-891-8332 (423)634-6389

Receipt: EAC-CH-2896

Date of Receipt: 05-Feb-2016 11:33 am

Created By: Karen May (BG55008)

County: Bradley

EFO/Office: Chattanooga Field Office

Received From: Tom S Haynes

Company/Affiliation:

Recipient Address: 169 Shannon Rd

OLDFORT, TN-37362

Amount Received:

\$1,000.00

Method of Payment: CHECK

Check Number: 1418

Comments: NOI-Haynes Poultry Farm

TNR112835

Division	Description	TDEC Code	Quantity	Unit Price	Line Total
WPC	WPC-NOI \$1000 Permit Application	43.340.F02	1	\$1,000.00	\$1,000.00

Receipt Total:

\$1,000.00

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Storm Water Pollution Prevention Plan (SWPPP)

For

Haynes Poultry Farm 266 Branam Road SE Bradley County, TN

Prepared For:

Tom Haynes 2441 Canterbury Chase Murfreesboro, TN 37128 (423) 790-9507

Prepared By:



651 E. 4th Street, Suite 407 Chattanooga, TN 37403 ADES Project Number: 15213

January 25, 2016

Estimated Project Dates:

Start of Construction: February 2016 Completion of Construction: February 2017

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	x C – BMP Specifications and Details x D – Site Soil Survey	
whhenm	a D – Site Soft Survey	

ATTACHMENTS

C1.0	Existing Conditions & Demo Plan
C2.0	Site Plan
C3.0	Grading & Drainage Plan
C4.0	Erosion & Sediment Control Plan Phase 1
C4.1	Erosion & Sediment Control Plan Phase 2
C4.2	Erosion & Sediment Control Plan Phase 3
C4.3	Grading & Erosion Control Details
C5.0	Project Notes

STORM WATER CERTIFICATION PAGE

Project: Haynes Poultry Farm, Bradley County, TN

Owner Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Tom Haynes	Jom Haines	1-26-16
Representative of owner/developer, print or type	Signature	Date
Address: 266 Branam Road SE, Old Fort,	TN 37362	Phone: <u>(423)</u> 790-9507
Contractor Certification:		
I certify under penalty of law that I have referenced above. Based on my inquiry my inquiry of the person directly responsinformation submitted is accurate. I am a construction activity subject to the NPDE regulated. I am aware that there are sign imprisonment for knowing violations, and	of the construction site ownersible for assembling this NO aware that this NOI, if approes permit and that certain of inficant penalties, including the control of the cont	er/developer identified above and/or I and SWPPP, I believe the ved, makes the above-described my activities onsite are thereby he possibility of fine and
Primary contractor, print or type	Signature	Date
Address	Pho	ne:
I certify under penalty of law that I have reviewed to inquiry of the construction site owner/developer identifies NOI and SWPPP, I believe the information subdescribed construction activity subject to the NPDI aware that there are significant penalties, including comply with these permit requirements.	entified above and/or my inquiry of bmitted is accurate. I am aware tha ES permit and that certain of my ac	the person directly responsible for assembling t this NOI, if approved, makes the above- tivities onsite are thereby regulated. I am
Other contractor, print or type	Signature	Date
Address:		Phone:

		a	
2			
3			
	φ.		

Subcontractor(s):

None at this time

Emergency 24 hour contact:

Tom Haynes 2441 Canterbury Chase Murfreesboro, TN 37128 (423) 790-9507

1.3 Nature and Sequence of Construction Activity

This Stormwater Pollution Prevention Plan (SWPPP) will address the erosion and sediment control BMPs required for this construction of new chicken houses. The total disturbed area is approximately 13.07 acres. The construction will consist of six new chicken houses. This will include clearing and grading the site to create level pads for the buildings and gravel drives for access to the buildings.

The order of activities for this SWPPP will be as follows:

- 1. Post NOC in a prominent display near the entrance to the site.
- 2. Install rain gauge on site.
- 3. Install stabilized construction exit on site.
- 4. Install silt fencing and sediment traps as indicated on the Erosion & Sediment Control Plans.
- 5. Clear and grade site for preparation of building pads and drives. Vegetation shall not be disturbed more than 15 days prior to any excavating activities. Contractor should maintain a maximum slope of 3:1 except in locations noted on the plans. In no locations should slopes exceed 2:1.
- 6. Seed/straw for permanent stabilization.
- 7. When all construction activity is complete and the site is stabilized, remove silt fences.
- 8. Prepare and submit NOT to the State of Tennessee Environmental Protection Division once the construction activities are complete and final stabilization of the site is in place.

What is the functio	n of the construction a	ctivity?	
Residential		Industrial	Road Construction
Linear Utility			
☐ Other (please sp	ecify):		
Estimated Project S	Start Date:	February 2016	
Estimated Project C	Completion Date:	February 2017	

1.4 Soils, Slopes, Vegetation, and Current Drainage Patterns

Soil type(s):

Ab - Apison silt loam, eroded rolling phase, - USDA

Ac - Apison silt loam, eroded undulating phase, - USDA

Co - Cotaco silt loam, - USDA

La - Leadvale silt loam, eroded rolling phase, - USDA

Lb - Leadvale silt loam, eroded undulating phase, - USDA

Lc - Leadvale silt loam, undulating phase, - USDA

Lm - Litz shaly silt loam, eroded hilly phase, - USDA

Ln - Litz shaly silt loam, eroded rolling phase, - USDA

Lo - Litz shaly silt loam, eroded undulating phase, - USDA

Se - Sequoia silty clay loam, eroded rolling phase, - USDA

Sf - Sequoia silty clay loam, eroded undulating phase, - USDA

A copy of the soil map is included in Appendix D

Slopes:

The site is moderately sloped.

Drainage Patterns:

Site stormwater runoff drains to Carson Creek.

Vegetation:

Site vegetation is grassed pasture.

Other:

There is no known historical contamination.

1.5 Construction Site Estimates

The following are estimates of the construction site:

Construction Site Area to be disturbed $13.07 \pm acres$

Total Project Area 37.35 + acres

Percentage of impervious area before construction 0.00 %

SCS Curve Number before construction 74

Percentage of impervious area after construction 20.46%

SCS Curve Number after construction 79

1.6 Receiving Waters

Description of receiving waters: Carson Creek

Description of storm sewer systems: Not applicable

Description of impaired waters or waters subject to TMDLs: <u>Carson Creek is not 303(d) listed</u> for siltation.

1.7 Potential Sources of Pollution

The primary potential source of storm water pollution from this project site will be erosion of exposed soils entraining sediment in storm water runoff. Best management practices have been designed to 1) prevent erosion from occurring as well as 2) remove sediment from storm water in the event that erosion occurs.

Other potential pollutants include petroleum products and refuse that may be generated during site construction activities. The site contractor will be required to prevent escape of these pollutants and immediately clean up any observed spill or litter.

1.8 Maps

Full size 24x36 project sheets and information included are as follows:

- C1.0 Existing Conditions & Demo Plan
- C2.0 Site Plan
- C3.0 Grading & Drainage Plan
- C4.0 Erosion & Sediment Control Plan Phase 1
- C4.1 Erosion & Sediment Control Plan Phase 2
- C4.2 Erosion & Sediment Control Plan Phase 3
- C4.3 Grading & Erosion Control Details
- C5.0 Project Notes

SECTION 2: EROSION AND SEDIMENT CONTROL BMPS

This Storm Water Pollution Prevention Plan (SWPPP) is developed in accordance with the Tennessee General NPDES Permit (TNR100000) for Storm Water Discharges Associated with Construction Activity (TNCGP), and is prepared using sound engineering practices. As such, the following Best Management Practices (BMPs) shall be utilized as specified below.

2.1 Minimize Disturbed Area and Protect Natural Features and Soil

Erosion and Sediment Controls – General Requirements

- 1. Erosion prevention and sediment controls used at the site are designed to control storm runoff generated by a 2-year, 24-hour storm event.
- 2. Perimeter erosion control measures shall be installed prior to any work on the site. These include silt fencing and construction exit.
- 3. All control measures must be properly installed and maintained in accordance with the manufacturer's specifications and good engineering practices.

- 4. If sediment escapes the construction site, the contractor shall remove the accumulated sediment and restore the off-site area to a clean, sediment free condition.
- 5. Sediment should be removed from silt fences and other sediment controls as necessary to maintain these devices in a functional state. Sediment must be removed when the design capacity of the device is reduced by 50%.
- 6. Litter, construction debris, and construction chemicals exposed to storm water shall be picked up on a regular basis and the site shall be thoroughly cleaned of such items prior to any anticipated storm events.
- 7. Work shall be sequenced to minimize the exposure time of bare soil areas.
- 8. Erosion and sediment control measures must be in place and functional before earth moving operations begin, and must be maintained throughout construction. Temporary measures may be removed at the beginning of the workday but must be replaced at the end of the workday.
- 9. The following records shall be maintained on the site: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; and the dates when stabilization measures are initiated.

Erosion and Sediment Controls – Stabilization Practices

- 1. Only those areas within the indicated limits of construction shall be disturbed during stabilization activities.
- 2. Temporary stabilization measures include the following items, which are noted on the plans: silt fence, temporary seeding, and mulching.
- 3. Permanent stabilization measures include permanent seeding and mulching.
- 4. Erosion control measures shall be initiated as soon as practical in portions of the site where stabilization activities have temporarily or permanently ceased, but in no case more than fourteen days after the activity in that portion of the site has temporarily or permanently ceased. Where activity is temporarily ceased in the affected area, and earth-disturbing activities will resume within 14 days, temporary stabilization measures do not have to be initiated in that area.
- 5. Temporary or permanent soil stabilization shall be accomplished within 15 days after final grading or other earthwork. Permanent stabilization with perennial grasses shall replace any temporary measures as soon as practical.

Erosion and Sediment Control – Structural Practices

- 1. The proposed plans include the implementation of the following structural practices:
 - a. Construction Exit

- b. Silt Fence
- c. Check Dams
- d. Filter Ring
- e. Outlet Protection
- f. Construction Road Stabilization
- g. Concrete Truck Washout
- 2. A stabilized construction exit has been provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the site entrance shall be swept to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with tarpaulins.

2.2 Establish Stabilized Construction Exits

CE – Construction Entrance/Exit:

- The construction exit will consist of a minimum pad size of 20 ft by 50 ft with a 6" thick stone placed as shown on the plan. The stone size should consist of course aggregate between 1-1/2" & 3-1/2" in diameter and overlaid on a geotextile underliner. The geotextile underliner shall meet the requirements of AASHTO M288-96, section 7.3 separation requirements.
- Installation Schedule: Prior to any other construction. A stabilized construction entrance shall be constructed at each point of entry to or exit from the site or onto any public right of way.
- Maintenance and Inspection: The construction exit shall be maintained in a condition that will prevent track or flow of mud onto public right-of-way. This may require periodic top dressing with 1-3" of stone. As conditions demand, all materials spilled, dropped, washed, or tracked from vehicle onto public roadway or into storm drain must be removed immediately.

Responsible Staff: PRIMARY CONTRACTOR

2.3 Establish perimeter controls and sediment barriers

SF- Silt Fence:

- The silt fence should be kept erect at all times and repaired when requested by the site inspector or the project design professional of record.
- Installation Schedule: The silt fence is considered to be an initial erosion control measure and shall be implemented prior to any other construction activity.
- Maintenance and Inspection: The perimeter silt fence should be inspected daily for any failures. Any failures of said fencing should be repaired immediately. Silt should be removed when accumulation reaches 1/2 height of the barrier. The silt fence shall be maintained until permanent ground cover is established on the slope.

Responsible Staff: PRIMARY CONTRACTOR

CW-Concrete Truck Washout

• Site-built washouts should be constructed by providing a temporary pit or bermed area sized large enough to handle solids, wash slurry, and rainfall to prevent overflow and include a minimum of 4" freeboard. Above-grade washouts should allow adequate at least 4" of freeboard for structural stability of berms or containment walls. The temporary pit containing dry waste concrete may be incorporated into fill areas as needed. The waste concrete may be broken into smaller pieces to allow proper soil compaction. The storage area should be lined with geotextile fabric to allow water to infiltrate, further aiding the dewatering and drying process.

Responsible Staff: PRIMARY CONTRACTOR

CD - Check Dams

 Riprap check dams shall be installed in locations of concentrated flow along the proposed grass swales. The approximate location of these check dams are indicated on the attached Drawing C4.1, Erosion & Sediment Control Plan Phase 2. The check dams should be maintained according to the BMP specifications and details outlined in Appendix E.

Responsible Staff: PRIMARY CONTRACTOR

2.4 Stabilize Soils

TS - Temporary Seeding:

- Installation Schedule: This measure will be applicable in all Phases of the project. All drainage swales and graded areas shall be applied with vegetative cover as soon as final grade is achieved. All roadway and parking shoulders should be applied with vegetative cover as soon as final grade is achieved. Mulch or temporary grassing shall be applied to all exposed areas within 14 days of land disturbance. All disturbed areas left mulched after 30 days shall be stabilized with temporary grassing.
- Maintenance and Inspection: Contractor shall inspect control measures at the end of each
 working day to ensure measures are functioning properly. Sediment and erosion control
 measures should be checked after each rain event.

Responsible Staff: PRIMARY CONTRACTOR

PS – Permanent Seeding:

• Installation Schedule: Permanent seeding shall be installed as soon as final grading is achieved and topsoil is applied. All roadway and parking shoulders should be applied with vegetative cover as soon as final grade is achieved. Mulch or temporary grassing shall be applied to all exposed areas within 14 days of land disturbance. All disturbed areas left mulched after 30 days shall be stabilized with temporary grassing.

Maintenance and Inspection: Contractor shall inspect control measures at the end of each
working day to ensure measures are functioning properly. Sediment and erosion control
measures should be checked after each rain event.

Responsible Staff: PRIMARY CONTRACTOR

CRS - Temporary Road Stabilization

- The entrance road will be stabilized with a 6" layer of coarse aggregate.
- Maintenance and Inspection: The road will be maintained with coarse aggregate. This may require top dressing with 1-3" of stone.

Responsible Staff: PRIMARY CONTRACTOR

2.5 Culvert Inlet and Outlet Protection

IP/OP – Inlet/Outlet Protection

- Storm drainage pipes are to be protected with inlet & outlet protection as shown on the attached plans. All sediment will be removed from the pipes prior to final stabilization.
- Maintenance and Inspection: The culverts should be inspected daily for any deposition
 of sediment. Should sediment be present in the culvert, other erosion control measures
 should be checked immediately for failures. Any failures should be repaired
 immediately. Silt should be removed only from wet weather conveyance culverts in the
 dry.
- When required, the filter ring should surround all sides of the structure receiving runoff from disturbed areas. The ring should be constructed so that it does not cause flooding or damage to adjacent areas.

Responsible Staff: PRIMARY CONTRACTOR

SECTION 3: GOOD HOUSEKEEPING BMPS

3.1 Good Housekeeping BMPs

Each contractor is responsible to provide litter control for trash generated by his crew. A dumpster for garbage will be located near the construction trailer and is limited to garbage and paper trash only. Paint cans, oil cans, used oil, and filters will be contained and disposed of by the contractor by taking them to the local hazardous disposal center.

Any spillage noted during fueling of equipment and vehicles will be removed immediately. Contaminated soils will be placed on heavy plastic and covered or placed into approved containers to prevent contact with storm water.

- If a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity established under either 40 CFR 117 or 40 CFR 302 occurs during a 24-hour period, the contractor will immediately notify the permittee who shall then do the following: notify the NATIONAL RESPONSE CENTER (NRC) at (800) 424-8802 and the TENNESSEE EMERGENCY MANAGEMENT AGENCY (TEMA) (emergencies: 800-262-3300; non-emergencies: 800-262-3400); as well as the local Environmental Assistance Center (423) 634-5745.
- Also, A.D. Engineering Services will prepare a revision of this document to identify measures to prevent the reoccurrence of such releases.

SECTION 4: MAINTENANCE and INSPECTIONS

4.1 Maintenance

- 1. Ensure that vegetation, erosion and sediment control measures and other protective measures identified in this plan are kept in good and effective operating condition. Maintenance needs identified in inspections or by other means shall be accomplished before the next storm event if possible, but in no case more than seven days after the need is identified. If maintenance prior to the next anticipated storm event is impractical, maintenance must be scheduled and accomplished as soon as practical.
- 2. All measures will be maintained in good working order. If repair is necessary, it will be initiated within 48 hours of identification.
- 3. If the controls are installed and maintained correctly, but are found to provide an inadequate level of protection, contractor or owner will contact A.D. Engineering Services to make revisions to this plan and these revisions will be implemented by the contractor.
- 4. If sediment enters waters of the State, TDEC-WPC will be notified immediately and consulted with concerning removal of said sediment if required.
- 5. Removal of standing muddy water from the site shall be accomplished with a pump/filter bag combination or said water will be diverted into existing sediment control devices via a pump.

4.2 Inspection and Records

- 1. A blank inspection form is located in Appendix B.
- 2. Contractor shall maintain a copy of the NOI and the SWPPP on-site and readily available to TDEC personnel on request.
- 3. Contractor shall keep a daily log of rain gauge readings on-site and readily available to TDEC personnel on request.
- 4. The contractor shall keep completed inspection and maintenance reports on-site and readily available to TDEC personnel on request.

- 5. Silt fence will be inspected for excess sediment accumulation, damage, security of attachment to fence post, and to ensure that the fence and fence posts are buried properly into the ground.
- 6. Temporary and permanent seeding and plantings shall be inspected for bare spots, washouts and poor growth.
- 7. Outfall points shall be inspected to ensure that erosion control measures are in place and working.

SECTION 5: CERTIFICATION AND NOTIFICATION

Prepare and submit Notice of Termination (NOT) to TDEC once the construction activities are completed and the final stabilization of the site is in place. A copy of this form is located in Appendix A.

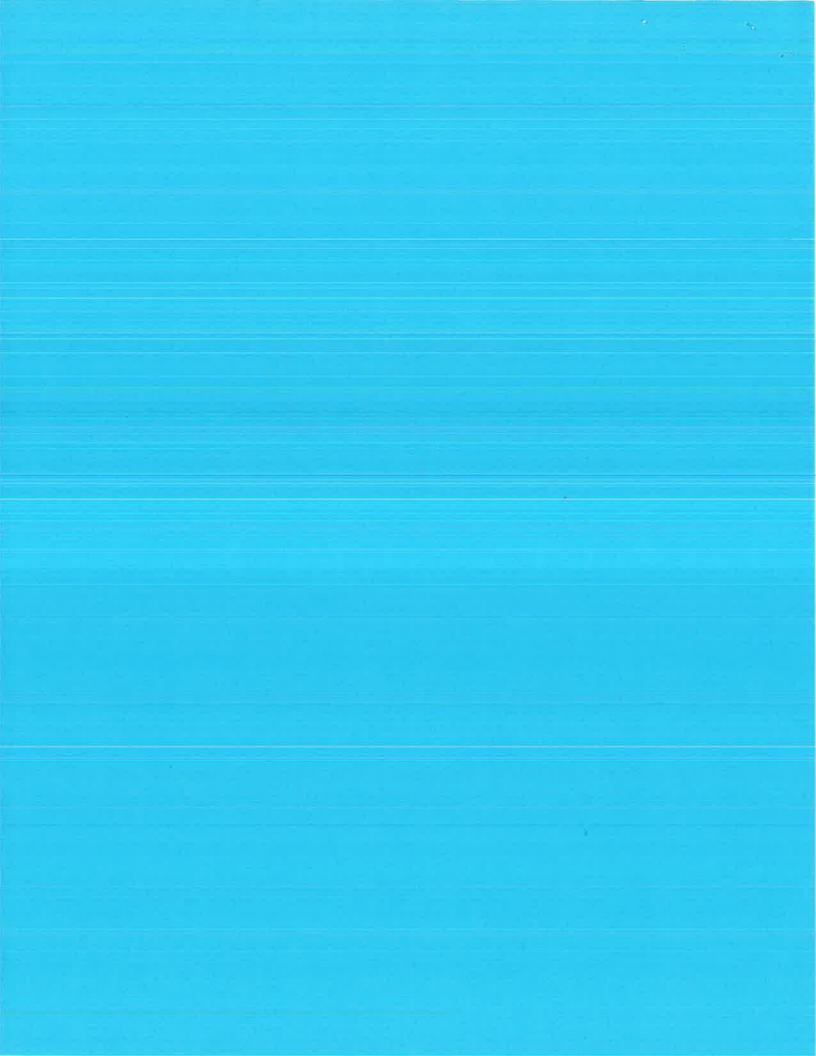
The NOT shall be submitted to:

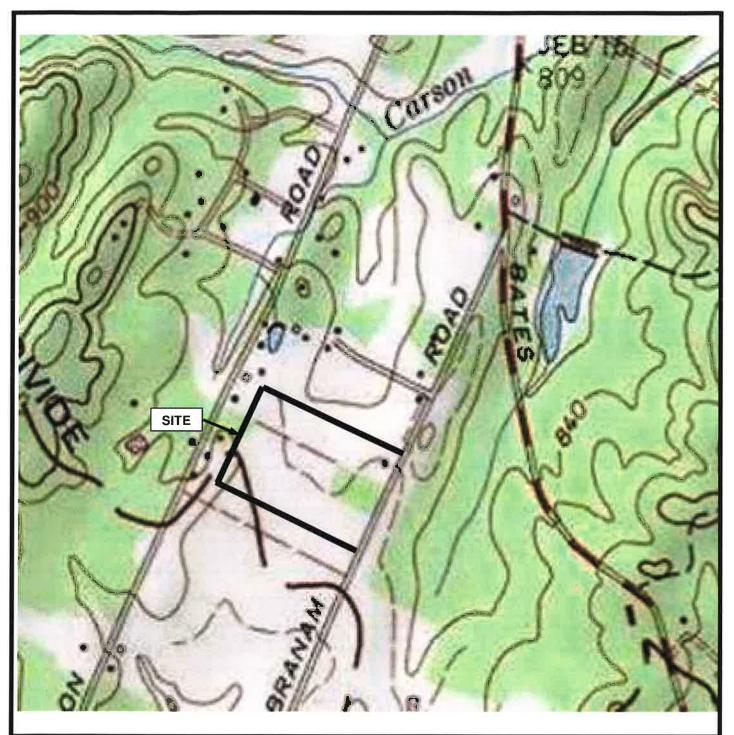
TDEC, Chattanooga Field Office Attn: Jennifer Innes 1301 Riverfront Parkway, Suite # 206 Chattanooga, TN 37402

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APPENDIX A

Topographic Map
Notice of Intent (NOI)
Notice of Termination (NOT)







COMPLETE ENGINEERING & DESIGN SERVICES

651 E. 4th Street, Suite 407 Chattanooga, TN 37403 Phone (423) 266-3501 Fax (423) 266-3286 Date: 01/25/2016

Source: TDEC GIS Services

HAYNES POULTRY FARM BRANAM ROAD SE BRADLEY COUNTY, TN

Site Location Map



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, TN 37243

1-888-891-8332 (TDEC) Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000) **Existing NPDES Tracking** Site or Project Name: Haynes Poultry Farm Number: TNR Start date: February 2016 Street Address or 266 Branam Road SE Location: Estimated end date: February 2017 Latitude (dd.dddd): 35.081144 Site Activity Construction of 6 new chicken houses Description: Longitude (dd.dddd): -84.764736 Acres Disturbed: 13.07 Jurisdiction: N/A County(ies): Bradley Total Acres: 37.35 Does a topographic map show dotted or solid blue lines and/or wetlands on or adjacent to the construction site? If wetlands are located on-site and may be impacted, attach wetlands delineation report. If an Aquatic Resource Alteration Permit has been obtained for this site, what is the permit number? ARAP permit No .: Receiving waters: Carson Creek Attach a site Attach the SWPPP with the NOI SWPPP Attached Map Attached location map Site Owner/Developer Entity (Primary Permittee): (person, company, or legal entity that has operational or design control over construction plans and specifications): Tom Haynes Site Owner/Developer Signatory (V.P. level/higher - signs certification Signatory's Title or Position (V.P. level/higher - signs certification below): (individual responsible for site): below): Mailing Address: 2441 Canterbury Chase Zip: 37128 City: Murfreesboro State: TN Phone: (423) 790-9507 Fax: (E-mail: haynest@rcschools.net **Optional Contact:** Title or Position: Adam Driver Engineer State: TN Zip: 37403 Mailing Address: 651 E. 4th Street, Suite 407 City: Chattanooga Phone: (423 Fax: (423) 266-3286 E-mail: adam@adengineering.us Owner or Developer Certification (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee) I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury. Date: Signature: Owner or Developer Name; (print or type) Tom Haynes Contractor(s) Certification (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee) I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. Contractor company name (print or type): Contractor signatory (print/type): (V.P. level or higher) Signature: Date: Mailing Address: City: State: Zip: Phone: (Fax: (E-mail: Other Contractor company name (print or type): Other Contractor signatory (print/type): (V.P. level or higher) Signature: Date: City: Mailing Address: State: Zip: Phone: (Fax: (E-mail: OFFICIAL STATE USE ONLY

Pecceived Date: 7/16	Reviewer:	Ch EFO	Permit Number TNR 112835	Exceptional TN Water:
Fee(s): 1000	T & E Aquatic Flora and Faun	a:	Impaired Receiving Stream:	Notice of Coverage Date:



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, TN 37243 1-888-891-8332 (TDEC)

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

110tice of litterit (11)	of delicial MI DEST	Climit 101 Stormwat	ci Discharges ire	in Constituction	ii Activities (***************************************	
Site or Project Name: Ha	ynes Poultry Farm			Existing NPDES Number: TNR	Tracking		
Street Address or 266	Branam Road S	E .		Start date: Februar	y 2016		
Location:	Dianam Noad C	, L		Estimated end da	ate: February 2017		
Site Activity Constru	ction of 6 new ch	icken houses	2	Latitude (dd.ddd	d): 35,081144		
Description:	Ottott of o fiew of	noken noaset		Longitude (dd.de	ddd): -84,764736		
County(ies): Bradley		MS4 Jurisdiction: N/	Acres Disturbed: 13.07				
		Jurisdiction: 177	`	Total Acres: 37,35			
If wetlands are located on-s	ow dotted or solid blue lines ite and may be impacted, atta- cration Permit has been obtain reek	ch wetlands delineation	report.	ARAP permit			
Attach the SWPPP with the NOI SWPPP Attached Attach a site location map Map Attached							
specifications): Tom H	Site Owner/Developer Entity (<i>Primary Permittee</i>): (person, company, or legal entity that has operational or design control over construction plans and specifications): Tom Haynes						
Site Owner/Developer Signatory (V.P. level/higher - signs certification below): (individual responsible for site):			below):	· · · · · · · · · · · · · · · · · · ·	eveninghet - S		
Mailing Address: 2441 Ca	Mailing Address: 2441 Canterbury Chase			oro	State: TN	Zip: 37128	
Phone: (423) 790-9507 Fax: ()			E-mail: haynest@rcschools.net				
Optional Contact: Adam	Title or Position: Engineer						
Mailing Address: 651 E. 4th Street, Suite 407			City: Chattanooga State: TN Zi			^{Zip:} 37403	
Phone: (423) 266-350	1 Fax: (423) 266-3286	E-mail: adam@ad	lengineering.us			
Owner or Developer Certi	fication (must be signed by p	resident, vice-president	or equivalent, or rai	nking elected offic	ial) (Primary 1	Permittee)	
my knowledge and belief, true,	nat this document and all attachmo accurate, and complete, I am aw Tennessee Code Annotated Secti	are that there are significa	nt penalties for submitt	ing false information	n, including the		
Owner or Developer Name;	(print or type) Tom Hayn	es	Signature:	m Hay	nes	Date: 1-26-16	
Contractor(s) Certification	n (must be signed by presiden	t, vice-president or equ	ivalent, or ranking el	lected official) (Se	econdary Perm	ittee)	
owner/developer identified abo	nat I have reviewed this document we and/or my inquiry of the perso oved, makes the above-described	n directly responsible for a	assembling this NOI an	nd SWPPP, I believe	the information	submitted is accurate. I	
Contractor company name (4	
Contractor signatory (print/t	type): (V.P. level or higher)		Signature:			Date:	
Mailing Address:			City: State: Zip:		Zip:		
Phone: ()	F	ax: ()	E-mail:				
Other Contractor company	name (print or type):						
Other Contractor signatory (print/type): (V.P. level or higher)			Signature:			Date:	
Mailing Address:	Mailing Address: City: State: Zip:					Zip:	
Phone: ()	Fax: ()	E-mail:		**	10	
OPEIGIAL OPARETICA	Z ONIL V						
OFFICIAL STATE USI Received Date:		Field Office:	Permit Number TNR		Exceptional	TN Water:	
Fee(s):	T & F Aquatic Flora and Fauna:		Impaired Receiving Stre	eam.	Notice of Co	verage Date:	

			4	
		×		

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

<u>Purpose of this form</u> A completed notice of intent (NOI) must be submitted to obtain coverage under the Tennessee General NPDES Permit for Discharges of Stormwater Associated with Construction Activity (permit). Requesting coverage under this permit means that an applicant has obtained and examined a copy of this permit, and thereby acknowledges applicant's claim of ability to be in compliance with permit terms and conditions. This permit is required for stormwater discharge(s) from construction activities including clearing, grading, filling and excavating (including borrow pits) of one or more acres of land. This form should be submitted at least 30 days prior to the commencement of land disturbing activities, or no later than 48 hours prior to when a new operator assumes operational control over site specifications or commences work at the site.

<u>Permit fee</u> (see table below) must accompany the NOI and is based on total acreage to be disturbed by an entire project, including any associated construction support activities (e.g. equipment staging yards, material storage areas, excavated material disposal areas, borrow or waste sites).

Acres	= or > 150	= or > 50 < 150	= or > 20 < 50	= or > 5 < 20	= or > 1 < 5	Subsequent coverage*
Disturbed	acres	acres	acres	acres	acres	
Fee	\$10,000	\$6,000	\$3,000	\$1,000	\$250	\$100

^{*} Subsequent Primary Operators seeking coverage under an actively covered larger common plan of development or sale

Who must submit the NOI form? Per Section 2 of the permit, all site operators must submit an NOI form. "Operator" for the purpose of this permit and in the context of stormwater associated with construction activity means any person associated with a construction project who meets either or both of the following two criteria: (1) The person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g. subsequent builder), or the person that is the current land owner of the construction site. This person is considered the primary permittee; or (2) The person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

Owners, developers and all contractors that meet the definition of the operator in subsection 2.2 of the permit shall apply for permit coverage on the same NOI, insofar as possible. After permit coverage has been granted to the primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The comprehensive site-specific SWPPP shall be prepared in accordance with the requirements of part 3 of the permit and must be submitted with the NOI unless the NOI being submitted is to only add a contractor (secondary permittee) to an existing coverage.

Notice of Coverage The division will review the NOI for completeness and accuracy and prepare a notice of coverage (NOC). Stormwater discharge from the construction site is authorized as of the effective date of the NOC.

<u>Complete the form</u> Type or print clearly, using ink and not markers or pencil. Answer each item or enter "NA," for not applicable, if a particular item does not fit the circumstances or characteristics of your construction site or activity. If you need additional space, attach a separate piece of paper to the NOI form. **The NOI will be considered incomplete without a permit fee, a map, and the SWPPP.**

Describe and locate the project Use the legal or official name of the construction site. If a construction site lacks street name or route number, give the most accurate geographic information available to describe the location (reference to adjacent highways, roads and structures; e.g. intersection of state highways 70 and 100). Latitude and longitude (expressed in decimal degrees) of the center of the site can be located on USGS quadrangle maps. The quadrangle maps can be obtained at the USGS World Wide Web site: http://www.usgs.gov/; latitude and longitude information can be found at numerous other web sites. Attach a copy of a portion of a 7.5 minute quad map, showing location of site, with boundaries at least one mile outside the site boundaries. Provide estimated starting date of clearing activities and completion date of the project, and an estimate of the number of acres of the site on which soil will be disturbed, including borrow areas, fill areas, stockpiles and the total acres. For linear projects, give location at each end of the construction area.

MS4 Jurisdiction: If this construction site is located within a Municipal Separate Storm Sewer System (MS4), please list name of MS4. A current list of MS4s in Tennessee may be found at http://www.state.tn.us/environment/water/water-quality_storm-water.shtml

Give name of the receiving waters Trace the route of stormwater runoff from the construction site and determine the name of the river(s), stream(s), creek(s), wetland(s), lake(s) or any other water course(s) into which the stormwater runoff drains. Note that the receiving water course may or may not be located on the construction site. If the first water body receiving construction site runoff is unnamed ("unnamed tributary"), determine the name of the water body that the unnamed tributary enters.

ARAP permit may be required If your work will disturb or cause alterations of a stream or wetland, you must obtain an appropriate Aquatic Resource Alteration Permit (ARAP). If you have a question about the ARAP program or permits, contact your local Environmental Field Office (EFO).

<u>Submitting the form and obtaining more information</u> Note that this form must be signed by the company President, Vice-President, or a ranking elected official in the case of a municipality, for details see subpart 2.5. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed NOI form (keep a copy for your records) to the appropriate EFO for the county(ies) where the construction activity is located, addressed to **Attention: Stormwater NOI Processing**.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	1301 Riverfront Parkway, Suite 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601



Department of Environment and Conservation Division of Water Pollution Control

NOTICE OF TERMINATION (NOT) – STORM WATER DISCHARGES CONSTRUCTION ACTIVITY

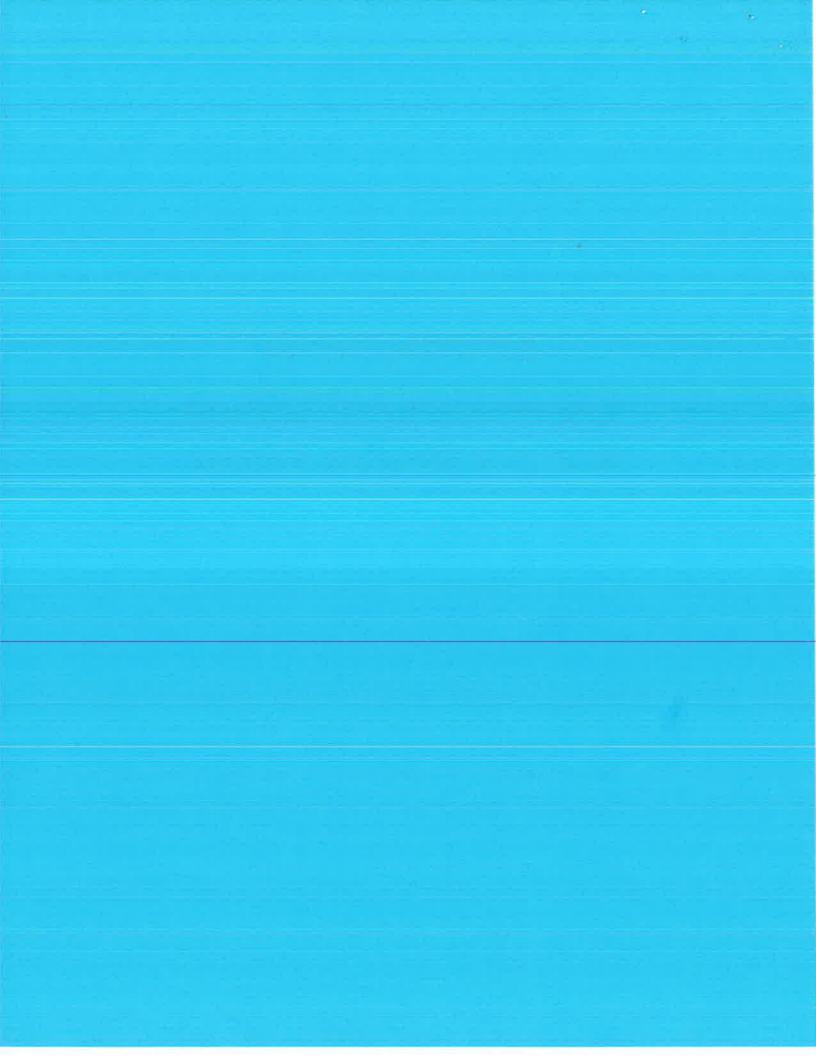
This form is required to be submitted when requesting termination of coverage from the General NPDES Permit for Discharges of Storm Water Associated with Construction Activities. The purpose of this form is to notify the Tennessee Department of Environment and Conservation that you, as a permitted operator of storm water discharges from a construction activity, no longer have responsibilities related to erosion and sediment controls at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the local Division of Water Pollution Control, Environmental Field Office (EFO) address (see table below), and marked "Storm Water Notice of Termination". For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Type or print clearly, using ink and not markers or pencil.

Site	Name:	Haynes Poultry Farm		Tracking N	0.		
	et Address ocation:	266 Branam Road SE, Bradley County, TN					
Site Des	cription:	Construction of six new chicken houses, including clearing and grading site					
Site	Owner/Dev Tom Hayr	veloper: (person, company, or legal entity that has operationes	nal or design control over construc	tion plans and spe	cifications)		
		er Contact: (individual responsible for site)	Title or Position:				
	n Haynes		Owner				
	ling Address: 1 Canterbu	ry Chase	City: Murfreesboro	State: TN	Zip: 37128		
Phor		y valuev	B-mail:				
(42	3) 790-9507		haynest@rcschools.net				
Che	eck the reaso	on for termination of permit coverage:					
	Storm water restabilized (Explain	discharge associated with construction activity is no lo (i.e., termination of initial permittee coverage).	onger occurring and the area pre	eviously under c	onstruction has been		
	You are no l	onger the operator of the facility/site (i.e., termination	of primary or secondary permit	tee coverage).			
	Name or	f Permittee requesting termination of coverage:					
	Explain	:					
		nd Signature (must be signed by president, vice-J					
an of term storr NPE Clear	I certify under penalty of law that either: (a) all storm water discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge storm water associated with construction activity under this general permit, and that discharging pollutants in storm water associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act. For the purposes of this certification, elimination of storm water discharges associated with construction activity means that all disturbed soils at the portion of the construction site where the operator had control have been finally stabilized and temporary erosion and sediment control measures have been removed or will be						
remo iden cont	oved at an appr tified site that a rol.	ropriate time to insure final stabilization is maintained, or are authorized by a NPDES general permit have otherwise between the control of	that all storm water discharges as been eliminated from the portion of	sociated with cor	struction activities from the site where the operator had		
	ator name; print of m Haynes	r type	Signature		Date		

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	2510 Mt. Moriah Road STE E-645	38115-1520	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	540 McCallie Avenue STE 550	37402-2013
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	2484 Park Plus Drive	38401	Johnson City	2305 Silverdale Road	37601

CN-1175 (Rev. 05-05) RDAs 2399 and 2400

APPENDIX B Inspection Certification Rainfall Record Sheets





TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources 6th Floor Annex, L&C Tower, 401 Church Street, Nashville, Tennessee 37243 1-888-891-8332 (TDEC)

General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

Construction Stormwater Inspection Certification (Twice-Weekly Inspections)

Site or Project Name:			NPDES Tracking Number: TNR				
Primary Permittee Name:			Date of Inspection:				
Current approximate disturbed acreage:	Has rainfall been checked/doc ☐ Yes ☐ No	cumented daily?	Name of Inspector:				
Current weather conditions:			Inspector's TNEPSC Certification Number:				
Please check the box if the follo	-						
☐ Notice of Coverage (NOC)	Stormwater Pollution Preve	·	-	kly inspection d	locumentation		
☐ Site contact information	☐ Rain Gage ☐ Off-site Re	ference Rain Gage I	Location:				
Best Management Practices (BMP		•					
Are the Erosion Prevention and Se		The second secon	No," describe below in Co.		7. Day		
	alled and maintained per the SWPPI		4.1.50		Yes No		
Are EDSCs functioning source	etly at all disturbed areas/material stortly at outfall/discharge points such t				Yes No		
receiving stream, and no other	water quality impacts per section 5	.3.2?		ine _	Yes No		
	tly at ingress/egress points such that				Yes No		
"No," describe below the mea	from dewatering activities been ma- sures to be implemented to address	deficiencies.	•	L]Yes □No		
6. If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 14 days per section 3.5.3.2? If "No," describe below each location and measures taken to stabilize the area(s).]Yes □No		
7. from equipment and vehicle w below the measures to be impl	asures been installed, implemented, rashing, wheel wash water, and othe lemented to address deficiencies.	r wash waters per se	ction 4.1.5? If "No," descr	ollutants ribe]Yes		
8. If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No," describe below the measures to be implemented to address deficiencies.]Yes □No		
	been addressed? If "No," describe tective measures have been reported		encies in the Comments se	ction.]Yes □No		
Comment Section. If the answer	is "No" for any of the above, ple		roblem and corrective a	ctions to be tal	ken.		
Otherwise, describe any pertinent	t observations:						
Certification and Signature (must b							
I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated							
Section 39-16-702(a)(4), this declarate	tion is made under penalty of perjur	y					
Inspector Name and Title:		Signature:		Date:			
Primary Permittee Name and Title:		Signature:		Date:			

Construction Stormwater Inspection Certification Form (Twice-Weekly Inspections)

Purpose of this form/ Instructions

An inspection, as described in section 3.5.8.2. of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at least twice every calendar week and documented on this form. Inspections shall be performed at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice), such inspection only has to be conducted once per month until thawing results in runoff or construction activity resumes.

Inspectors performing the required twice weekly inspections must have an active certification by completing the "Fundamentals of Erosion Prevention and Sediment Control Level I" course. (http://www.tnepsc.org/). A copy of the certification or training record for inspector certification should be kept on site.

Qualified personnel, as defined in section 3.5.8.1 of the Permit (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.

Outfall points (where discharges leave the site and/or enter waters of the state) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event if possible, but in no case more than 7 days after the need is identified.

Based on the results of the inspection, the site description identified in the SWPPP in accordance with section 3.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 3.5.2 of the Permit, shall be revised as appropriate, but in no case later than 7 days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.

All inspections shall be documented on this Construction Stormwater Inspection Certification form. Alternative inspection forms may be used as long as the form contents and the inspection certification language are, at a minimum, equivalent to the division's form and the permittee has obtained a written approval from the division to use the alternative form. Inspection documentation will be maintained on site and made available to the division upon request. Inspection reports must be submitted to the division within 10 days of the request.

Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.

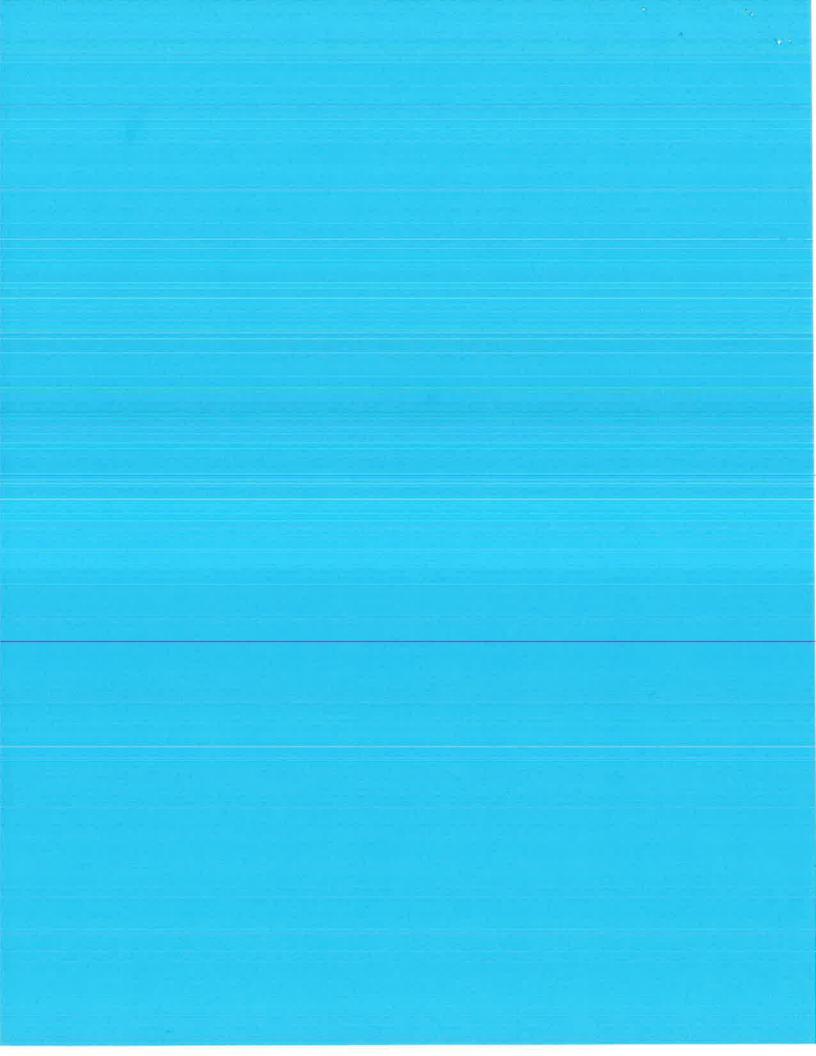
RAINFALL RECORD SHEET

Month/Year:	

Day	Rainfall (inches)	Start Time	End Time	Misc./outside temp.
1	(222225)		†	1
2			1	t
3	i i			†
4			1	
5			1	
6				
7				
8				
9				
10				
11				
12				
13	11			
14				
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16				
17				
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E.			
	α		

APPENDIX C BMP Specifications and Details

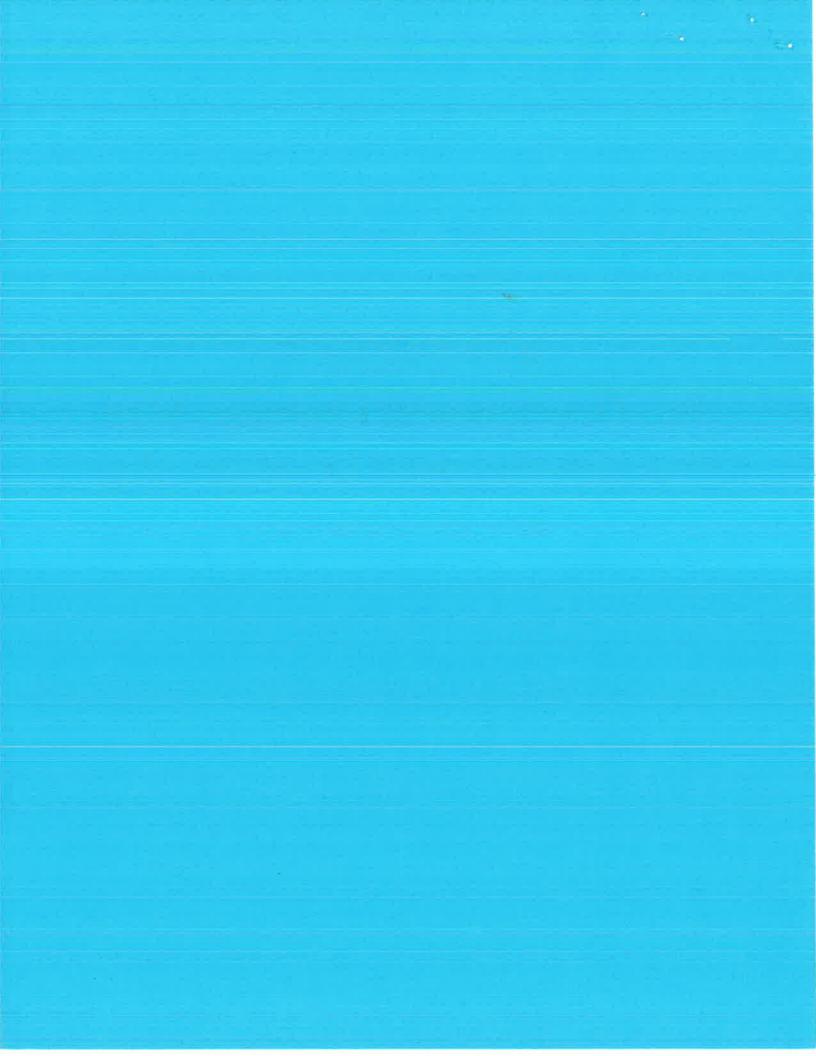


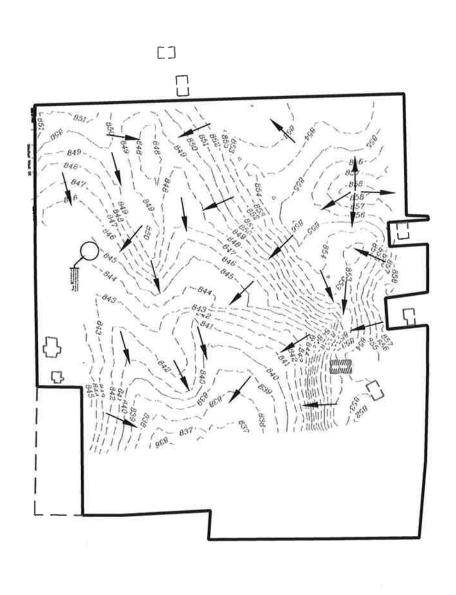
BMP specifications and details have been omitted from the TDEC file copy to reduce file storage requirements and to conserve paper. Copies of the applicable sections, listed below, were provided to the owner/operator for reference.

- Construction Exit
- Silt Fence
- Check Dams
- Filter Ring
- Outlet Protection
- Construction Road Stabilization
- Concrete Truck Washout
- Temporary Vegetation
- Permanent Vegetation

5		ű		

APPENDIX D Pre-Development Drainage Map Post-Development Drainage Map Site Soil Survey









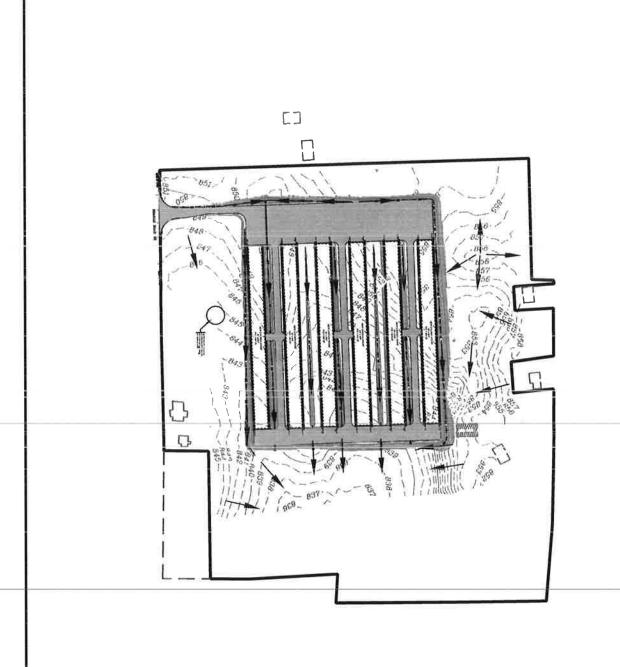
DA 1.0

DRAWN BY: WGM CHECKED BY: ASD

ENGINEERING SERVICES, INC.
651 E. 4th Street, Sulte 407
Chattanooga, TN 37403
PH: (423) 266-3201
FAX: (423) 266-3206

for MR. TOM HAYNES HAYNES POULTRY FARM 2441 CANTERBURY CHASE MURFREESBORO, TN 37128 (423) 790-9507

HAYNES POULTRY FARM BRANAM ROAD SE BRADLEY COUNTY, TN







15213

POST-CONSTRUCTA
DRAWING NUMBER

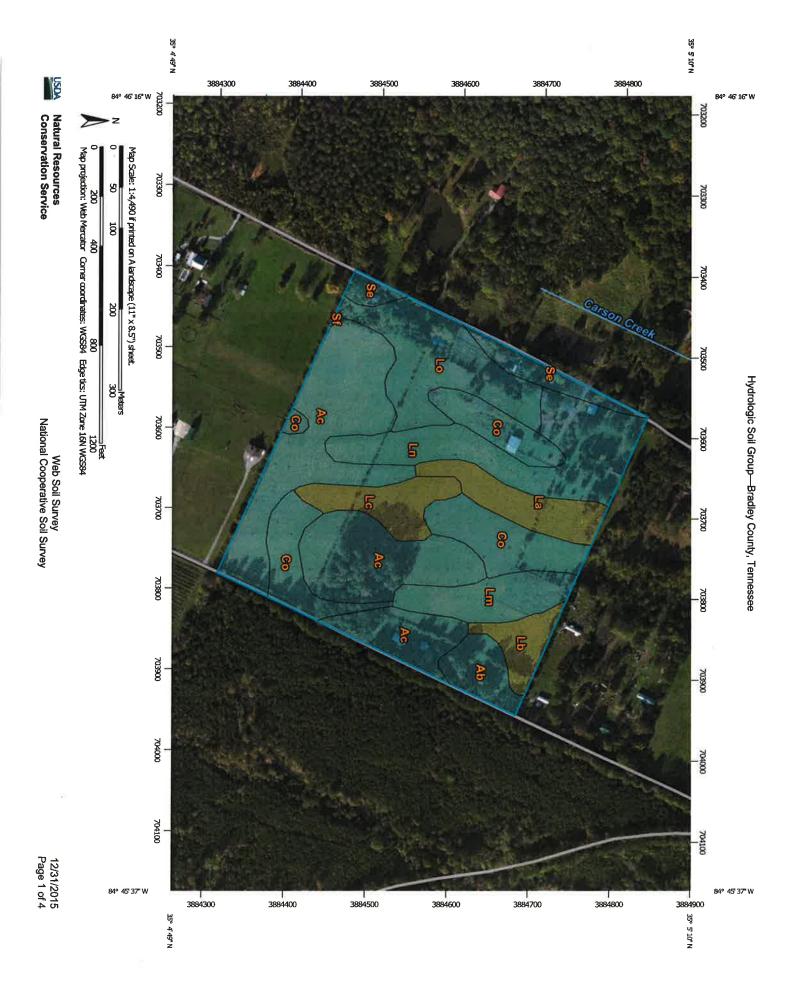
DRAWN BY:
WGM

CHECKED BY:
Drawn: 01/20/20/
Revised:
SCALE: 1" = 200
JOB NUMBER:



for MR. TOM HAYNES HAYNES POULTRY FARM 2441 CANTERBURY CHASE MURFREESBORO, TN 37128 (423) 790-9507

HAYNES POULTRY FARM BRANAM ROAD SE BRADLEY COUNTY, TN



USDA Natural Resources Conservation Service

MAP LEGEND

Area of Interest (AOI) Soil Rating Polygons Soll Rating Points Soil Rating Lines o Þ 8 w Not rated or not available S 8 Not rated or not available 0 C ₹ ₽ S 80 0 ⋛ Area of Interest (AOI) Background Transportation Water Features Ī **80** (8) Rails Aerial Photography Streams and Canals C Not rated or not available O S Major Roads **US Rcutes** Interstate Highways Local Roads

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bradley County, Tennessee Survey Area Data: Version 14, Sep 19, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 12, 2011—Oct 15, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ab	Apison silt loam, eroded rolling phase	С	1.5	3.5%
Ac	Apison silt loam, eroded undulating phase	С	13.0	31.7%
Со	Cotaco silt loam	С	6.3	15.4%
La	Leadvale silt loam, eroded rolling phase	C/D	2.3	5.6%
Lb	Leadvale silt loam, eroded undulating phase	C/D	1.3	3.2%
Lc	Leadvale silt loam, undulating phase	C/D	2.1	5.0%
Lm	Litz shaly silt loam, eroded hilly phase	С	2.4	5.9%
Ln	Litz shaly silt loam, eroded rolling phase	С	5.7	13.9%
Lo	Litz shaly silt loam, eroded undulating phase	С	4.8	11.7%
Se	Sequoia silty clay loam, eroded rolling phase	С	1.6	3.9%
Sf	Sequoia silty clay loam, eroded undulating phase	С	0.0	0.1%
Totals for Area of Inter	est	41.1	100.0%	

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Solls having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

