Permittee: Louisiana Department of Transportation and Development

Permit Number: LAR043001

Agency Interest No: 108424

Reporting Period: January 1, 2012 - December 31, 2012

Annual Report
for the
Louisiana Pollutant Discharge Elimination System (LPDES)
General Permit for Discharges from
Regulated Small Municipal Separate Storm Sewer Systems (MS4s)

Date: March 12, 2013

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.

Signature: _____

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List of Acronyms

AST	Aboveground Storage Tank
BMP	Best Management Practice
CSI	Certified Storm Water Inspector
EA	Environmental Assessment
EEU	Environmental Evaluation Unit
EPA	Environmental Protection Agency
EQMS	Equipment Management System
GIS	Geographic Information Systems
LADOTD	Louisiana Department of Transportation and Development
LDAF	Louisiana Department of Agriculture and Forestry
LDEQ	Louisiana Department of Environmental Quality
LPB	Louisiana Public Broadcasting
LPDES	Louisiana Pollutant Discharge Elimination System
LSWA	Louisiana Solid Waste Association
LTRC	Louisiana Transportation Research Center
LUSC	Louisiana Urban Stormwater Coalition
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MOPS	Maintenance Operation System
MS4	Municipal Separate Storm Sewer System
NHI	National Highway Institute
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance

PE	Project Engineer
PSA	Public Service Announcement
SPC	Spill Prevention and Control Plan
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
UA	Urbanized Area

Executive Summary

It has been estimated that over 56,000 pounds of contaminants enter Louisiana waters from its highway drainage system. As the steward of Louisiana roads and bridges and therefore its drainage system, the Louisiana Department of Transportation and Development (LADOTD) has been proactive in combating the above alarming statistic to prevent the further deterioration of the state's surface waters. This is being accomplished through the implementation of a broad storm water management program to address discharges from its drainage system, construction sites, and facilities as mandated by the Louisiana Pollutant Discharge Elimination System General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), master general permit number LAR040000.

The permit challenges the permittee to develop best management practices (BMPs) or water pollution controls for each of the six minimum control measures listed below.

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development and Re-development
- Pollution Prevention/Good Housekeeping for Municipal Operations

Typically, the BMPs whether structurally engineered devices or procedural policies, are put into practice in areas designated by the permitting authority, however the LADOTD has chosen to apply its BMPs statewide.

To remain in permit compliance, the report presented here includes five major topics to address each of the five annual report requirements as stated in the permit. The LADOTD's annual report details the pollution prevention activities undertaken by the permittee during the 2012 calendar year to reduce the pollutants entering its MS4 as well as limiting the polluted discharge from its MS4 to area water bodies.

Introduction:

In 1972, polluted point source discharges to the waters of the United States were prohibited unless authorized by the National Pollutant Discharge Elimination System (NPDES) permitting system. Originally improvements to water quality focused on limiting industrial wastewater discharges and sanitary sewerage overages. However it became evident that poor water quality was caused by more than these two processes alone. It was later recognized that polluted storm water runoff was a major contributor to impaired surface waters.

Polluted storm water runoff is collected, transported, and ultimately discharged to nearby surface waters without treatment. Common contaminants found in runoff include litter, sediment, and oil. In response to increasing runoff concerns, the Environmental Protection Agency (EPA) and state permitting authorities were tasked with implementing a two phased approach to address storm water discharges.

Phase I of the storm water program regulated discharges from medium and large municpal separate storm sewer systems (MS4s), construction activity that disturbs 5 or more acres of land, and ten categories of industrial activity. With the addition of the Phase II Rule, the reach of the storm water program was strengthened by authorizing the discharge of storm water from small MS4s and construction sites that disturb at least 1 acre of land.

Though the storm water program was implemented in two stages, Phase I and II, the program is typically divided into three basic components, municipal, industrial, and construction. Because of the Louisiana Department of Transportation and Development (LADOTD) massive operations, it functions in all three of these areas. The LADOTD holds several storm water permits for its construction projects, facilities, and highway drainage systems.

As required by the Louisiana Department of Environmental Quality (LDEQ), the state's permitting authority; the LADOTD submitted a notice of intent (NOI) in March 2003 requesting coverage for discharges from its MS4. The LDEQ granted the LADOTD statewide permit coverage under its Lousiana Permit Discharge Elimination System (LPDES) which was modeled after the NPDES in May 2003. The LPDES permitting mechanism charged the permittee to develop a comprehensive storm water management program that was designed to reduce the amount of runoff discharged to surface waters as well as the amount of pollutants within the discharge itself to the maximum extent practicable (MEP) in each of its urbanized areas (UAs) and the regulated areas designated by the LDEQ. This was to be achieved through developing best management practices (BMPs) for each of the six required minimum control measures (MCMs). Through evaluation of measurable goals, the effectiveness of the BMPs in meeting water quality requirements can be determined.

As a small MS4 operator in fifteen areas throughout the state, the LADOTD has chosen to write its storm water management plan (SWMP) in a manner that all BMPs are implemented statewide and not just in the permitted MS4s. However, for the purpose of this report, the cities listed below will be addressed as required by the permit:

- Alexandria urbanized area
- Baton Rouge urbanized area
- Houma urbanized area
- Lafayette urbanized area
- Lake Charles urbanized area
- Mandeville-Covington urbanized area
- Monroe urbanized area
- New Orleans urbanized area
- Shreveport urbanized area
- Slidell urbanized area
- LDEQ-designated regulated area of Abbeville
- LDEQ-designated regulated area of Bastrop
- LDEQ-designated regulated area of Hammond
- LDEQ-designated regulated area of Morgan City
- LDEQ-designated regulated area of Natchitoches

The activities undertaken during the first four years following the initial authorization under the 2002 general permit include, but are not limited to, developing a construction inspection program, educating the public via TV, print, and internet, and locating outfalls within the regulated areas to create a storm sewer system map. At the permit's expiration, the permittee had not completed all of the activities scheduled during the permit term; however it had fulfilled the primary requirement of having adopted and executed a SWMP.

The LDEQ renewed the LADOTD's MS4 permit to the permittee on November 30th, 2007. As the permittee entered this second permit term, the LADOTD modified its original implementation schedule to include new goals and to reflect progress made from the previous permit term. Per the 2007 permit, the LADOTD is required to conduct at a minimum, a yearly review of the storm water management program in preparation for the annual report. During the review period, the efficacy of all BMPs is evaluated using the established measurable goals. The results of the review and any changes made to the SWMP are then presented in the annual report.

Per Part V.C. of the 2007 general permit, the annual report must address the following requirements:

1. The status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices, progress towards achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable (MEP), and the measurable goals for each of the MCMs;
2. Results of information collected and analyzed, if any, during the reporting period, including any monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;
3. A summary of the storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule);

4. Proposed changes to your Storm Water Management Program, including changes to any BMPs or any identified measureable goals that apply to the program elements; and
5. Notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable).

This annual report has been prepared to comply with the above conditions.

Program Evaluation

The section entitled *Program Evaluation* will fulfill the below annual report requirement from the 2007 general permit.

> *The status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and the measurable goals for each of the MCMs.*

Because the above requirement addresses several elements, the permittee has chosen to separate the requirement so that each component may be fully addressed.

Status of Compliance

The LADOTD's storm water management program was reviewed in its entirety and then compared to the mandates set forth in the 2007 general permit. After completing the required self assessment, the LADOTD has determined that additional attention is needed in the following areas to sufficiently achieve permit compliance;

Part IV.C.3.(1)	*Detection of Illicit Discharges*
Part IV.G	Possible MS4 Discharges to the LDEQ Section 303(d) List of Impaired Waters.

BMP Assessment

During the annual evaluation of the SWMP, data is collected and analyzed to yield performance indicators. A performance indicator is a measurement of the effectiveness of the BMP relative to the MCM. It is used to determine if MCM improvements are needed. MCM improvements are achieved through the elimination and addition of BMPs. As a result of the self assessment for the 2012 calendar year, the permittee has determined the BMPs developed satisfactorily address the required MCMs.

Progress towards Achieving the Statutory Goal

Per permit requirements, the LADOTD is mandated to reduce pollutants in storm water runoff to the MEP through the use of various BMPs. BMP efficacy is determined through data collection and evaluation. Additionally, the permittee conducts research on emerging technologies to determine the usefulness of new products and to ascertain if its value will be beneficial for future use. Because of continuous research efforts, the LADOTD remains current in its approach to handling polluted runoff. The permittee will continue to make significant strides in reducing polluted discharge to the MEP.

Measurable Goals for each of the MCMs

Measurable goals are quantifiable measurements that indicate effort, i.e. website traffic, miles swept, etc. This data tracked over time used in conjunction with performance indicators will quantitatively indicate the effectiveness of each BMP. Identification of productive versus non-productive BMPs allows the permittee to make necessary changes to strengthen its storm water management program. The measurable goals developed for each MCM are detailed in the section entitled Summary of Minimum Control Measures.

Summary of Minimum Control Measures

The section entitled *Summary of Minimum Control Measures* will fulfill the below annual report requirement from the 2007 general permit.

> *Results of information collected and analyzed, if any, during the reporting period, including any monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP.*

The results presented here represent the cumulative efforts of the permittee in all fifteen permitted areas, however to obtain area specific information refer to Appendix A. A measurable goals output table has been created for each urbanized and regulated area listing the data collected for each BMP for the 2012 calendar year. The activities for each minimum control measure are summarized below.

MCM: Public Education and Outreach on Storm Water Impacts

The permittee has developed six BMPs with a corresponding measureable goal to achieve compliance with the above MCM, public education and outreach of storm water impacts. The results, if any, of each BMP are presented below.

BMP: Flyers and Brochures

BMP Description: Design and publish flyers and/or brochures for the purpose of educating the public on various storm water related topics.

Summary of Results:

The permittee reproduced the brochure developed by the EPA entitled, *After the Storm*. The brochure provides an overview of the various sources of storm water pollution, the effect of contaminants on water bodies, and suggestions to the reader on how to prevent polluted runoff. An example of the brochure used by the LADOTD is provided in Appendix B. During 2012 the brochures were distributed statewide at various LADOTD properties and at the Louisiana Department of Culture, Recreation and Tourism Welcome Centers. The location and number of brochures disseminated in each permitted area is provided below.

Regulated Area	Location	Quantity
Baton Rouge	Louisiana Welcome Center	
Lafayette	Atchafalaya Welcome Center	60
Lake Charles	I-10 Eastbound Welcome Center	50
Shreveport	Maintenance Unit	15
Monroe	Maintenance Unit	15
Chase	Maintenance Unit	15

A second brochure, *Understanding Stormwater* was developed for distribution. The brochure provides a general overview of what storm water pollution is, identify sources, and the problems associated with it. The brochure further details pollution prevention tips while traveling, and ways to get involved such as volunteering in our "Adopt-A Road Program" and LADOTD contact information to report any illegal activities. The permitee plans to distribute the brochure in 2013. An example of the brochure is provided in Appendix B.

In addition to the brochures, the LDEQ designed poster titled *Make Changes, Be the Solution!* was displayed at 3 LADOTD maintenance facilities within the Baton Rouge urbanized area. The poster communicates to the reader simple tasks that can assist in limiting contaminants in storm water discharges. The use of these locations was two-fold in that it provided an educational opportunity to local residents and the LADOTD's employees as well. An example of the poster in use is provided in Appendix C.

Lastly, in order to educate small children of the importance of keeping our water clean, the LADOTD has received permission from the Metropolitan North Georgia Water Planning District to print and distribute an activity booklet titled, "Be a Solution to Water Pollution". The activity booklet will be distributed in a packet including crayons, stickers, and a book marker, "Clean Water, Everybody's Business". An example of the packet contents is provided in Appendix D.

BMP: Storm Water Quality Website

BMP Description: Design and maintain a website to educate individuals on the impact of storm water runoff.

Summary of Results:

The permittee has developed a website completely dedicated to the topic of storm water. The topics covered on the website include the following:

- An MS4 Defined
- Examples of BMPs
- Previously submitted Annual Reports
- Examples of Illicit Discharges
- A Mechanism to Report an Illicit Discharge
- Urbanized Area Maps
- External Links to LADOTD Adopt-a-Road program, LADEQ website, and EPA website
- Contact LADOTD/Feedback Mechanism

As of November 14, 2006, the traffic to the website has been continuously monitored and to date has had 3437 visitors. Of the 3437 total views, 989 occurred in 2012. This represents a significant increase in visits in comparison to previous reporting years. The website can be found at the following address: http://www.dotd.la.gov/highways/construction/lab/ms4/home.asp?page=home$.

BMP: Public Service Announcements

BMP Description: Develop and broadcast a storm water related public service announcement (PSA).

Summary of Results:

The permittee has produced a 30 second PSA for television focusing on the impact of runoff from Louisiana's highway system. The PSA also provides tips to the listener on how to prevent storm water related pollution. The verbiage of the PSA is given below:

> *Each year more than 56,000 pounds of trash, litter, and other contaminants from Louisiana's highways end up in our lakes, streams and scenic waterways. You can help prevent water pollution by keeping our roads clean, repair all fluid leaks in your vehicle, bag your trash and place it in designated trash bins, and report illegal dumping. Clean highways today, mean cleaner water tomorrow.*

The permittee has contracted with the Louisiana Public Broadcasting (LPB) station to broadcast the above LADOTD developed PSA. Because the permittee renews its contract with LPB in May of each year, two separate contracts cover the 2012 calendar year. The first having a contract term from May 31, 20011 to May 23, 2012 and the second and current contract term is from May 31, 2012 to May 30, 2013. The contract stipulates that the PSA will be aired a minimum of 40 times during each contract term. The PSA had 102 broadcasts on the LPB station between 01/01/2012 to 12/31/2012. A copy of both contracts and the broadcast schedule are provided in Appendix E.

Additionally, the contract between the permittee and LPB provides the LADOTD an opportunity to be featured in the LPB *Visions* magazine. Unfortunately, the LADOTD did not publish an article in 2012. However, the permittee plans to continue this form of public education and outreach in 2013.

BMP: Impacts of Illegal Dumping and Littering

BMP Description: Develop and distribute various public education materials that focus on illegal dumping.

Summary of Results:

The permittee uses a variety of methods to publicize the impact of illegal dumping and littering. Print, TV, as well as electronic media is used by the LADOTD to inform the public of the sources and effects of dumping and littering on area surface waters. The statewide circulation of the *After the Storm* brochure, the display of the Make Changes, Be the Solution! poster, the PSA developed for television broadcast, which also has been made available for online viewing, and the LADOTD developed website all include verbiage on both subjects. In addition, the permittee has taken the added step to have its catch basin covers cast with the following phrase:

Dump No Waste *Drains to Waterways*

Please refer to Appendix F to view a photograph of a catch basin cover currently in use by the department.

BMP: Public Education on Construction Activities and New Development Activities

BMP Description: Develop and distribute various public education materials that inform the public of the impact of construction on area waters.

Summary of Results:

The impact of construction activity on water quality and the steps an individual can take during construction to limit erosion and sedimentation is included in the *After the Storm* brochure. Refer to Appendix B for an example brochure used by the department.

BMP: Education of School Children on the Importance of Water Quality

BMP Description: Develop & distribute educational materials related to storm water at LADOTD rest areas.

Summary of Results:

The permittee has made significant progress in the implementation of this BMP. LADOTD has developed several interactive ideas to educate small children on the importance of maintaining clean water. Packets including educational material related to storm water will be distributed at LADOTD rest areas and tourist centers statewide. Refer to Appendix D for an example of packet contents.

MCM: Public Involvement/Participation

The permittee has developed five measurable goals corresponding to each BMP developed by the permittee to ensure compliance with the above MCM, public involvement/participation. The results, if any, of each BMP are presented below.

BMP: MS4 Committee

BMP Description: To form a committee comprised of various LADOTD personnel that consider issues relative to developing and implementing BMPs statewide. The ideas developed by the committee will then be posted for public comment prior to implementation.

Summary of Results:

The MS4 committee held two meetings during 2012 to review various components of the storm water management program; however, no invitations were extended to the public.

After a thorough evaluation, it was determined the MS4 Committee BMP was not being fulfilled as originally designed due to a lack of public involvement. As a result, members of the EEU decided to remove this BMP. However, the permittee has added three (3) additional BMPs to Public Involvement and Participation section, since 2009. LADOTD involves the public in a total of five (5) best management practices statewide.

BMP: Adopt-a-Road Program

BMP Description: Inform the public of volunteer opportunities available through the LADOTD sponsored Adopt-a-Road Program.

Summary of Results:

Various organizations contract with the LADOTD to voluntarily collect litter and other debris from state and federal right-of-ways (ROWs). The permittee has established a website dedicated to the recruitment of volunteer organizations by providing general information as well as contact information for the Adopt-a-Road Program. A link to the Adopt-a-Road website has also been established on the permittee's storm water website. The Adopt-a-Road website can be found at the following address: http://www.dotd.la.gov/programs_grants/adopt/home.aspx.

The number of active groups that adopted highway segments within the permittee's urbanized areas or LDEQ-designated areas total 59 in 2012. This accounts for a total of 123.91 miles of adopted highway and 79,505.13 cubic yards of litter collected. Refer to the Measurable Goals Output table in Appendix A for area specifics.

BMP: Storm Water Management Program Document Review

BMP Description: Documents associated with the LADOTD's storm water management program will be made available on the department's storm water website for public review and comment.

Summary of Results:

The reports prepared annually for submission to the LDEQ are available for review and comment on the permittee's website. Every annual report can be found at the following address: http://www.dotd.la.gov/highways/construction/lab/ms4/sitemap.asp. In 2012, the permittee did not receive any comments on the annual reports submitted to the LDEQ.

BMP: Public Information Requests

BMP Description: Respond and provide the necessary documents when appropriate, for information requests from the public.

Summary of Results:

A pdf copy of the *Public Records Request* form is available on the LADOTD website. The form along with instructions for its completion is available at the following address: http://www.dotd.la.gov/downloads/publicrecords.pdf. The permittee received no public records request in 2012. Refer to Appendix H, to view a *Public Records Request* form.

BMP: Reporting System for Public

BMP Description: Establish a system to foster communication between the LADOTD and the public.

Summary of Results:

The permittee has provided the public with a feedback mechanism via the LADOTD storm water website. Using the *Contact Us/Report an Illicit Discharge* page, an individual can ask questions, report suspected illicit discharges, inform the permittee of illegal dump sites, or provide comments on the storm water program to the permittee. Any questions or comments received are answered and if necessary investigated by the LADOTD-Environmental Evaluation Unit (EEU) personnel and then referred to the proper authority for action. The *Contact Us* page can be found at the following web address: http://www.dotd.la.gov/highways/construction/lab/ms4/home.asp?page=contact$. No comments were received by the permittee during the 2012 calendar year.

MCM: Illicit Discharge Detection and Elimination

The permittee has developed three BMP's with a corresponding measureable goal to achieve compliance with the above MCM, illicit discharge detection and elimination. The results, if any, of each BMP are presented below.

BMP: Maintain the MS4 and Outfall Inventory

BMP Description: Update the MS4 outfall map as needed.

Summary of Results:

The permittee has recovered most of the outfall data points gathered during the previous reporting years. We are currently working with the LADOTD Geographic Information Systems (GIS) section and have completed a storm sewer map using GIS technology for 100% of LDEQ designated areas showing outfall locations. During 2013, the EEU will continue to improve maps to include the receiving waters.

BMP: MS4 Outfall Screening

BMP Description: Conduct a visual inspection of MS4 outfalls annually to identify the presence of dry weather discharges.

Summary of Results:

Because the permittee has responsibilities in fifteen areas in the state, the implementation schedule developed by the LADOTD mandated that 20% of all MS4 outfalls be inspected annually. This would assure that every outfall was screened once at a minimum during each permit term. Screenings are done to identify outfalls with illicit discharges and investigate the source of those discharges. The prescribed 20% screening was not obtained. However, our immediate plans include ground-truthing and further use of GIS technology to include assessment of each outfall. This will better enable us to detect illicit discharge throughout the state and, thus allow us to complete the assessment within the permit term. A MS4 outfall survey and an Illicit Discharge Visual Screening form were developed to assist us in this effort. Refer to Appendix P, to view both documents. Finally, no illicit discharge was reported through the LADOTD public website, LADOTD personnel, or the LDEQ.

BMP: Illicit Discharge Employee Training

BMP Description: Educate personnel using the developed training aids for illicit discharge identification.

Summary of Results:

On August 23, 2012, the LADOTD purchased training material from Excal Visual to assist with training our personnel in identifying illicit discharge. The training material consisted of a video titled, "IDDE: A Grate Concern, employee quiz, a trainer's guide, and pocket references. On November 8, 2012, the training was given to members of the EEU. Future plans will include educating other sections in LADOTD. Refer to Appendix G, for an example of the Acknowledgement of Training Form and Quiz.

MCM: Construction Site Storm Water Runoff Control

The permittee has developed five BMPs with a corresponding measureable goal to achieve compliance with the above MCM, construction site storm water runoff control. The results, if any, of each BMP are presented below.

BMP: Construction Inspection Procedures

BMP Description: Develop written construction inspection procedures and forms.

Summary of Results:

Two inspection forms are in use by the permittee. The first is a one page LADOTD document, entitled *Inspection and Maintenance Report Form*. This form is used by the contractor during construction to satisfy the mandatory inspection schedule as required in the general storm water construction permits, LAR100000 and LAR200000 respectively. Used primarily to document structural BMP deficiencies, the form identifies the station number of areas of concern.

The second form, entitled *LADOTD Storm Water Construction Site Inspection Report*, is a three page document used by the certified storm water inspectors (CSIs) of the LADOTD-EEU. This form mirrors the forms used by regulatory agencies by documenting not only structural BMP deficiencies but also procedural insufficiencies, corrective action log errors, storm water pollution prevention plan (SWPPP) deficiencies, etc. Examples of both forms are provided in Appendix I.

A written field guide is currently in development. The purpose of the manual will be to provide written procedures for conducting a storm water inspection at linear construction sites. It will also provide the reader with guidance on BMP selection, installation, and maintenance and how to conduct a file review of storm water related documents. Once completed, the manual will be reviewed by the EEU for approval and then distributed internally.

BMP: Construction Storm Water Pollution Prevention (SWPPP) Review

BMP Description: Develop procedures to require contractors to submit a site specific storm water pollution prevention plan for permittee review and approval.

Summary of Results

Contractors are required to develop a SWPPP with the initial review and approval being done by the project engineer (PE) assigned to the construction site. Additionally, SWPPPs are reviewed for permit compliance during the inspections conducted by the CSIs. During a SWPPP review, deficiencies are noted and recommendations provided to strengthen the document and therefore improve the permittee's ability to reduce sediment laden runoff from its construction sites. In 2012, a total of 16 SWPPPs were reviewed statewide.

BMP: Construction Site Inspection

BMP Description: Inspect LADOTD construction sites that disturb at a minimum of one acre of soil and can potentially discharge runoff to an MS4.

Summary of Results:

In 2012, the permittee identified 16 construction projects within the boundaries of the fifteen permitted areas that disturbed at a minimum of 1 acre of soil. A records review determined that each project was inspected pursuant to the requirements set forth in the LDEQ storm water construction permits. Inspection forms along with other pertinent construction documents are housed at the office of assigned project engineer.

BMP: Construction Community Education

BMP Description: Provide educational opportunities for departmental construction personnel.

Summary of Results:

As part of the permittee's continuing education program, in-house educational opportunities are held at the LADOTD-Louisiana Transportation Research Center (LTRC) on a variety of subjects for departmental personnel. The LADOTD-LTRC hosted a total of two (2) courses led relative to storm water during 2012. Both courses were conducted by private vendors. The dates and courses taught are listed below.

- Thompson Engineering Stormwater Training
  November 20, 2012
- Coping with the New MS4 & Construction Storm Water Permits
  December 14, 2012

If available, the course description of the above classes is in Appendix J.

In addition, permittee representatives attended the Louisiana Solid Waste Association (LSWA) 32nd Annual Environmental Conference held in Lafayette, LA on April 25th – 27th, 2012. Conference attendees included persons from federal, state, local, and private sectors. The Water/Waste Water Track included informational topics on new stormwater regulations and drought impacts on LPDDES discharges. The agenda for the conference can be found in Appendix K.

BMP: Construction Related Public Reporting

BMP Description: Provide the public with a mechanism to report concerns regarding the LADOTD construction sites.

Summary of Results:

As reported previously, the permittee has a feedback mechanism on its storm water website for public use. No comments were received by the permittee during the 2012 calendar year.

In maintaining compliance with LDEQ storm water construction permits, LAR 100000 and LAR200000, a notice is posted near the entrance of each of the LADOTD's construction sites. The notice provides

interested parties with the information needed to comment on the construction project. Per permit regulations, the notices contain the permit number, a brief project description, and the point of contact for the project.

MCM: Post-Construction Storm Water Management in New Development and Re-development

The permittee has developed five BMPs with a corresponding measureable goal to achieve compliance with the above MCM, post construction storm water management in new development and development. The results, if any, of each BMP are presented below.

BMP: New Development and Re-development Plans Review

BMP Description: Review construction plans to assess post-construction runoff.

Summary of Results:

All construction projects are subject to a formal review by several departments at various stages of the plan development process. Phase reviews are held at the 30%, 60%, 90% and plan in hand (95%) completion stages for preliminary plans. Final plans are reviewed at the 60% and 95% completion stages.

Among its many responsibilities, the LADOTD-Hydraulics section has been charged with the task of drainage design and erosion/sediment control plan development and review. In response, the permittee's Hydraulics section has developed manuals to address these functions. The *Hydraulics Manual* provides information on design criteria and procedures in various area types. Specifically, urban drainage design considerations are addressed in Chapter II *Urban Drainage Design* of the *Hydraulics Manual*. A copy of the manual is available on the permittee's website at the following address: http://www.dotd.louisiana.gov/highways/project_devel/design/road_design/Hydraulics%20Manual/01%20La%20DOTD%20Hydraulics%20Manual%20(full%20text).pdf.

Additionally, the LADOTD-Hydraulics section has developed a supplement to the *Hydraulics Manual* entitled *Plan Checking and Design Procedures for Erosion and Sediment Control*. This document provides guidance with regards to both preliminary and final design plan checks. A copy of the narrative portion of the *Hydraulics Manual* supplement, *Plan Checking and Design Procedures for Erosion and Sediment Control* has been provided in Appendix L. A complete copy of the manual can be found on the permittee's website at http://www.dotd.louisiana.gov/highways/project_devel/design/road_design/Erosion%20Control%20Guidelines/00%20La%20DOTD%20Erosion%20Control%20Guidelines%20(Full%20Text).pdf.

To ensure proper installation of erosion control devices, the Hydraulics section has developed standard plan, EC-01, Temporary Erosion Control Details. EC-01 provide installation information on the erosion control devices approved for use on LADOTD construction projects and is attached to all construction plans. EC-01 and an example of the erosion and sediment control symbology used on the permittee's construction plans is provided in Appendix M. The standard plan, EC-01 is also available at http://www.dotd.la.gov/highways/standardplans/DirListing.aspx?txtPath=/highways/standardplans/Standard Plans/Erosion Control and Bedding Material.

Construction plans are developed to indicate where specified erosion controls will be placed, how they are to be installed, and during which phase of construction. Because the permittee's construction plans

are designed with the intent of future modification during subsequent reviews, plans may be altered several times to minimize environmental impacts from erosion and sedimentation. During the plan in hand review, the LADOTD-Hydraulics section compares the plans with field conditions to assess existing or potential erosion problems and verify the future location of temporary and permanent erosion/sediment controls. A copy of the *Plan in Hand Memorandum Review* form can be found in Appendix N, as well on the permittee's website at the address provided below: http://www.dotd.la.gov/highways/project_devel/design/road_design/Standard%20Forms/Plan%20In-Hand%20Review.pdf.

BMP: Development of Project Inspection Procedures

BMP Description: Develop inspection procedures and forms to determine compliance with post construction guidelines.

Summary of Results:

Though inspections occur to assess operational performance, formal documentation of procedures for the inspection of post construction runoff have not been developed.

BMP: New Development and Re-development Project Inspection

BMP Description: Implement inspection program of projects using procedures developed to ensure conformance with post construction guidelines.

Summary of Results:

As stated previously, formal inspection procedures and forms have not been developed. However the *Project Delivery Manual* addresses operational performance post construction. The manual details the six stages of a project and assigns responsibility for each stage. The final stage, Systems Operation and Performance, is put into action once the project has been completed. Project system performance is measured through data collection and evaluation to determine if design procedures need to be modified to improve maintenance and operation of future projects. Of the many tasks completed during this stage, one is to ensure post construction environmental commitments are in compliance. Examples of post construction environmental commitments include post construction erosion controls and water quality monitoring. The responsibility matrix and section entitled, *Compliance with Post Construction Environmental Commitments* from *Chapter 10: Stage 6 Standard Operating Procedure* of the *Project Delivery Manual* are provided in Appendix O for review. A copy of the *Project Delivery Manual* in its entirety is available on the permittee's website at the following address: http://www.dotd.la.gov/doclist.asp?ID=6.

BMP: Protection of Sensitive and/or Impaired Water Bodies

BMP Description: Implement appropriate post construction pollution control strategies for MS4 areas that discharge to LDEQ Section 303(d) List of Impaired Waters.

Summary of Results:

Because the storm sewer map with outfall locations has not been fully developed in all areas, determining the impact of post construction runoff on impaired waters has been limited. The permittee, however, strives to limit polluted runoff from all of its developments through routine maintenance.

Prior to plan development an environmental assessment (EA) is done for the proposed area of development. The EA provides the permittee with information regarding the topography, area structures, etc. If clearance is granted, the results of the EA are considered during plan development. As such all required environmental permits are obtained and strict adherence to permit regulations is followed. *Section 3.6* of *Chapter 3 Design Controls* of the *Road Design Manual* and *Chapter 7* of the *Bridge Design Manual*, both detail the environmental considerations to take in account while developing the construction plan with regard to post construction operation. Both manuals are available at the permittee's website at the following addresses:

Road Design Manual
http://www.dotd.louisiana.gov/highways/project_devel/design/road_design/documents.aspx

Chapter 7 of Bridge Design Manual
http://www.dotd.louisiana.gov/highways/project_devel/design/bridge_design/Bridge%20Design%20English%20Manual/10%20Chapter%207%20-%20Environmental%20Considerations%20and%20Permits.pdf

BMP: Participation in Local Watershed Planning and Modeling

BMP Description: Participate in watershed meetings to stay abreast of current surface water quality issues and regulatory policy changes.

Summary of Results:

No watershed meetings were attended in 2012.

MCM: Pollution Prevention/Good Housekeeping for Municipal Operations

The Louisiana Department of Transportation and Development has created an Activity Guide for the Maintenance Division. The purpose of the manual is to provide personnel with a standard set of procedures for common practices used in the maintenance and preservation of highway surfaces, roadsides, structures, and traffic control devices. Each maintenance activity is assigned a five digit activity code. This code is then used to track the type of maintenance activity performed at specific locations to yield numerical accomplishments. The permittee uses the accomplishments from this system as the measureable goals for a number of the BMPs addressed in this section.

The permittee has developed fourteen BMPs with a corresponding measurable goal to achieve compliance with the above MCM, prevention/good housekeeping for municipal operations. The results, if any, of each BMP are presented below.

BMP: Street Sweeping

BMP Description: Removal of sediment and other debris from MS4 roadways to reduce contaminant levels in street runoff to MS4s.

Summary of Results:

The mechanical cleaning of highway surfaces is listed in the LADOTD's Activity Guide as Sweeper Cleaning, 540-03. In 2012, 2,943.30 miles were swept within the regulated areas. For area specifics, refer to Appendix A.

BMP: Litter Collection

BMP Description: Removal of litter and debris from MS4 right-of ways to reduce floatables in runoff discharge, improve aesthetics, and create safe mowing conditions for departmental personnel.

Summary of Results:

The accomplishments from the following four maintenance activities are used to obtain the measurable goals for the litter collection BMP:

- Litter Cleaning of Roadside, 440-02
- Servicing of Litter Barrels, 440-03
- Pick Up of Litter (Adopt-A-Road), 440-04
- Pick Up of Inmate Litter, 440-05
- Pick Up of Sheriff's Litter, 440-06

A total of 82,289.16 cubic yards of liter was collected from permitted areas and 443 litter barrels were serviced. For area specifics, refer to Appendix A.

BMP: Pesticide Application

BMP Description: Ensure the application of pesticides is done in accordance to manufacturer specification by licensed applicators.

Summary of Results:

The spraying of undesirable vegetation that can cause damage to structures of obstruct drainage is performed by the 58 licensed herbicide applicators the permittee has on staff. Each herbicide applicator is licensed through the Louisiana Department of Agriculture and Forestry (LDAF). In addition to the LADF requirements, the LDOTD necessitates that each licensed applicator obtain continuing education hours through the department annually.

The accomplishments from the following four maintenance activities are used to obtain the measurable goals for the pesticide application BMP:

- Fertilizer Application, 440-10
- Lime Application, 440-11
- Herbicide Application-Hand Method, 440-12
- Herbicide Application-Machine Method, 440-13

Herbicide application staff manually applied 12,298 gallons of herbicides and mechanically sprayed 45,940.06 acres in the LDOTD urbanized and regulated areas. For, area specifics, refer to Appendix A.

BMP: Assess Pavement Preservation Activities

BMP Description: To assess and modify, if necessary, current pavement preservation activities to limit impacts to area surface water.

Summary of Results:

Implementation of this BMP has been limited. After a thorough evaluation, it was decided by members of the EEU to remove this BMP. The permittee has added seven (7) additional BMPs to the Pollution Prevention/Good House Keeping for Municipal Operations section, since 2009. LADOTD demonstrates good house-keeping by using a total of eleven (11) best management practices to prevent pollution statewide.

BMP: Roadside Drainage Maintenance

BMP Description: Non-functioning drainage structures are cleaned, repaired or replaced to improve drainage thereby reducing sediment and floatable discharges and providing safe travel on roadways.

Summary of Results:

The accomplishments from the following six maintenance activities are used to obtain the measurable goals for the roadside drainage maintenance BMP:

- Clean & Maintain Drainage Structures, 450-01
- Drainage Structure Repair, 450-02
- Install Drainage Culverts, 450-03
- Clean & Reshape Ditches-Hand Method, 450-04
- Clean & Reshape Ditches-Machine Method, 450-05
- Install/Replace Inlets & Catch Basins, 450-06

In 2012, maintenance of drainage structures occurred at 12,728.34 locations, 340.10 drainage structures were repaired, and 23 new drainage culverts were installed. 305,783.61 linear feet of ditches were cleaned and reshaped to improve drainage. For area specifics, refer to Appendix A.

BMP: Fleet Maintenance

BMP Description: All equipment and vehicles will adhere to the maintenance schedule provided by the manufacturer to reduce fluid leaks.

Summary of Results:

The permittee assigns all equipment a number according to its class code for tracking purposes. To ensure that the required routine maintenance on all vehicles and equipment is done as prescribed by the manufacturer, the LADOTD-Maintenance Systems Management Section uses two databases to track equipment use. The Maintenance Operations System (MOPS) and Equipment Management System (EQMS) are used not only to track usage rates, fuel transactions, and repairs made but notify the permittee when scheduled maintenance is required. MOPS and EQMS databases are for internal use only and are not made available on the permittee's website; however screen shots of the databases have been made available in Appendix Q.

BMP: Spill Prevention Plans

BMP Description: To comply with federal and state regulations, the permittee will develop spill prevention and control (SPC) plans at its facilities with aboveground storage tanks (ASTs).

Summary of Results:

In 2010, the permittee drafted a questionnaire to survey its facilities statewide. The purpose being to identify facilities with ASTs, the contents of the AST, and the volume typically kept on hand. Using the information gathered from the questionnaire, the LADOTD recognized 33 facilities that would necessitate the development of a SPC plan. During 2012, 9 SPC plans were developed for facilities statewide. A total of sixteen (16) new facilities have been identified as needing an SPC plan. The plans will be developed in 2013. Refer to Appendix R for an example of SPC Questionaire.

BMP: Employee Training

BMP Description: Develop and conduct employee training programs to educate maintenance personnel on a variety of storm water related topics. Training topics will include operation and maintenance

(O&M) procedures for highways, structures, right-of-ways (ROW), equipment, recognizing illicit discharges, materials handling and storage, vegetation management, and pollution prevention BMPs.

Summary of Results:

Most trainings for maintenance personnel is provided in-house through the permittee's LTRC section or the employee's host district training office. Training topics and the number of trainings annually held vary greatly due to the permittee's diverse operations and large workforce. For illustration purposes, listed below are a few of the numerous trainings held in 2012, in the permittee's regulated areas.

Date	Course Number	Course Title	Regulated Area
Monthly	M5011C	Preventative Maintenance of DOTD Vehicles	Statewide
Monthly	M3009A	Cleaning and Clearing of Bridges	Statewide
03/05/2012		What is Stormwater Run-off	New Orleans
05/07/2012		What is a Stormwater Prevention Plan (SWPP)	Houma
11/07/2012		MSDS and Storm Water Training	Hammond

Training records are maintained by the training coordinator assigned to the host district.

BMP: Illegal Dumping

BMP Description: Investigate illegal dumping activities at LADOTD properties to determine the source of materials, report results of investigation to proper authorities and to coordinate remediation efforts.

Summary of Results:

The accomplishment from the maintenance activity, Spill Clean Up, 425-01, is used to obtain the measureable goal for the illegal dumping BMP. In 2012, 622.065 cubic yards were identified within the permitted UAs and LDEQ designated areas as containing illegally dumped materials. The responsible parties were not known nor could be determined; however the discarded materials were removed and properly disposed of by the permittee. For area specifics, refer to Appendix A.

BMP: De-icing/Anti-icing Materials Management

BMP Description: Ensure proper storage and if necessary installation of secondary containment for icing/anti-icing agents. Materials used for ice and snow control will be applied at the prescribed rates to prevent excess from entering neighboring waters.

Summary of Results:

The accomplishments from the following maintenance activities are used to obtain the measureable goals for de-icing/anti-icing materials management BMP.

- Snow & Ice Control, 540-07
- Snow & Ice Control Preparations, 540-08
- Snow & Ice Inspection/Reconnaissance, 540-09

A total of 1280.49 hours were dedicated to the monitoring of road conditions, staging of materials and equipment, and the application of agents to improve travel conditions. For area specifics, refer to Appendix A.

To comply with WE-AO-10-01940, an administrative order issued by the LDEQ to the Louisiana Department of Transportation on December 8, 2010, and permit number LA0125563, the permittee presents the amount of de-icing/agents used throughout the state in Appendix T. During 2012, the permittee applied 119.24 cubic yards of lightweight aggregate and 4300 pounds of salt statewide. For area specifics, refer to Appendix S.

BMP: Bulk Materials Management

BMP Description: Stockpiles are to be stored in designated areas and inventoried regularly to determine loss of materials due to erosion.

Summary of Results:

The proper management of stockpiles can minimize environmental impacts and reduce replacement costs. This is accomplished through the use of designated areas for each type of material. Erosion controls are implemented near stockpiles that are prone to precipitation and wind erosion.

The accomplishment from the maintenance activity, Material Handling & Stockpiling, 630-03, is used to obtain the measureable goal for bulk materials management BMP. Maintenance personnel dedicated 6,425 hours to the loading, hauling, unloading, and inventory of bulk materials during the 2012 calendar year. For area specifics, refer to Appendix A.

BMP: Bridge and Structure Maintenance

BMP Description: The removal of debris from bridge structures to improve drainage and appearance.

Summary of Results:

The accomplishments from the following maintenance activities are used to obtain the measureable goals for the bridge and structure maintenance BMP.

- Clean Structural Members, 465-00
- Clean Deck & Drain, 465-01
- Remove Drift, 465-17

98,394.20 linear feet of drainage structures were cleaned by removing waste from deck drains and lines. The removal of debris from girders, caps, etc. so as to prevent corrosion was completed at 80 locations and trash was removed from 169 locations near bridge drainage structures and culverts in 2012. Refer to Appendix A to obtain area specifics.

BMP: Erosion and Sediment Control

BMP Description: The removal of debris from bridge structures to improve drainage and appearance.

Summary of Results:

The accomplishments from the maintenance activity, Erosion Control and Repair, 440-00, is used to obtain the measureable goal for the erosion and sediment control BMP. Erosion and sediment control practices were implemented at 857 locations within the LADOTD permitted areas. These practices include the backfilling of minor washouts or cuts and the repair of slopes. Refer to Appendix A for area specifics.

Looking Ahead: Storm Water Activities for 2013

This section will fulfill the below annual report requirement from the 2007 general permit.

> *A summary of the storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule).*

The LADOTD is continuing the use of the GIS Section to help address conventional storm water monitoring requirements. We are currently developing a map layer to identify the 303.d. water bodies across the state. With this technology, we foresee our ability to identify and confirm outfall locations and assessment of these outfalls to be expected during 2013 and beyond. Additionally, the LADOTD hopes to share its application of GIS technology with other regulated entities (state, parish, and local) and the LDEQ as a synergistic approach to storm water compliance. We will work with interested stakeholders to develop workshops to meet this approach.

Storm Water Management Program Changes

The *Storm Water Management Program Changes* section will fulfill the below annual report requirement from the 2007 general permit.

> *Proposed changes to your Storm Water Management Program, including changes to any BMPs or any identified measureable goals that apply to the program elements.*

The LADOTD has made significant progress in the completion of a storm water system map for the urbanized and LDEQ designated areas. Future plans will be to modify the implementation schedule in the upcoming year with regard to the BMP, "Maintain the MS4 and Outfall Inventory." The revised implementation schedule will be presented in next year's annual report.

Sharing Responsibility

The section entitled *Sharing Responsibility* will fulfill the below annual report requirement from the 2007 general permit.

> *Notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable).*

The LADOTD does not rely on any other government entity and wholly accepts the responsibility to satisfy its permit obligations entirely.

Appendix A

Measurable Goals Activity Tables I-XV

Table I

LDEQ-designated regulated area: **Abbeville**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-up Information	425-01	Each	1
Drainage Maintenance	Erosion Control & Repair	440-00	Each	2
	Clean & Maintain Drainage Structures	450-01	Each	10
	Drainage Structure Repair	450-02	Each	0
	Drainage Culverts Installed	450-03	Each	0
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	1200.00
	Install/Replace Inlets& Catch Basins	450-06	Each	0
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	0
Adopt-a-Road	Number of Active Groups		Each	0
	Number of Miles Adopted		Miles	0
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	0
	Herbicide Application-Machine Method	440-13	Acres	171
	Number of Licensed Applicators		Each	1
	Number of Trainings		Each	0
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	0
	Clean Deck & Drain	465-01	Linear Feet	69818.60
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	0
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	0
	Snow & Ice Control Preparations	540-08	Hours	0
	Snow & Ice Inspection/Reconnaissance	540-09	Hours	0
Bulk Materials Management	Material Handling & Stock Piling	630-03	Hours	14
Construction Site Inspections	Number of CSI Inspections		Each	0

Table II

UA: **Alexandria**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-Up Information	425-01	Each	12
Drainage Maintenance	Erosion Control & Repair	440-00	Each	369
	Clean & Maintain Drainage Structures	450-01	Each	1056.00
	Drainage Structure Repair	450-02	Each	5
	Drainage Culverts Installed	450-03	Each	0
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	0
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	30131.30
	Install/Replace Inlets & Catch Basins	450-06	Each	1
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	26
Adopt-a-Road	Number of Active Groups		Each	3
	Number of Miles Adopted		Miles	4.40
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	11283.25
	Herbicide Application-Machine Method	440-13	Acres	2527.0
	Number of Licensed Applicators		Each	2
	Number of Trainings		Each	0
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	2
	Clean Deck & Drain	465-01	Linear feet	2609
	Remove Drift	465-17	Each	3
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	248.2
De-icing/Anti-Icing Materials Management	Snow & Ice Control	540-07	Hours	152
	Snow & Ice Preparations	540-08	Hours	5.99
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	22.5
	Manual Cleaning of Roads	540-04	Miles	0
Bulk Materials Management	Material Handling & Stockpiling	630-03	Hours	130
Construction Site Inspections	Number of CSI Inspections		Each	3

Table III

LDEQ-designated regulated area: **Bastrop**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-Up Information	425-01	Each	0
Drainage Maintenance	Erosion Control & Repair	440-00	Each	31
	Clean & Maintain Drainage Structures	450-01	Each	232
	Drainage Structure Repair	450-02	Each	0
	Drainage Culverts Installed	450-03	Each	0
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	0
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	0
	Install/Replace Inlets & Catch Basins	450-06	Each	0
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	100
Adopt-a-Road	Number of Active Groups		Each	4
	Number of Miles Adopted		Miles	4
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	0
	Herbicide Application-Machine Method	440-13	Acres	3264
	Number of Licensed Applicators		Each	1
	Number of Trainings		Each	0
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	0
	Clean Deck & Drain	465-01	Linear feet	5700
	Remove Drift	465-17	Each	22
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	
De-icing/Anti-Icing Materials Management	Snow & Ice Control	540-07	Hours	0
	Snow & Ice Preparations	540-08	Hours	0
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	1
	Manual Cleaning of Roads	540-04	Miles	0
Bulk Materials Management	Material Handling & Stockpiling	630-03	Hours	14.5
Construction Site Inspections	Number of CSI Inspections		Each	5

Table IV

UA: **Baton Rouge**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean Up	425-01	Each	146.75
Drainage Maintenance	Erosion Control & Repair	440-00	Each	123.50
	Clean & Maintain Drainage Structures	450-01	Each	725.70
	Drainage Structure Repair	450-02	Each	31.0
	Drainage Culverts Installed	450-03	Each	5.0
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	1700
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	47057.26
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	1067.33
Adopt-a-Road	Number of Active Groups		Each	
	Pick Up of Litter Collected	440-04	Cubic yards	72.56
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	280
	Herbicide Application-Machine Method	440-13	Acres	6902
	Number of Licensed Applicators		Each	6
	Number of Trainings		Each	1
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	0
	Clean Deck & Drain	465-01	Linear Feet	1050
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	626.52
Deicing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	25
	Snow & Ice Preparations	540-08	Hours	4
	Snow & Ice Inspection/Reconnaissance	540-09	Hours	57.5
Bulk Materials Management	Material Handling & Stockpiling	630-03	Hours	204
Construction Site Inspections	Inspections Performed by CSI		Each	6

Table V

LDEQ-designated regulated area: **Hammond**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-up Information	425-01	Each	3
Drainage Maintenance	Erosion Control & Repair	440-00	Each	25.00
	Clean & Maintain Drainage Structures	450-01	Each	467.00
	Drainage Structure Repair	450-02	Each	7
	Drainage Culvert Installed	450-03	Each	0
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	39650.00
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	7650.00
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	117.60
	Servicing Litter Barrels	440-03	Each	440.00
	Pick up Inmate Litter CEA w/DPS&C	440-05	Cubic yards	180.00
Adopt-a-Road	Number of Active Groups		Each	3
	Number of Miles Adopted		Miles	5.6
	Pick up of Litter	440-04	Cubic yards	41.00
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	19895.00
	Herbicide Application-Machine Method	440-13	Acres	3221.00
	Number of Licensed Applicators		Each	7
	Number of Trainings		Each	8
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	0
	Clean Deck & Drain	465-01	Linear Feet	0
	Remove Drift	465-17	Each	53
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	41.99
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	0
	Snow & Ice Preparations	540-08	Hours	0
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	0
Bulk Materials Management	Material Handling & Stockpiling	630-03	Hours	389.00
Construction Site Inspections	Number of CSI Inspections		Each	0

Table VI

UA: **Houma**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-up Information	425-01	Each	16
Drainage Maintenance	Erosion Control & Repair	440-01	Each	90
	Clean & Maintain Drainage Structures	450-00	Each	85
	Drainage Structure Repair	450-02	Each	17
	Drainage Culvert Installed	450-03	Each	2
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	4161.00
	Clean & Reshape Ditches-Machine Method	450-05	Linear feet	1953.00
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	149.00
	Servicing Litter Barrels	440-03	Each	
	Pick Up Inmate Litter CEA w/DPS&C	440-05	Cubic yards	
Adopt-a-Road	Number of Active Groups		Each	6
	Number of Miles Adopted		Miles	45.0
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	216.00
	Herbicide Application-Machine Method	440-13	Acres	3834.50
	Number of Licensed Applicators		Each	2
	Number of Trainings		Each	11
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	0
	Clean Deck & Drain	465-01	Linear Feet	0
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	3
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	0
	Snow & Ice Preparations	540-08	Hours	0
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	0
Bulk Materials Management	Material Handling & Stockpiling	630-03	Hours	216.50
Construction Site Inspections	Number of CSI inspections		Each	0

Table VII

UA: **Lafayette**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-up Information	425-01	Each	46.45
Drainage Maintenance	Erosion Control & Repair	440-00	Each	37
	Clean & Maintain Drainage Structures	450-01	Each	1564.5
	Drainage Structure Repair	450-02	Each	77.1
	Drainage Culverts Installed	450-03	Each	2
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	1.46
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	36261.39
	Install/Replace Inlets & Catch Basins	450-06	Each	13
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	13
	Servicing Litter Barrels	440-03	Each	0
	Pick Up Inmate Litter CEA w/DPS & C	440-05	Cubic yards	3
Adopt-a-Road	Number of Active Groups		Each	6
	Number of Miles Adopted		Miles	4.20
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	6218.50
	Herbicide Application-Machine Method	440-13	Acres	3209.01
	Number of Licensed Applicators		Each	6
	Number of Trainings		Each	1
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	0
	Clean Deck & Drain	465-01	Linear Feet	2770
	Remove Drift	465-17	Each	6
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	303.38
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	154.50
	Snow & Ice Preparations	540-08	Hours	58
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	16
Bulk Materials Management	Material Handling & Stockpiling	630-03	Hours	60.50
Construction Site Inspections	Inspections Performed by CSI		Each	4

Table VIII

UA: **Lake Charles**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-Up Information	425-01	Each	77.75
Drainage Maintenance	Erosion Control & Repair	440-00	Each	110
	Clean & Maintain Drainage Structures	450-01	Each	723.50
	Drainage Structure Repair	450-02	Each	45
	Drainage Culvert Installed	450-03	Each	1
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	0.2
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	23107.70
	Install/Replace Inlets & Catch Basins	450-06	Each	0
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	23
	Pick Up of Inmate Litter CEA w/DPS&C	450-05	Cubic yards	2175
Adopt-a-Road	Number of Active Groups		Each	0
	Number of Miles Adopted		Miles	0
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	6630.25
	Herbicide Application-Machine Method	440-13	Acres	3869.65
	Number of Licensed Applicators		Each	5
	Number of Trainings		Each	1
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	8
	Clean Deck & Drain	465-01	Linear Feet	73219
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	219.26
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	0
	Snow & Ice Preparations	540-08	Hours	0
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	0
Bulk Materials Management	Materials Handling & Stockpiling	630-03	Hours	4549.50
Construction Site Inspections	Inspections Performed by CSI		Each	1

Table IX

UA: **Mandeville-Covington**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-Up Information	425-01	Each	1
Drainage Maintenance	Erosion Control & Repair	440-00	Each	1
	Clean & Maintain Drainage Structures	450-01	Each	7
	Drainage Structure Repair	450-02	Each	11
	Drainage Culvert Installed	450-03	Each	1
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	0
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	2.10
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	6.0
	Servicing Litter Barrels	440-03	Each	300
	Pick Up of Inmate Litter CEA w/DPS&C	440-05	Cubic yards	1910
Adopt-a-Road	Number of Active Groups		Each	1
	Number of Miles adopted		Miles	1
Pesticide Application	Herbicide Application-Machine Method	440-13	Acres	2388.7
	Number of Licensed Applicators		Each	7
	Number of Trainings		Each	7
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	0
	Clean Deck & Drain	465-01	Linear Feet	0
	Remove Drift	465-17	Each	85
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	19.40
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07		0
	Snow & Ice Preparations	540-08		0
	Snow & Ice Inspections/Reconnaissance	540-09		0
Bulk Materials Management	Materials Handling & Stockpiling	630-03	Hours	59.00
Construction Site Inspections	Number of CSI Inspections		Each	0

Table X

UA: **Monroe**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-Up Information	425-01	Each	30
Drainage Maintenance	Erosion Control & Repair	440-00	Each	20
	Clean & Maintain Drainage Structures	450-01	Each	1056.00
	Drainage Structure Repair	450-02	Each	0
	Drainage Culvert Installed	450-03	Each	0
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	110
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	51
	Install/Replace Inlets & Catch Basins	450-06	Each	0
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	0
Adopt-a-Road	Number of Active Groups		Each	0
	Number of Miles Adopted		Miles	0
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	18.5
	Herbicide Application-Machine Method	440-13	Acres	676
	Number of Licensed Applicators		Each	2
	Number of Trainings		Each	0
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	
	Clean Deck & Drain	465-01	Linear feet	128
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	1135.65
De-icing/Anti-Icing Materials Management	Snow & Ice Control	540-07	Hours	0
	Snow & Ice Preparations	540-08	Hours	0
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	0
	Manual Cleaning of Roads	540-04	Miles	4740
Bulk Materials Management	Materials Handling & Stockpiling	630-03	Hours	1
Construction Site Inspections	Number of CSI Inspections		Each	5

Table XI

LDEQ-designated regulated area: **Morgan City**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-Up Information	425-01	Each	9.25
Drainage Maintenance	Erosion Control & Repair	440-00	Each	3
	Clean & Maintain Drainage Structures	450-01	Each	515.64
	Drainage Structure Repair	450-02	Each	6
	Drainage Culvert Installed	450-03	Each	5
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	0
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	9262.157
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	880
	Servicing Litter Barrels	440-03	Each	0
	Pick Up of Inmate Litter CEA w/DPS&C	440-05	Cubic yards	0
Adopt-a-Road	Number of Active Groups		Each	1
	Number of Miles adopted		Miles	1
Pesticide Application	Herbicide Application-Hand Method	440-12	Acres	6600
	Herbicide Application-Hand Method	440-13	Acres	769.20
	Number of Licensed Applicators		Each	1
	Number of Trainings		Each	0
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	4.5
	Clean Deck & Drain	465-01	Linear Feet	69818.6
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	19.40
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	188
	Snow & Ice Preparations	540-08	Hours	6.5
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	0
Bulk Materials Management	Materials Handling & Stockpiling	630-03	Hours	8.0
Construction Site Inspections	Number of CSI Inspections		Each	0

Table XII

LDEQ-designated regulated area: **Natchitoches**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-up Information	425-01	Each	4
Drainage Maintenance	Erosion Control & Repair	440-00	Each	12
	Clean & Maintain Drainage Structures	450-01	Each	14
	Drainage Structure Repair	450-02	Each	101
	Drainage Culvert Installed	450-03	Each	0
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	0
	Install/Replace Inlets & Catch Basins	450-06	Each	0
Litter Collection	Litter Cleaning of Roadside	440-2	Cubic yards	0
Adopt-a-Road	Number of Active Groups		Each	4
	Number of Miles Adopted		Miles	7.212
Pesticide Application	Herbicide Application-Hand Method	440-12	Acres	0
	Herbicide Application-Machine Method	440-13	Acres	826
	Number of Licensed Applicators		Each	1
	Number of trainings		Each	0
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	0
	Clean Deck & Drain	465-01	Linear Feet	2245
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	0
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	28.5
	Snow & Ice Preparations	540-08	Hours	0
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	7
Bulk Materials Management	Materials Handling & Stockpiling	630-03	Hours	173.0
Construction Site Inspections	Number of CSI		Each	3

Table XIII

UA: **New Orleans**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-Up Information	425-01	Each	124.865
Drainage Maintenance	Erosion Control & Repair	440-00	Each	4
	Clean & Maintain Drainage Structures	450-01	Each	6226.00
	Drainage Structure Repair	450-02	Each	24.0
	Drainage Culvert Installed	450-03	Each	0
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	3210.38
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	25178.10
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	77078.8
Adopt-a-Road	Number of Active Groups		Each	26
	Number of Miles Adopted		Miles	45
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	40500.0
	Herbicide Application-Machine Method	440-13	Acres	13070.0
	Number of Licensed Applicators		Each	11
	Number of Trainings		Each	35
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	65
	Clean Deck & Drain	465-01	Linear Feet	1854.00
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	9243.39
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	0
	Snow & Ice Preparations	540-08	Hours	0
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	0
Bulk Materials Management	Material Handling & Stockpiling	630-03	Hours	479.5
Construction Site Inspections	Number of CSI Inspections		Each	

Table XIV

UA: **Shreveport**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-Up Information	425-01	Each	71.0
Drainage Maintenance	Erosion Control & Repair	440-00	Each	15
	Clean & Maintain Drainage Structures	450-01	Each	39
	Drainage Structure Repair	450-02	Each	9.0
	Drainage Culvert Installed	450-03	Each	5.0
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	9.0
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	0
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	4.0
Adopt-a-Road	Number of Active Groups		Each	4.0
	Number of Miles Adopted		Miles	4.0
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	23.0
	Herbicide Application-Machine Method	440-13	Acres	101.0
	Number of Licensed Applicators		Each	1.0
	Number of Trainings		Each	0
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	1.0
	Clean Deck & Drain	465-01	Linear Feet	0
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	0
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	0
	Snow & Ice Preparations	540-08	Hours	607.0
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	0
Bulk Materials Management	Materials Handling & Stockpiling	630-03	Hours	40
Construction Site Inspections	Number of CSI Inspections		Each	

Table XV

UA: **Slidell**

BMP	Measurable Goal	Function Code	Unit of measurement	Quantity
Illegal Dumping	Spill Clean-Up	425-01	Each	100.0
Drainage Maintenance	Erosion Control & Repair	440-00	Each	3.5
	Clean & Maintain Drainage Structures	450-01	Each	7
	Drainage Structure Repair	450-02	Each	7
	Drainage Culvert Installed	450-03	Each	2
	Clean & Reshape Ditches-Hand Method	450-04	Linear feet	0
	Clean & Reshape Ditches-Machine Method	450-05	Linear Feet	1.3
Litter Collection	Litter Cleaning of Roadside	440-02	Cubic yards	63.40
	Servicing Litter Barrels	440-03	Each	0
	Pick up Inmate Litter CEA w/DPS&C	440-05	Cubic yards	0
Adopt-a-Road	Number of Active Groups		Each	1
	Number of Miles Adopted		Miles	2.5
Pesticide Application	Herbicide Application-Hand Method	440-12	Gallons	1033.00
	Herbicide Application-Machine Method	440-13	Acres	1990
	Number of Licensed Applicators		Each	7
	Number of Trainings		Each	0
Bridge & Structure Maintenance	Clean Structural Members	465-00	Each	0
	Clean Deck & Drain	465-01	Linear Feet	0
	Remove Drift	465-17	Each	0
Street Sweeping	Mechanical Cleaning of Roads	540-03	Miles	0
De-icing/Anti-icing Materials Management	Snow & Ice Control	540-07	Hours	0
	Snow & Ice Preparations	540-08	Hours	0
	Snow & Ice Inspections/Reconnaissance	540-09	Hours	0
Bulk Materials Management	Materials Handling & Stockpiling	630-03	Hours	57.00
Construction Site Inspections	Number of CSI Inspections	630-03	Hours	0

Appendix B

After the Storm Brochure

&

Understanding Water Brochure

After the Storm

A Citizen's Guide to Understanding Stormwater

WHEN IT RAINS IT DRAINS

THE YEAR OF CLEAN WATER

EPA

EPA 833-B-03-002

January 2003

For more information contact:

or visit
www.epa.gov/npdes/stormwater
www.epa.gov/nps

WHEN IT RAINS IT DRAINS

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

- Pollutes stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

The effects of pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.

Get Involved

Volunteers are encouraged to adopt sections of state or federal highways to keep clean. All supplies are provided by the department. Contact the LA DOTD's customer service to be connected with an Adopt-A Road coordinator in your area.

Call 1-877-4LA-DOTD to contact customer service.

You see someone sweeping yard waste into a storm drain, dumping debris in a vacant lot, or a storm water pipe or ditch discharging during dry weather. What should you do? Report it! These activities are not only harmful to the environment but illegal. Call customer service or report the incident online at www.dotd.la.gov/highways/construction/lab/ms4/home.asp?page=contact$

And finally, educate others of the effect of storm water pollution.

DOTD

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

FOR ADDITIONAL INFO CONTACT

Louisiana Department of Transportation & Development's Materials and Testing Section

5080 Florida Blvd.
Baton Rouge, LA 70806
Phone: 225-248-4141

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Understanding Stormwater

Louisiana's on the move
DOTD builds the way

http://www.dotd.la.gov/highways/construction/lab/ms4/home.asp

So what exactly is stormwater runoff?

Runoff occurs when precipitation does not infiltrate into the ground. As precipitation travels across impervious surfaces numerous pollutants such as oil, sediment , bacteria and paper are accumulated by this runoff. The polluted runoff is then collected and transported via a storm sewer system and discharged into nearby surface waters.

And this is a problem because.....

Stormwater runoff is NOT TREATED! Unlike other process waters such as wastewater, stormwater runoff has no treatment process prior to discharge.

Pollution Prevention Tips

On the road.....

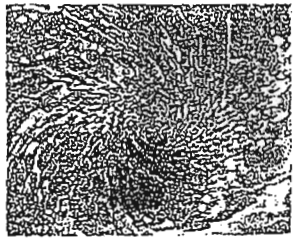
- Paper and cigarette butts are a public nuisance common to the road. Roadside litter is not only unsightly, but lead to drainage problems. Put trash in its place and properly discard it in a garbage can.
- Hitting the open road with your travel trailer in tow is a great way to see the country, however when the trip ends remember to dispose of sewage at an approved dumping site. Improperly discharged sewage contain excess nutrients, harmful bacteria and viruses which are carried into waterways.
- While taking your pet on a drive can be fun, you will eventually stop to let your dog "go." Just remember to scoop the poop! Pet waste should be bagged and properly discarded in the trash.
- Ensure that your vehicle is properly maintained. Leaks should be immediately repaired and all fluids recycled at designated locations.

While at home....

- Hazardous materials such as paint or petroleum products should never be poured into a storm drain or roadside ditch. Items such as these should be disposed of at area collection centers.
- Common household items are often found in stormwater discharges. Chemical yard treatments such as fertilizers and pesticides should be used sparingly and according to manufacturer's specifications.
- Leaves and grass clippings left in the street or discarded into storm drains is a major contributor to polluted runoff. Sweep and collect yard debris for curbside disposable or consider composting.

Salt vs. Fresh?

Both pool types can have a detrimental impact to area water bodies. Often homeowners drain their pools by discharging the water in a nearby storm drain. However, do not underestimate the impact draining your pool can have downstream. Elevated levels of chlorine or the introduction of salt water into a fresh water system can damage plant and wildlife. If draining because necessary, then ensure prior to discharge the concentration levels fall below normal to reduce the risk of impact.



Because when it rains, it drains!

Appendix C

Make Changes, Be the Solution! Poster

MAKE CHANGES! BE THE SOLUTION!

Everything you blow, spray, pour or throw on the ground can get washed down the storm drain – polluting Louisiana's waters

- Recycle oil
- Use less fertilizer and pesticides
- Mulch or bag grass clippings
- Bag pet waste
- Don't litter

DEQ LOUISIANA EPA Find out more at: WWW.DEQ.LOUISIANA.GOV

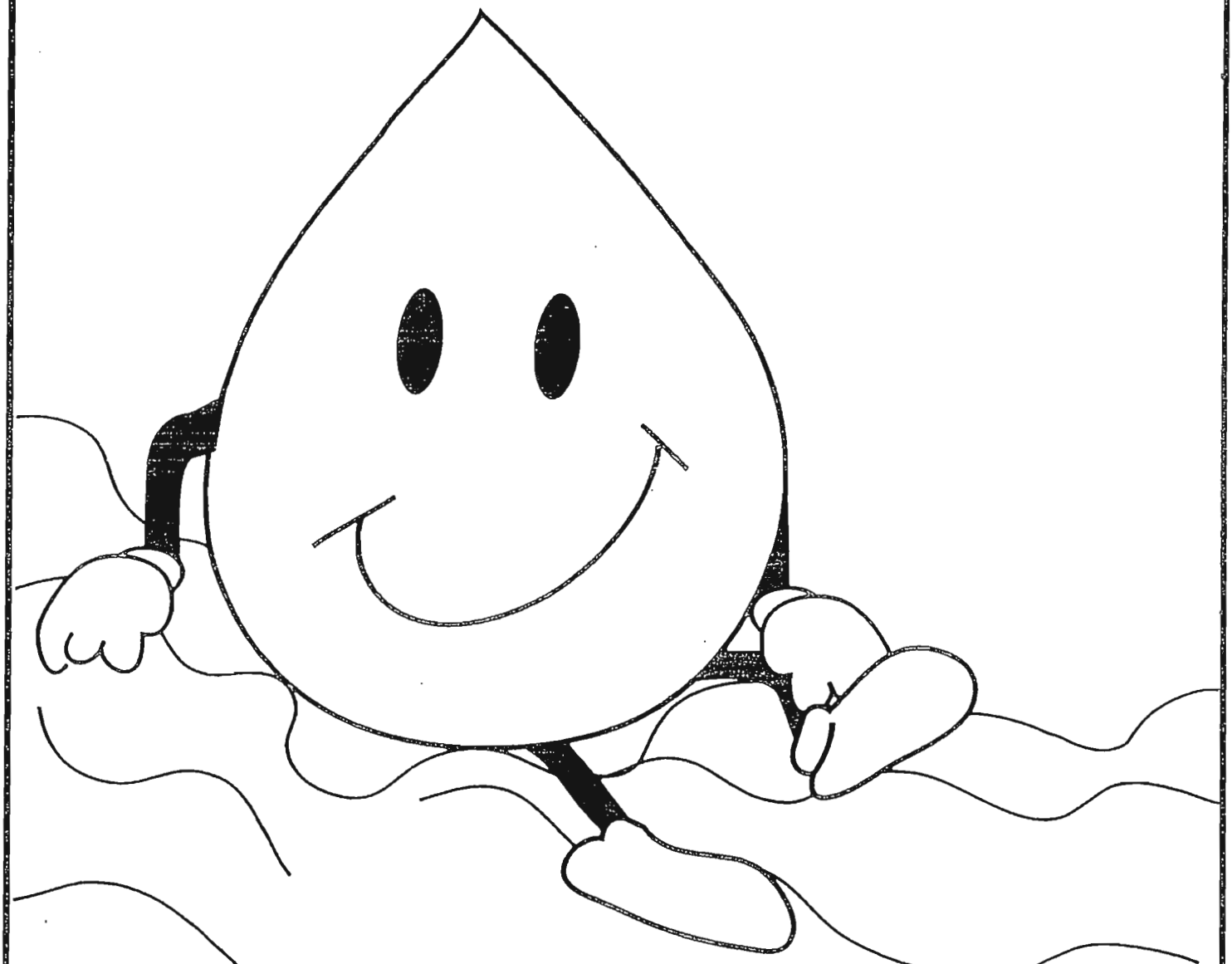
Appendix D

Educational Materials Packet

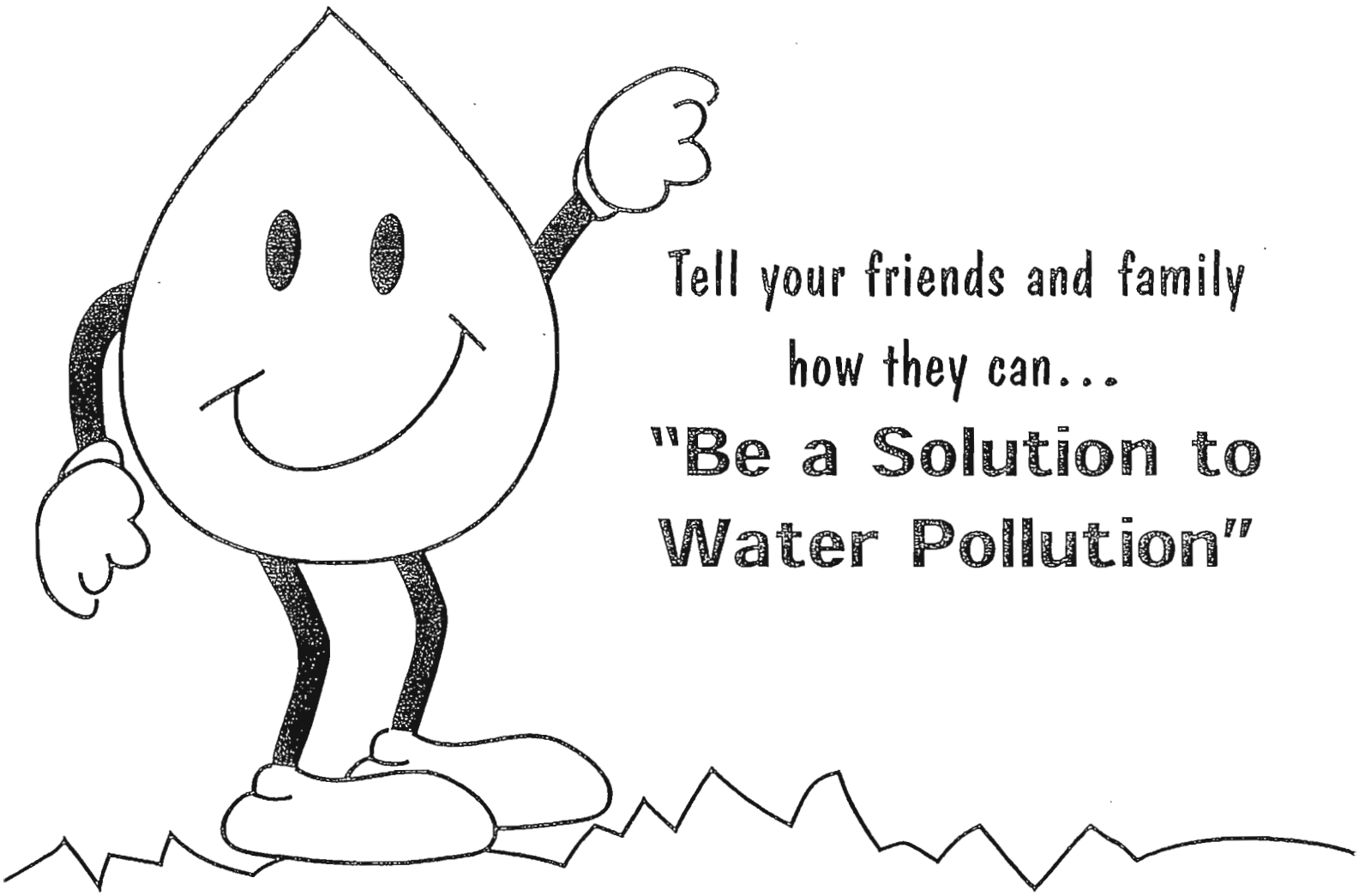
ACTIVITY BOOKLET

Be a Solution to Water Pollution

ACTIVITY BOOK



Have you ever walked next to a stream and seen trash floating in the water? Do you know how it gets there? Every time it rains, the water runs off the land and picks up pollutants such as dirt, oil, pet waste, litter, trash, pesticides and fertilizers. This polluted water flows into street drains and ditches that eventually drain to waterways. Never dump anything that you would not want to drink or swim in on the ground, in the street or down a storm drain. It will go into a river, lake or stream.

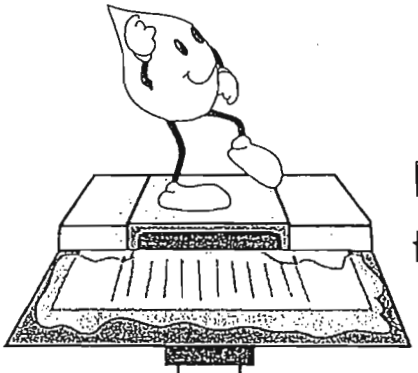


Tell your friends and family how they can...

"Be a Solution to Water Pollution"

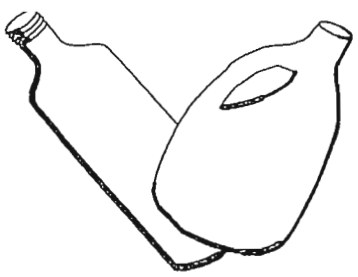
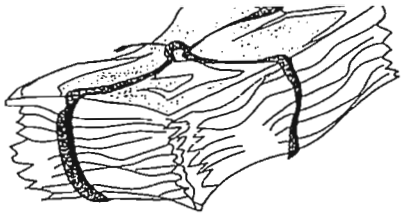
Can you find all of the things in the creek that do not belong?

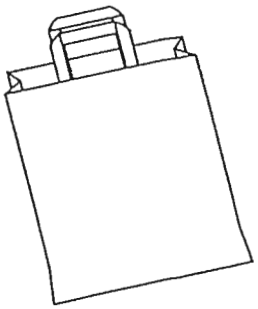
Waterdrops go through an amazing journey to get to streams and creeks.



Please help this raindrop to find his way home through the drain and into the nearest river.

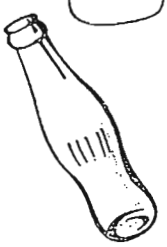
It is important to cleanup after your dog. Every time it rains, "poop" is collected by rainwater and dumped into a nearby storm drain or into a river, lake or stream. Carry a plastic or paper bag with you to pick-up after dogs and throw it in the trash.



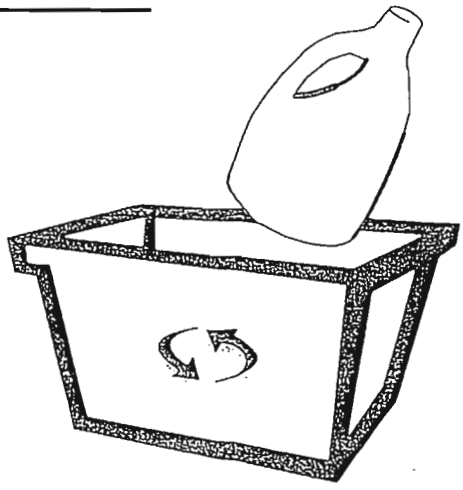
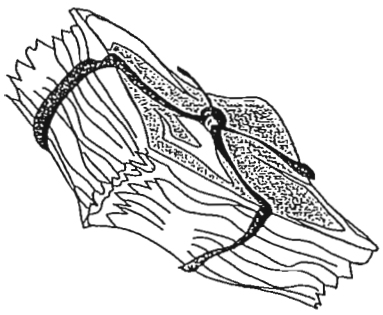
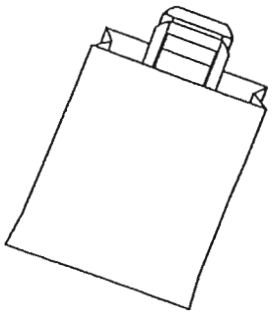

We can "Be a Solution to Water Pollution" by recycling cans, bottles, milk jugs, plastic bags and newspapers at home or in school.


Below is a list of scrambled words, which stands for items that can be recycled.

1. wspeprane _____
2. lsgas _____
3. ttlesob _____
4. slaptic _____
5. likm sugj _____
6. ulamniunm acns _____

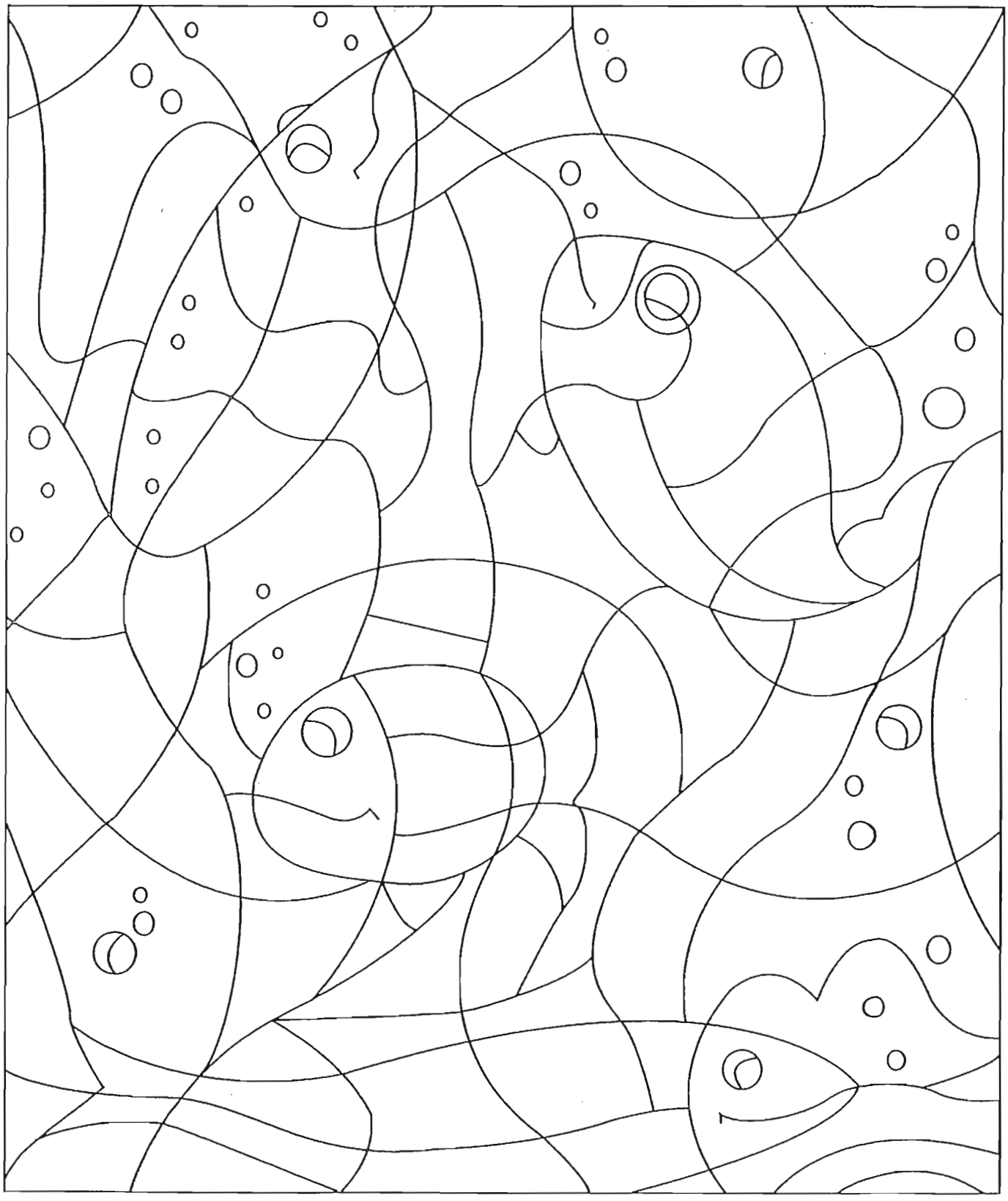



Answers: 1. newspaper, 2. glass, 3. bottles, 4. plastic, 5. milk jugs, 6. aluminum cans

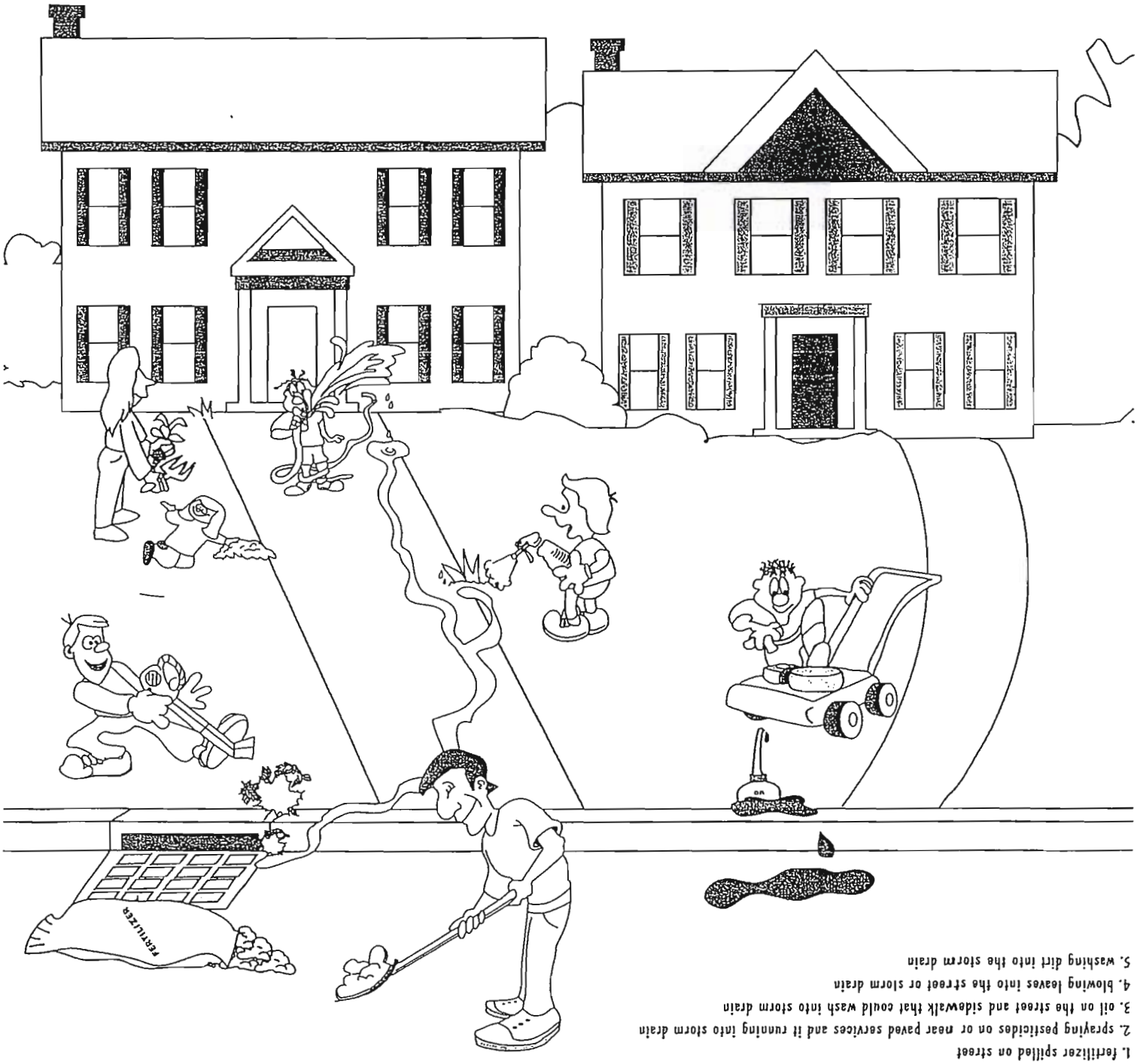
Fish and other aquatic life rely on clean water. Plastic bags, oil, other chemicals and other pollutants cause harm to fish.

Find the fish and color them in.



Working in the garden or on a lawn is a fun activity to do with grown-ups. When helping to clean a yard, remember not to dump anything down a storm drain or in the street. Can you find what is wrong with this picture?

Circle the mistakes that the people in this drawing are making.



Answers:
1. fertilizer spilled on street
2. spraying pesticides on or near paved services and it running into storm drain
3. oil on the street and sidewalk that could wash into storm drain
4. blowing leaves into the street or storm drain
5. washing dirt into the storm drain

Good job! Ask your parent, teacher or troup leader to help you cut out your badge.

LOUISIANA DEPARTMENT OF
TRANSPORTATION & DEVELOPMENT

For additional information please visit our website at

http://www.dotd.la.gov/highways/construction/lab/ms4/home.asp

or contact

Louisiana Department of Transportation & Development

Materials and Testing Section

5080 Florida Blvd.

Baton Rouge, LA 70806

Phone: 225-248-4141

You too can help! Please visit

DOTD Adopt-A-Road Program:
http://www.dotd.la.gov/programs_grants/adopt/home.aspx

Keep Louisiana Beautiful:
http://keeplouisianabeautiful.org/

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Clean Water Campaign

40 Courtland Street, NE

Atlanta, GA 30303

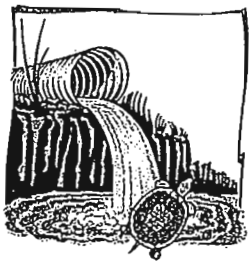
Email: info@cleanwatercampaign.com

Website: http://www.cleanwatercampaign.com/html/index.htm

STICKERS

GIVE WATER A HAND

DIRT IN THE DRAIN

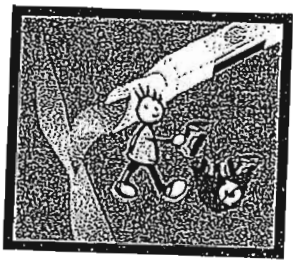


TURTLES COMPLAIN

Clean Water

I Can Help!

MAKE A SPLASH

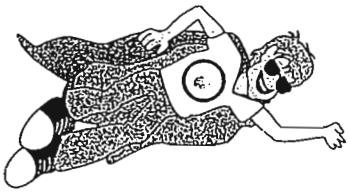


CLEAN UP YOUR TRASH

WHEN IT RAINS

Muck! Yuck!

Sad Duck



I'm a

CLEAN WATER ACTION HERO

Leaves don't belong in the stormdrain

Junk from the Gutter

Makes us Sputter

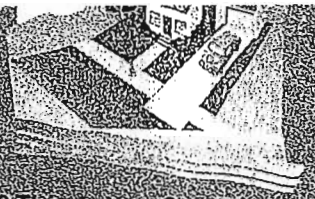
Please Don't Pour

That's Our Front Door

Oil & Water

Please Don't Mix!

BOOKMARK



10 Things You Can Do to Prevent Stormwater Runoff Pollution

- Use fertilizers sparingly and sweep up driveways, sidewalks, and gutters
- Never dump anything down storm drains or in streams
- Vegetate bare spots in your yard
- Compost your yard waste
- Use least toxic pesticides, follow labels, and learn how to prevent pest problems
- Direct downspouts away from paved surfaces; consider a rain garden to capture runoff
- Take your car to the car wash instead of washing it in the driveway
- Check your car for leaks and recycle your motor oil
- Pick up after your pet
- Have your septic tank pumped and system inspected regularly

EPA United States Environmental Protection Agency

For more information, visit
www.epa.gov/nps or
www.epa.gov/npdes/stormwater

Appendix E

LPB Contracts and Broadcast Schedule

UNDERWRITING AGREEMENT:
Louisiana Public Broadcasting
7733 Perkins Road, Baton Rouge, LA 70810-1199
(225) 767-4466
(225) 767-4421 (FAX)
Jeanne S. Smith, Underwriting Director
jsmith@lpb.org

Louisiana Department of Transportation & Development: FELPB general support during prime time 2012-2013 (Page 1 of 2)

Louisiana Dept. of Transportation and Development	Alberetta R. Batiste, Environmental Impact Spec.
Sponsoring Company Name:	**Contact Name and Title:**
5080 Florida Boulevard	Baton Rouge, LA 70806
Address:	**City, State and Zip:**
(225) 248-4178	(225) 248-4204/Alberetta.batiste@la.gov
Phone Number:	**Fax Number/email:**

This document will serve to verify and specify the conditions relating to an agreement between the Foundation for Excellence in Louisiana Public Broadcasting (FELPB) and the Louisiana Department of Transportation & Development Materials and Testing Section for providing general support to programming broadcast on Louisiana Public Broadcasting, (LPB):

General-support announcements

Agreement period: May 30, 2012-May 29, 2013

Promotional Considerations:

Louisiana Department of Transportation & Development Materials and Testing Section will receive the following promotional considerations:

- Twenty, 20, (:30 second) messages supporting DOTD's Storm Water Campaign. Messages will air Sunday through Saturday during prime-time and How-to programming, May 30, 2012 through May 29, 2013.
- Twenty, 20, (:30 second) BONUS messages supporting DOTD's Storm Water Campaign, also airing Sunday through Saturday during prime-time and How-to programming, May 30, 2012 through May 29, 2013.
- Messages should air, four 3-4 per month, over the year-long schedule.
- One (1) "In Good Company" feature article in LPB Visions magazine.
- Acknowledgement in the underwriter's section of Visions as a general support underwriter.
- Acknowledgement in the underwriter's section of LPB.org.
- Louisiana Department of Transportation & Development website will be linked to LPB.org.

Preemptions:

Due to LPB's commitment to serve the community, dates and times of programs, repeats and underwriter acknowledgments are subject to change or cancellation without notice. When reasonably possible, LPB will reschedule the underwritten program to include applicable underwriter credits.

Louisiana Department of Transportation & Development/FELPB Agreement 2012-2013 cont'd (Page 2 of 2)

Cancellation Option:

The underwriter has the option to cancel this agreement after a minimum of 90 days from the date of the first airing, by providing a minimum of 30 days prior written notice of cancellation. During the 30 day period, LPB may continue to air the credits and the underwriter will be obligated for the contract amounts through the date of termination.

Contract Amount / Payment:

The Louisiana Department of Transportation & Development Materials and Testing Section agrees to pay the sponsorship rate of $1,500 NET for sponsorship package listed on page one of this agreement. Sponsorship will be billed in one payment as follows: $1,500.00 NET in May 2012.The sponsor agrees to remit invoice(s) within 30 days of invoiced date(s).

$1,500.00 NET-May 2013

Total Amount: $1,500.00 NET

Default:

If the underwriter fails to make any payment when due, FELPB may, in addition to other remedies, discontinue airing any or all credits.

No Warranties:

The underwriter is solely responsible for selecting the program(s) it wishes to underwrite, and FELPB makes no warranties, implied or express, regarding such program(s).

By the signatures below, the sponsor and FELPB agree to perform the mutual obligations as outlined above in accordance with all terms and conditions of this sponsorship agreement.

Effective Date: May 14, 2012 **End Date: May 29, 2013**

Sponsor approval by: **Foundation for Excellence In LPB approval by:**

Date: 5/16/12 Date: 06-13-12

Witness: Witness:

Date: 5/16/2012 Date: 6-13-12

UNDERWRITING AGREEMENT:
Louisiana Public Broadcasting
7733 Perkins Road, Baton Rouge, LA 70810-1199
(225) 767-4466
(225) 767-4421 (FAX)
Jeanne S. Smith, Underwriting Director
jsmith@lpb.org

Louisiana Department of Transportation & Development: FELPB general support during prime time 2011-2012 (Page 1 of 2)

Louisiana Department of Transportation and Development	Dustin Annison, Public Info. Off.
Sponsoring Company Name:	**Contact Name and Title:**
1201 Capital Access Road, Room 301E	Baton Rouge, LA 70804-9245
Address:	**City, State and Zip**
(225) 379-1702	(225) 379-1863/dustin.annison@la.gov
Phone Number:	**Fax Number/email:**

Tax ID # 72-6000-755

This document will serve to verify and specify the conditions relating to an agreement between the Foundation for Excellence in Louisiana Public Broadcasting (FELPB) and the Louisiana Department of Transportation & Development for providing general support to programming broadcast on Louisiana Public Broadcasting, (LPB):

General-support announcements.

Agreement period: May 31, 2011-May 30, 2012

Promotional Considerations:

Louisiana Department of Transportation & Development will receive the following promotional considerations:

- Twenty, 20, (:30 second) messages supporting DOTD's Storm Water Campaign. Messages will air Sunday through Saturday during prime-time and How-to programming, May 31, 2011 through May 30, 2012.
- Twenty, 20, (:30 second) BONUS messages supporting DOTD's Storm Water Campaign, also airing Sunday through Saturday during prime-time and How-to programming, May 31, 2011 through May 30, 2012.
- Messages should air, four 3-4 per month, May 2011-May 2012.
- One (1) "In Good Company" feature article in LPB Visions magazine.
- Acknowledgement in the underwriter's section of Visions as a general support underwriter.
- Acknowledgement in the underwriter's section of LPB.org.
- Louisiana Department of Transportation & Development website will be linked to LPB.org.

Preemptions:

Due to LPB's commitment to serve the community, dates and times of programs, repeats and underwriter acknowledgments are subject to change or cancellation without notice. When reasonably possible, LPB will reschedule the underwritten program to include applicable underwriter credits.

Louisiana Department of Transportation & Development/FELPB Agreement 2011-2012 cont'd (Page 2 of 2)

Cancellation Option:

The underwriter has the option to cancel this agreement after a minimum of 90 days from the date of the first airing, by providing a minimum of 30 days prior written notice of cancellation. During the 30 day period, LPB may continue to air the credits and the underwriter will be obligated for the contract amounts through the date of termination.

Contract Amount / Payment:

The Louisiana Department of Transportation & Development agrees to pay the sponsorship rate of $1,500 NET for sponsorship package listed on page one of this agreement. Sponsorship will be billed in one payment as follows: $1,500.00 NET in May 2012.The sponsor agrees to remit invoice(s) within 30 days of invoiced date(s).

$1,500.00 NET-May 2012

Total Amount: $1,500.00 NET

Default:

If the underwriter fails to make any payment when due, FELPB may, in addition to other remedies, discontinue airing any or all credits.

No Warranties:

The underwriter is solely responsible for selecting the program(s) it wishes to underwrite, and FELPB makes no warranties, implied or express, regarding such program(s).

By the signatures below, the sponsor and FELPB agree to perform the mutual obligations as outlined above in accordance with all terms and conditions of this sponsorship agreement.

Effective Date: May 23, 2011

End Date: May 30, 2012

Sponsor approval by:

Date: 5/24/11

Witness:

Date: 5/24/11

Foundation for Excellence in LPB approval by:

Date: 06-09-11

Witness:

Date: 6/9/11

Report date: 02/20/2013
Report time: 08:05:50

Louisiana Public Broadcasting

From: 01/01/2012 To: 12/31/2012

Log Performance Report

Video Source / Audio Source	CART Tape/Cut	Type	Title / Sub-Title	Length	Available From/To	DAYS	Notes
LGS12-15		GS	GSA: DOTD-LA DEPT OF TRANSP & DEV	00:30:04	06/22/08	SMTWTFS	LUC DV 2006-2007
LGS12-15	0012/15				05/29/13	YYYYYYY	

Sun	01/01/2012	at 18:29:29	for 00:00:30:04	LPB	
Sat	01/07/2012	at 14:29:29	for 00:00:30:04	LPB	
Tue	01/10/2012	at 20:59:29	for 00:00:30:04	LPB	
Sat	01/14/2012	at 11:29:29	for 00:00:30:04	LPB	
Sun	01/15/2012	at 19:59:29	for 00:00:30:04	LPB	
Sat	01/21/2012	at 11:29:14	for 00:00:30:04	LPB	
Tue	01/24/2012	at 21:59:29	for 00:00:30:04	LPB	
Thu	01/26/2012	at 20:59:29	for 00:00:30:04	LPB	
Sat	01/28/2012	at 15:59:29	for 00:00:30:04	LPB	
Sun	01/29/2012	at 20:59:29	for 00:00:30:04	LPB	
Sat	02/04/2012	at 09:59:29	for 00:00:30:04	LPB	
Thu	02/09/2012	at 18:59:29	for 00:00:30:04	LPB	
Sat	02/11/2012	at 14:29:29	for 00:00:30:04	LPB	
Thu	02/16/2012	at 21:59:29	for 00:00:30:04	LPB	
Sat	02/18/2012	at 14:59:29	for 00:00:30:04	LPB	
Thu	02/23/2012	at 20:59:29	for 00:00:30:04	LPB	
Sat	02/25/2012	at 14:59:29	for 00:00:30:04	LPB	
Tue	02/28/2012	at 21:59:29	for 00:00:30:04	LPB	
Sat	03/03/2012	at 10:59:29	for 00:00:30:04	LPB	
Sun	03/11/2012	at 08:59:29	for 00:00:30:04	LPB	
Sun	03/18/2012	at 15:29:29	for 00:00:30:04	LPB	
Sat	03/24/2012	at 13:29:14	for 00:00:30:04	LPB	
Sun	03/25/2012	at 18:59:29	for 00:00:30:04	LPB	
Sat	03/31/2012	at 10:59:29	for 00:00:30:04	LPB	
Sun	04/01/2012	at 18:59:29	for 00:00:30:04	LPB	
Sat	04/07/2012	at 08:59:12	for 00:00:30:04	LPB	
Sun	04/08/2012	at 19:59:29	for 00:00:30:04	LPB	
Sat	04/14/2012	at 16:29:29	for 00:00:30:04	LPB	
Sun	04/15/2012	at 21:59:29	for 00:00:30:04	LPB	
Sat	04/21/2012	at 10:59:29	for 00:00:30:04	LPB	
Sun	04/22/2012	at 18:59:29	for 00:00:30:04	LPB	
Sat	04/28/2012	at 11:29:29	for 00:00:30:04	LPB	
Thu	05/03/2012	at 20:59:29	for 00:00:30:04	LPB	
Sat	05/05/2012	at 15:59:29	for 00:00:30:04	LPB	
Tue	05/08/2012	at 20:59:29	for 00:00:30:04	LPB	
Sat	05/12/2012	at 15:59:29	for 00:00:30:04	LPB	
Sun	05/13/2012	at 19:59:29	for 00:00:30:04	LPB	
Tue	05/15/2012	at 20:59:09	for 00:00:30:04	LPB	
Sat	05/19/2012	at 15:59:29	for 00:00:30:04	LPB	

Video Source / Audio Source	CART Tape/Cut	Type	Title / Sub-Title	Length	Available From/To	DAYS	Notes
LGS12-15		GS	GSA: DOTD-LA DEPT OF TRANSP & DEV	00:30:04	06/22/08	SMTWTFS	LUC DV 2006-2007
LGS12-15	0012/15				05/29/13	YYYYYYY	

Thu	05/24/2012	at 21:56:46	for 00:00:30:04	LPB
Sat	05/26/2012	at 09:59:29	for 00:00:30:04	LPB
Sun	05/27/2012	at 11:59:29	for 00:00:30:04	LPB
Thu	06/07/2012	at 21:29:29	for 00:00:30:04	LPB
Sun	06/10/2012	at 19:00:20	for 00:00:30:04	LPB
Sat	06/16/2012	at 12:29:29	for 00:00:30:04	LPB
Thu	06/21/2012	at 20:59:29	for 00:00:30:04	LPB
Sat	06/23/2012	at 11:59:29	for 00:00:30:04	LPB
Thu	06/28/2012	at 21:59:29	for 00:00:30:04	LPB
Sat	06/30/2012	at 14:59:29	for 00:00:30:04	LPB
Tue	07/03/2012	at 19:59:29	for 00:00:30:04	LPB
Sat	07/07/2012	at 13:29:29	for 00:00:30:04	LPB
Tue	07/10/2012	at 18:59:29	for 00:00:30:04	LPB
Sat	07/14/2012	at 09:59:29	for 00:00:30:04	LPB
Tue	07/17/2012	at 20:59:29	for 00:00:30:04	LPB
Sat	07/21/2012	at 09:59:29	for 00:00:30:04	LPB
Thu	07/26/2012	at 21:59:29	for 00:00:30:04	LPB
Sat	07/28/2012	at 10:59:29	for 00:00:30:04	LPB
Tue	07/31/2012	at 18:59:29	for 00:00:30:04	LPB
Sat	08/04/2012	at 09:59:29	for 00:00:30:04	LPB
Sun	08/05/2012	at 18:59:29	for 00:00:30:04	LPB
Sat	08/11/2012	at 11:59:29	for 00:00:30:04	LPB
Sat	08/18/2012	at 13:59:29	for 00:00:30:04	LPB
Sun	08/19/2012	at 21:59:29	for 00:00:30:04	LPB
Sat	08/25/2012	at 08:59:29	for 00:00:30:04	LPB
Sun	08/26/2012	at 19:59:29	for 00:00:30:04	LPB
Sat	09/01/2012	at 13:29:29	for 00:00:30:04	LPB
Sun	09/02/2012	at 18:59:29	for 00:00:30:04	LPB
Sat	09/08/2012	at 10:59:29	for 00:00:30:04	LPB
Sun	09/09/2012	at 18:59:29	for 00:00:30:04	LPB
Tue	09/11/2012	at 19:59:29	for 00:00:30:04	LPB
Sat	09/15/2012	at 12:29:29	for 00:00:30:04	LPB
Sun	09/16/2012	at 21:29:29	for 00:00:30:04	LPB
Thu	09/20/2012	at 18:59:29	for 00:00:30:04	LPB
Sat	09/22/2012	at 08:59:12	for 00:00:30:04	LPB
Tue	09/25/2012	at 19:59:29	for 00:00:30:04	LPB
Sat	09/29/2012	at 13:29:29	for 00:00:30:04	LPB
Thu	10/04/2012	at 18:59:29	for 00:00:30:04	LPB
Sat	10/06/2012	at 10:59:29	for 00:00:30:04	LPB

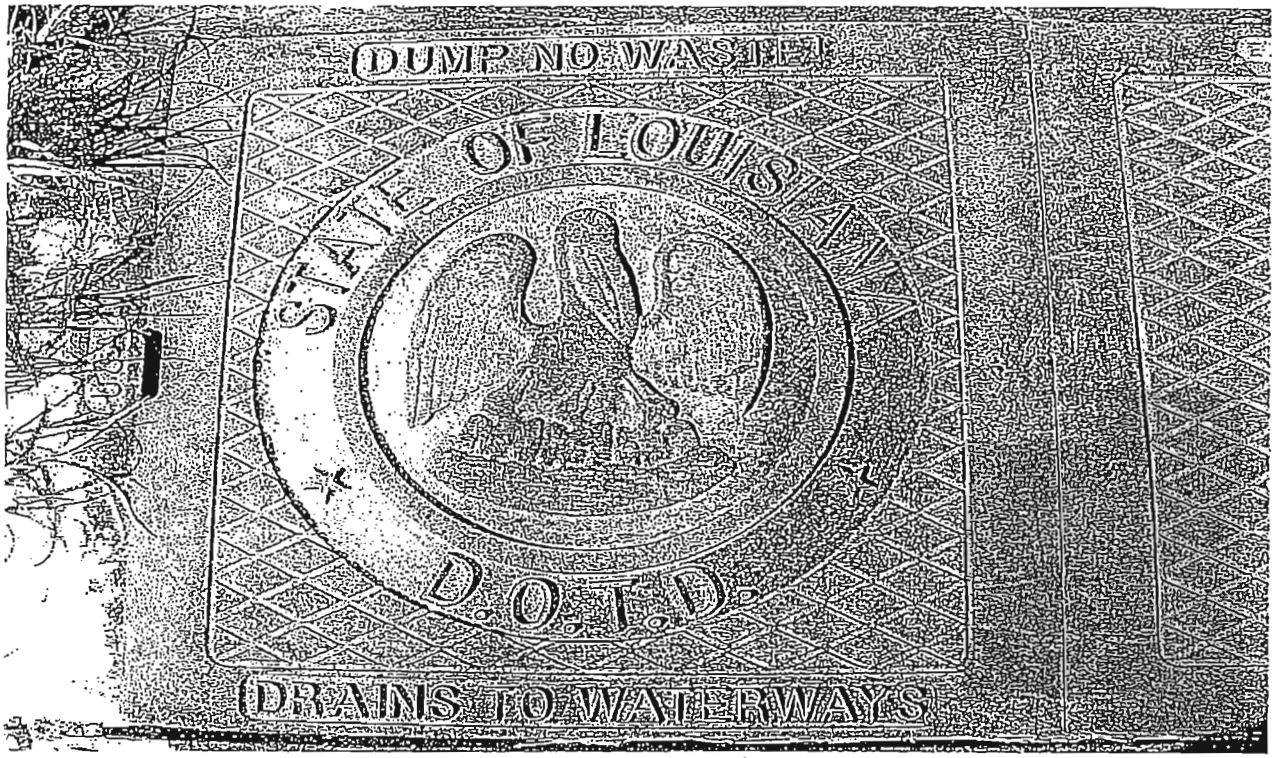
Video Source / Audio Source	CART Tape/Cut	Type	Title / Sub-Title	Length	Available From/To	DAYS	Notes
LGS12-15		GS	GSA: DOTD-LA DEPT OF TRANSP & DEV	00:30:04	06/22/08	SMTWTFS	LUC DV 2006-2007
LGS12-15	0012/15				05/29/13	YYYYYYY	

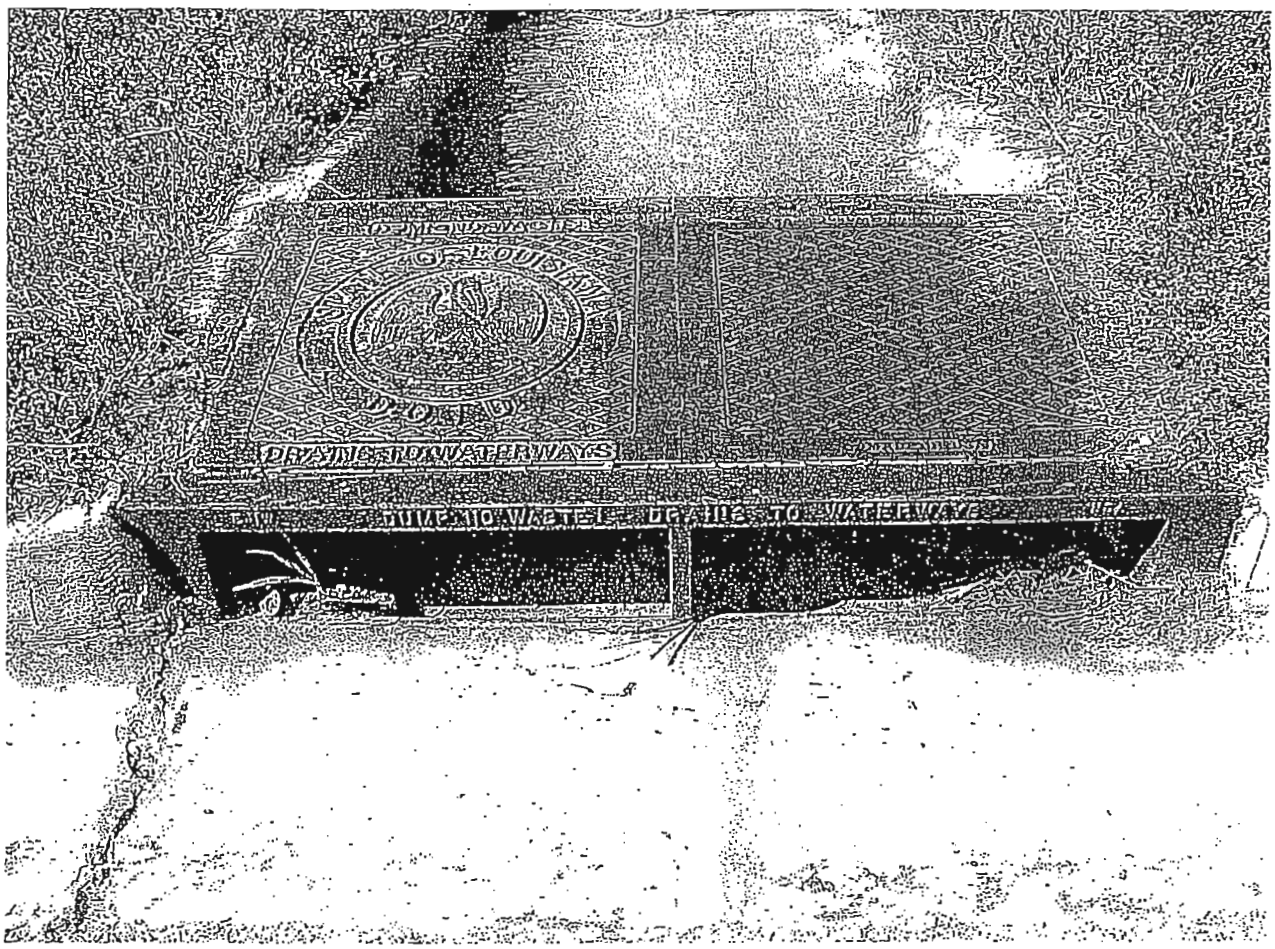
Thu	10/11/2012	at 19:59:29	for 00:00:30:04	LPB
Sat	10/13/2012	at 10:59:29	for 00:00:30:04	LPB
Thu	10/18/2012	at 21:59:29	for 00:00:30:04	LPB
Sat	10/20/2012	at 10:59:31	for 00:00:30:04	LPB
Thu	10/25/2012	at 18:59:29	for 00:00:30:04	LPB
Sat	10/27/2012	at 13:29:29	for 00:00:30:04	LPB
Tue	10/30/2012	at 21:59:29	for 00:00:30:04	LPB
Sat	11/03/2012	at 10:59:29	for 00:00:30:04	LPB
Thu	11/08/2012	at 21:09:25	for 00:00:30:04	LPB
Sat	11/10/2012	at 10:59:29	for 00:00:30:04	LPB
Tue	11/13/2012	at 18:59:29	for 00:00:30:04	LPB
Sat	11/17/2012	at 10:59:29	for 00:00:30:04	LPB
Sat	11/24/2012	at 08:59:29	for 00:00:30:04	LPB
Sat	12/01/2012	at 08:59:29	for 00:00:30:04	LPB
Sun	12/02/2012	at 20:59:29	for 00:00:30:04	LPB
Tue	12/04/2012	at 18:59:29	for 00:00:30:04	LPB
Sat	12/08/2012	at 14:59:29	for 00:00:30:04	LPB
Tue	12/11/2012	at 21:59:29	for 00:00:30:04	LPB
Sat	12/15/2012	at 15:59:29	for 00:00:30:04	LPB
Thu	12/20/2012	at 21:59:29	for 00:00:30:04	LPB
Sat	12/22/2012	at 10:59:29	for 00:00:30:04	LPB
Tue	12/25/2012	at 20:59:29	for 00:00:30:04	LPB
Sat	12/29/2012	at 14:59:29	for 00:00:30:04	LPB
Sun	12/30/2012	at 18:29:29	for 00:00:30:04	LPB

This item appeared 102 times between 01/01/2012 and 12/31/2012.

Appendix F

Catch Basin Cover Photograph


DUMP NO WASTE
STATE OF LOUISIANA
D.O.T.D.
DRAINS TO WATERWAYS


DRAINS TO WATERWAYS
DUMP NO WASTE

Appendix G

IDDE Training Form & Employee Quiz

IDDE
a grate concern

Acknowledgment of Training

(This top section should be filled in by the trainer)

Signature(s) below are acknowledgment that on (date)_____, these individuals participated in a training session at the:

Location Name: _____

Address: _____

Given by: (trainer's name) _____

(title) _____

This training session presented information on illicit discharge detection and elimination. During this session, the individuals listed below viewed the training video:

IDDE: a grate concern

The participants' signatures below affirm they were given adequate time to ask questions about their particular job activities and how they could best conduct these activities.

Please read the above paragraph before signing below.

PRINT NAME HERE	SIGNATURE HERE

IDDE
a grate concern

Employee Quiz

Name _____

Dept. _____ Date _____

The following questions all have multiple choice answers. Please circle the best answer for each question.

1. Pure stormwater run-off…
   a. is cloudy.
   b. is foamy.
   c. is clear and bright.
   d. has a rainbow sheen.
   e. all of the above

2. What information about a suspected illicit discharge would not be useful to collect and report?
   a. weather conditions
   b. date and time
   c. location
   d. description of the discharge

3. How long after the last significant rainfall should flow in a stormwater outfall make you suspicious?
   a. 1 hour
   b. 8 hours
   c. 1 day
   d. 2-3 days

4. Municipal separate storm sewer systems are designed to perform only the following function:
   a. clean-up stormwater run-off
   b. control and divert stormwater run-off
   c. treat stormwater run-off
   d. treat sanitary wastes

5. Which of the following materials are common illicit discharges?
   a. pet wastes
   b. grass clippings
   c. paint wastes
   d. trash
   e. all of the above

6. Which of the following materials should never be disposed in a non-leak tight outdoor dumpster or trash can?
   a. paper and plastic
   b. any liquids
   c. floatables
   d. broken concrete

7. Which of the following would be suspicious if observed at a stormwater outfall?
   a. vapors or fumes
   b. dead or dying vegetation
   c. discolored water
   d. all of the above

8. What does a "rainbow sheen" on stormwater indicate?
   a. a recent rain storm
   b. waste paint
   c. gasoline
   d. sewage contamination

9. Which of the following types of operations can be a source of illicit discharges?
   a. private homes
   b. industrial facilities
   c. restaurants
   d. municipal facilities
   e. all of the above

10. A stained storm drain inlet is probably a sign of...
   a. recent MS4 maintenance work.
   b. a marking to indicate it needs repair.
   c. past illicit discharges.
   d. dye testing.

11. Everything that enters an MS4 eventually winds up in...
   a. a sanitary sewer treatment works.
   b. an underground aquifer.
   c. a drinking water treatment plant.
   d. a stream, river, lake or bay.

12. Which of the following are allowed in municipal separate storm sewer systems (MS4s)?
   a. rainwater run-off
   b. sanitary wastes from hospitals and long-term care facilities
   c. milk
   d. floor mat rinse water

13. What is the most likely illicit discharge from a construction site?
   a. silt and sediments
   b. waste oil
   c. floatables
   d. pet wastes
   e. waste pesticides

14. A suspected illicit discharge from which of the following types of operations would not need to be reported?
   a. apartment complex
   b. retail shopping center
   c. service station
   d. public park
   e. report all of them

15. What could cause a strong odor at a stormwater outfall?
   a. sanitary sewage
   b. garbage
   c. gasoline
   d. any of the above

Appendix H

Public Records Request Forms

Louisiana Department of Transportation and Development
PUBLIC RECORDS REQUEST FORM
http://www.dotd.la.gov

Date: ___/___/___

STEP 1: **COMPLETE** all information in the fields provided. **Please TYPE or PRINT.** If you have questions, please call the Customer Information Line, toll-free at (866) 590-0065 or locally at (225) 242-4656. You may also, e-mail any questions to dotdpublicrecords@la.gov

STEP 2: **SUBMIT** completed form to Custodian of Records, 3rd Floor, DOTD, P.O. BOX 94245, Baton Rouge, LA 70804-9245. **DO NOT ATTACH PAYMENT WITH THIS FORM. DO NOT E-MAIL OR FAX THIS FORM, IT MUST BE MAILED.**

STEP 3: **WAIT** to receive a notice of estimated cost. Once received, send payment. Copies will be mailed upon receipt of payment or copies can be picked-up with payment. If 10 (ten) working days pass after notice is sent and payment is not received, it will be necessary to initiate a new request.

Requestor Information Please Type or Print

First _____ | Last _____ | Middle _____

Organization/Company _____

Mailing Address _____

City _____ /State _____ /Zip _____

Telephone ( ) - _____ , Fax ( ) - _____

Email Address: _____

Payment Method & Authorization

CHECK OR MONEY ORDER ONLY.

Duplication Fees

Regular rate:	$0.25 per page (8½X11 & 8½X14)
Spec Sheets:	$0.50 per page (11X17)
Plan sheets:	$1.10 per page (24X36)
CDs or Disks:	$5 per disk + $25 per hour data processing fee

*Research may require additional fees

Requestor Information (Please Type or Print)

To expedite your request, be as specific as possible. Attach additional pages to the form as necessary. Include street address of the facility, the document dates, and other details about the type of record of interest to you. If you are requesting construction records, please include the state project number if it is known.

Delivery Information (Check Appropriate Box)

☐ Segregate records for in-person review. To view the records on a particular date, please list it here: __/____/____. You will be notified when the records are ready for review.

☐ Make copies for me to pick-up in person. Cost of copies shall be paid upon arrival by check or money order made payable to the Department of Transportation & Development.

☐ Make copies and mail them to me. Cost of copies and postage shall be paid in advance by check or money order payable to Department of Transportation & Development

* Due to the large volume of some state projects records, it may be necessary for the custodian to take additional time to accumulate the info from all sections. In this case, it is required that the requesting party view the records to be duplicated.

Appendix I

Construction Inspection Forms

Erosion Control Measures

To be completed every 7 days and within 24 hours of a rainfall event of 0.5 inches or more

nspector _____ Date _____

S.P. No. _____ FAP No. _____

Contractor _____ Route _____

)ays Since Last Rainfall: _____ Amount of Last Rainfall _____ inches

Station No.	Lt./Rt.	Type	Does Silt Need Removal ?	Is Erosion Item Stable ?	Is There Evidence Of Washout or Over-Topping ?	Condition & Comments on Effectiveness

Maintenance required for Erosion Control Measures:

o be performed by: _____ On or Before: _____

ypes of Measures:

- Silt Fence
- Hay/Straw Bales
- Hay Check Dam
- Stone Check Dam

E - Sediment Basin
F - Slope Drain
G- TemporarySeeding
H - None, But Stabilization Measure Required
I - Matting
J - Other

Louisiana Department of Transportation and Development
Storm water Construction Site Inspection Report

General Information			
Project Name			
Permit Number		Location	
Date of Inspection		Start/End Time	
Inspector's Name			
Inspector's Title			
Inspector's Contact Information			
Describe present phase of construction			
Type of Inspection ☐ Regular ☐ Pre-storm event ☐ During storm event ☐ Post-storm event ☐ Other			
Weather at time of inspection?			

Records			
NOI available, if applicable? ☐Yes ☐No	Permit available? ☐Yes ☐No	Current SWPPP? ☐Yes ☐No	Current site map? ☐Yes ☐No
Are the self inspections current? ☐Yes ☐No	Date of last self inspection:		
Corrective action log available? ☐Yes ☐No			

Site Specific BMPs				
	BMP Description	BMP Installed & Operating Properly?	Corrective Action Needed	Proposed date for corrective action & responsible person
1		☐Yes ☐No		
2		☐Yes ☐No		
3		☐Yes ☐No		
4		☐Yes ☐No		
5		☐Yes ☐No		
6		☐Yes ☐No		
7		☐Yes ☐No		
8		☐Yes ☐No		
9		☐Yes ☐No		
10		☐Yes ☐No		
11		☐Yes ☐No		
12		☐Yes ☐No		
13		☐Yes ☐No		

	BMP/activity	Implemented?	Maintained?	Corrective action Needed	Proposed date for corrective action & responsible person
1	Are all slopes & disturbed areas not actively being worked properly stabilized?	☐Yes ☐No	☐Yes ☐No		
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	☐Yes ☐No	☐Yes ☐No		
3	Are perimeter controls & sediment barriers adequately installed and maintained?	☐Yes ☐No	☐Yes ☐No		
4	Are discharge points and receiving waters free of sediment deposits?	☐Yes ☐No	☐Yes ☐No		
5	Are storm drain inlets properly protected?	☐Yes ☐No	☐Yes ☐No		
6	Is there evidence of sediment being tracked into the street?	☐Yes ☐No	☐Yes ☐No		
7	Is trash/litter from work areas collected and placed in covered dumpsters?	☐Yes ☐No	☐Yes ☐No		
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	☐Yes ☐No	☐Yes ☐No		
9	Are vehicle & equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	☐Yes ☐No	☐Yes ☐No		
10	Are materials that are potential stormwater contaminants stored inside or under cover?	☐Yes ☐No	☐Yes ☐No		
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐Yes ☐No	☐Yes ☐No		
12	Are there any discharges at time of inspection?	☐Yes ☐No	☐Yes ☐No		
13		☐Yes ☐No	☐Yes ☐No		
14		☐Yes ☐No	☐Yes ☐No		
15		☐Yes ☐No	☐Yes ☐No		

Notes

Inspector Certification	
Print Name:	
Signature:	
Date:	

Appendix J

Course Descriptions

Agenda K

LSWA Conference Agenda


Save the Date
Don't Miss the
New Opening Ceremony
including
Jazz Band and Second Line into Exhibit Hall
along with Mimosas and Bloody Marys
2012
Louisiana Solid Waste Association's
Environmental Opportunities &
Technology Conference
April 25-27, 2012
Cajundome Convention Center
Lafayette, Louisiana
www.lswa.us

6:00-9:00 PM	Hospitality Room (Hilton Garden Inn)

Thursday, April 26, 2012

7:30-8:30	Registration, Opening Ceremony & Exhibitor Visitation
8:30-9:00	Guest Speakers (Peggy Hatch, DEQ Secretary)

Track Titles	Solid Waste & Industrial	Air	UST	Water/Waste Water
9:00-11:00	Ethics Training (Mr. Michael Dupree (Louisiana Board of Ethics)			
11:30-1:00	Guest Speaker Dr. Al Armendariz, USEPA (Invited), DEQ Solid Waste Operators Awards Presentation & Luncheon			
11:30 - 1:00 pm	Lunch & Awards Presentation			

Breakout Sessions

Track Titles	Solid Waste & Industrial		Air	UST	Water/Waste Water
1:00-1:30	"Leachate, Leachate Collection Systems and How to Prevent Groundwater Impact"-Dru Trahan & Dorian Heroman	"E Waste"-Paul Miller	"Open Burning in Louisiana"-Corey Gautreaux, LDEQ	"Pay for Performance"-Durwood Franklin, LDEQ	"Drought Impacts on the Forests & Urban Forests in Louisiana"-Hallie Dozier
1:30-2:00		"CNG & Potential Landfill Gas"-Paul Miller		"Trust Fund"-Jeffrey Baker	
2:00-2:30	"Slope Stability: Are Landfills too Big to Fail"-Dr. Ricardo D'Abreu, SOLO Environmental Consultants, LLC	"Beneficial Use from an Industrial Perspective-What Qualifies"-William Greenwich	"NAAQs Update"-Vivian Aucoin & Tim Bergeron	"Stage I/Stage II Vapor Recovery"-Paul Weaver, SSCI	"Drought Impacts on Agriculture"-Cheston Stevens, Jr.
2:30-3:00	"DEQ Inspections-What to Look for...(Waste piles, erosion issues, trash, operational plans)"-Larry Baldwin	"Solar Panels in Landfills-An Update"-David Stuart		"Federal Regulatory Update/Top 10 Violations, Sources/Causes of Releases in 2010 & 2011"-Sam Broussard, LDEQ	
3:00 -4:00	Exhibitor Visitation				

Track Titles	Solid Waste & Industrial		Air	UST	Water/Waste Water
4:00-4:30	"How to Make an Operational Plan Operational"-Gary Bonvillain, Dupre Carrier Godchaux	"Groundwater Flow Changes at Your Facility-Upgradient vs Downgradient"-Nelson Morvant	"DERA Grant Updates"-Gilberto Cuadra	"RECAP Q & A/Roundtable"-Tom Harris, LDEQ	"Drought Impacts on the Aquifers"-J. Lovelace, USGS
4:30-5:00	"New Solid Waste Permit Application, an Overview"-Traci Green & Jodie Alexis	"The "New Definition" of Solid Waste Under the New Regulations"-John King, Breazeal, Sachse & Wilson			"Drought Impacts on LPDDES Discharges"-Speaker TBA
6:00 - 9:00 pm	Hospitality Event Acadian Village				

Friday, April 27, 2012

Track Titles	Solid Waste & Industrial		Air	UST	Water/Waste Water
8:00-8:30	Exhibitor Visitation				
8:30-9:00	"Permitting vs. Long Term Requirements for C & D Landfills"-Vic Donald, Terracon	"Regulatory Permit for Open Burning/ACD's from SW Perspective"-Evita Lagard & Jason Meyers	"Concrete Crushing-What Air Regulations Apply"-Jim Reed	"Remediation Case Studies"-Keith Hom,LDEQ	"E&P Orders, What to Expect in Your Water Permit"-LDEQ Speaker
9:00-9:30	"You Passed the Solid Waste Operator Test...Now What?"-Terrance Stewart, Tangipahoa Parish				"Managing Landfill Discharges to Meet Permit Limits"-Aimee' Killeen, Providence
9:30-10:00	Exhibitor Visitation & Refreshments				
10:00-10:30	"Landfill Construction from a Contractor's Perspective (CQA, Leachate Collection Systems, etc)"-Chris Reynolds, Terracon	"Auditing an Active/Closed Landfill"-Zia Tammami, CK	"DEQ Air Panel"-Dustin Duhon & Tim Bergeron, LDEQ	"Innovative Rememdiation Technologies (Phytoremediation)"-Mark Killen, TRC Solutions	"New Storm Water Rules"-Rod Henderick
10:30-11:00	"Closure & Post Closure-Now That We Are Closed What Do We Do?"-Speaker TBA	"Sewage Sludge Program"-Eura Dehart			
11:00-12:00	"DEQ Solid Waste & Industrial Panel"-Panel TBA			"New Closure Guidance Document Update (Round Table Q & A)"-Sam Broussard, Alan Karr & Isaac Ricketts,LDEQ	"Landfill Water Questions & Issues"-LDEQ Panel
12:00	PRIZE DRAWINGS-MUST BE PRESENT TO WIN!!!				

The LDEQ Satellite Office - LDEQ Staff will have an "Office" established in the Lobby of the Cajundome Convention Center from 1:30 pm to 3:30 pm on Thursday and from 8:30 am to 10:30 am on Friday. Stop by the "Office" and have questions answered regarding geology, engineering, permitting, and other topics.

Save the Date

2012

Louisiana Solid Waste Association's Environmental Opportunities & Technology Conference

Mark your calendars now to attend this exciting event.

April 25-27, 2012

Cajundome Convention Center

Lafayette, Louisiana

Register On-line

Online Registration Forms Available

www.lswa.us

Appendix L

Hydraulics Manual Supplement

ROAD DESIGN

EROSION CONTROL GUIDELINES

HYDRAULICS UNIT

PLAN CHECKING AND DESIGN PROCEDURES FOR EROSION & SEDIMENT CONTROL

SUPPLEMENT TO HYDRAULICS MANUAL

NOVEMBER 2007

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

INTRADEPARTMENTAL CORRESPONDENCE

IN REPLY REFER TO FILE NO

REFERRED TO

____ REFERRED FOR ACTION
____ ANSWER FOR MY SIGNATURE
____ FOR FILE
____ FOR YOUR INFORMATION
____ FOR SIGNATURE
____ RETURN TO ME
____ PLEASE SEE ME
____ PLEASE TELEPHONE ME
____ FOR APPROVAL
____ PLEASE ADVISE ME

BY ____ DATE ____
BY ____ DATE ____
BY ____ DATE ____

HYDRAULICS OFFICE
(225)379-1306

MEMORANDUM

TO: ROAD DESIGN SECTION
BRIDGE DESIGN SECTION
CONSTRUCTION SECTION
DISTRICT ADMINISTRATORS
DISTRICT DESIGN OFFICES
ENVIRONMENTAL SECTION
PROJECT MANAGEMENT SECTION

FROM: Steve Lee, P. E.
Hydraulics Engineer Administrator

DATE: November 1, 2007

SUBJECT: **DESIGN POLICY ON EROSION CONTROL**

The attached documents are a re-issuance of LADOTD's Design Policy on Erosion Control with minor changes. An additional example has been added to the documentation. Also, the section entitled "Plan Checking & Design Procedures for Erosion and Sediment Control on LADOTD N/LPDES Permitted Project" was to be included in the Hydraulics Manual, and it is labeled as such; however, this information will not be included in the Hydraulics Manual as the Design Policy on Erosion Control is being updated periodically to correspond with changes in EPA and DEQ policy.

Further information can be obtained by contacting Sarah Golz in the Hydraulics Section at (225) 379-1430.

RECOMMENDED FOR APPROVAL ____ DATE ____

RECOMMENDED FOR APPROVAL ____ DATE ____

APPROVED ____ DATE ____

PLAN CHECKING & DESIGN PROCEDURES
FOR
EROSION & SEDIMENT CONTROL
ON
LA DOTD N/LPDES PERMITTED PROJECTS

This document pertains to those projects which fall under Phase I and Phase II of Louisiana's Pollutant Discharge Elimination System permitting program. The program applies to all construction projects disturbing one acre or greater of land as of March 2003.

Plan checking and design procedures on the use of erosion and sediment controls are to be followed according to the *Roadway Design Procedures and Details Manual (RDM)* with few exceptions as shown herein. A reference is made to section 4.5.2 of this manual and Standard Plan EC-01. Temporary erosion controls should be shown on the plan and construction sequence sheets, or on separate sheets altogether. This is a revision to section 8.2.5(h) of the RDM. Where many controls are required such that they would clutter the plans, the controls should instead, be listed in tables on summary sheets. Temporary erosion control symbols should be included as part of a plan symbol legend. Structural controls should have details for their installation included within the plans. Examples of structural (i. e., sediment) controls are silt fencing, sediment basins, check dams, etc. See Standard Plan EC-01. New products are continuously being developed to aid in erosion and sediment control. Products equivalent to the traditional ones mentioned in this document are acceptable as approved by the LADOTD.

Plan preparation procedures for separate, temporary erosion control sheets are also included. They should follow similar procedures to those discussed below for showing controls within the traditional plan set. The guidelines and procedures listed below are used to supplement, and may supersede, the RDM and Standard Plan EC-01.

PRELIMINARY DESIGN/PLAN CHECK

Roadside, median, and temporary ditches should have hay/straw or stone (or equivalent material) check dams placed in them. There are many options for the temporary stabilization of ditches. Construction personnel are allowed to make adjustments for field conditions. As a guideline, check dams should only be used in channels with a contributing drainage area of 10 acres or less. Additionally, they should only be placed in channels having a 10% grade or less, and where the depth of flow is not expected to exceed one (1) foot. Use hay or straw baled check dams where the maximum contributing drainage area is 2 acres. Use stone check dams where the drainage area is between 2 and 10 acres. (It will not be necessary to show such drainage areas on the Design Drainage Map.) The maximum spacing between dams should be such that the toe of the upstream dam is at the same elevation as the top of the downstream dam.

Check dams range from 1½ ft. to 3 ft. in height, depending on the channel cross-section or depth of flow. The height should be equal to the top of the lower channel bank or to the depth of anticipated flow, whichever is lower, with a minimum of 1½ ft. The center of the dam should be at least 6 inches lower than the height (outer edges). The bottom length should be three times the height (3 x h).

On bridge construction and replacement jobs, silt fencing (or an equivalent product) should be specified near the toe of the banks, parallel to the waterway and between the right-of-way limits on either side of the bridge. Roadside channels on either side of the bridge should have either check dams or bridge/erosion drain pipes (*ditch blocks*) to help slow channel velocity from any runoff during the time of construction, when the bridge embankment is vulnerable to erosion. Silt fencing and check dams used here can be shown on either the plan or bridge general plan sheets. (Refer to section 5.2.4 of the RDM and Chapter I of the Hydraulics Manual for design details pertaining to ditch blocks.)

Existing catch basins (both curb & open-top inlet types) that are to remain on a project should have some form of silt protection. Traditionally, this has been accomplished with either silt fence or hay/straw bales and thus, accounted for in a (204) pay item. Rock or stone barriers are also acceptable as long as they are properly installed. Because drainage work is performed early in the construction period, proposed catch basins should also have inlet protection.

Permanent erosion control at the outlets of cross drain structures should be noted on the preliminary plans (section 8.2.5(5.b) of the RDM).

(This paragraph reserved for future design guidelines pertaining to detention/sediment basins.)

FINAL DESIGN/PLAN CHECK

Standard Plan EC-01 should be included in the final plan set.

Silt fencing is used to minimize the amount of sediment leaving the construction site and/or entering water ways. It is also used to decrease the velocity of sheet flows. Silt fencing should be shown on the plans along areas of disturbance sloping away from the project site or towards adjacent, naturally existing water ways. It should not cross entrance and drainage ways. Disturbed areas typically extend fifteen (15) feet outside the limits of construction or to the limits of right-of-way, whichever is less. A look at the existing cross-sections will indicate slopes during clearing and grubbing operations. On urban projects where fore slopes are toward the roadway and inlet protection is specified, silt fence will likely not be necessary. The estimated quantity for silt fencing should take these and other situations into consideration. Silt fencing that coincides with the right-of-way should be indicated with an arrow and note at least once per plan sheet. At other locations, silt fencing should be indicated with the appropriate symbol at least once per plan sheet. Summary tables are now not required for silt fencing, since the plans can better indicate locations.

Show temporary slope (embankment) drains on the plans to carry storm water from the work area down unprotected long (greater than 100 ft.) and/or steep (greater than 2:1) slopes. Slope drains are typically only necessary on large, embankment moving projects. Earthen berms directing water into the pipe inlets should also be shown on the plans (see Std. Plan EC-01) unless the slope drains are included in a summary table(s).

Permanent erosion controls (i. e., seeding, mulching, rip-rap, erosion control systems, etc.), if not indicated on plan or profile sheets, should be tabulated in summary tables. This is a slight modification of Section 8.2.5(h) of the RDM. Locations (i. e., to and from stationing, and Lt., Rt., or Med. of roadway) and type (i. e., vegetative mulch, Type A covering, 30-lb rip-rap class, etc.) should be clearly indicated. (Refer to the Hydraulics office for design procedures pertaining to channel protection and rip-rap sizing/placement.) Erosion control coverings should be shown on either the profile sheets or listed in a summary table(s). They are used for either slope or channel protection, and should be labeled as such. Temporary check dams should still be placed in channels requiring covering until vegetation is established and the dams can be removed. The quantity for temporary seeding in these areas will be computed as specified in the appendix of the Road Design Manual under Miscellaneous Design Aids, *Rules Associated with Pay Items.* Rip-rap used at bridge abutments should be indicated on the bridge general plan sheets.

Pay items for temporary erosion controls should be included on the *Summary of Estimated Quantities* sheets. These include such items as temporary silt fencing and temporary slope drains (204-). Though not necessarily shown within the plans, at least two (2) items for temporary stone construction entrances should also be included on the *Summary of Estimated Quantities* sheets. Design aids for estimating temporary erosion control quantities are provided in the appendix of the Road Design Manual under Miscellaneous Design Aids, *Rules Associated with Pay Items.*

Pay items for permanent erosion controls should be included on the *Summary of Estimated Quantities* sheets. These include such items as fertilizing (718-01) and seeding (717-01), landscaping (719-), erosion control systems (720-), riprap used as outlet protection for cross drains and at bridge abutments (711), and others in the 700-no. category. Fertilizing and seeding limits are usually indicated on the typical section sheets (section 8.2.3(6) of the RDM). Permanent erosion controls can be used in place of temporary controls if placed early enough, and may share pay item numbers. Design aids for estimating permanent erosion control quantities are provided in the appendix of the Road Design Manual under Miscellaneous Design Aids, *Rules Associated with Pay Items.*

SEQUENCE OF CONSTRUCTION

Temporary erosion and sediment controls are usually installed during the first phase of construction, before the land is disturbed. In fact, storm water permit coverage starts from the commencement of construction activities until final project stabilization. Temporary structural controls must be removed whenever they are no longer necessary in serving their purpose, or when the protected area has been stabilized through the use of seeding and mulching, erosion control blankets, rip-rap, or other means. The installation and removal of controls and practices used to control erosion (BMPs) should be indicated on construction sequencing sheets. Below are guidelines for the sequencing of erosion controls and BMPs on LA DOTD state projects:

Silt fencing should be installed before clearing and grubbing operations begin, except when clearing involves installing the fence. Typically, this would be performed in the first stage of phase one of construction. It should be removed once the upslope area being protected has been stabilized. On bridge construction jobs over water ways, silt fencing should be installed before ground-breaking activities begin. On bridge replacement jobs over water ways, it should be installed prior to existing bridge removal and detour bridge construction (if applicable). In the case of both bridge construction and replacement jobs, it can be removed once the bridges and abutment protection are in place.

Slope drains and their temporary earth berms should be installed after clearing and grubbing and grading of the embankment slope has occurred. It should be removed only when the disturbed slope upon which it rests has been stabilized. This should be before roadway base work begins.

Check dams should be installed immediately after the channel is brought to grade, and should be removed only after the upslope channel for which they serve has been stabilized. Check dams in roadside channels near bridges should be placed before ground-breaking activities begin, or after ditch grading (if applicable). They should be removed after the installation of any bridge/erosion drain pipes (*ditch blocks*), or after the upslope channel for which they serve has been stabilized. Check dams should be tabulated in summary sheets indicating their locations by stationing. Where only a few dams are required, they can instead, be indicated on the sequence of construction sheets with a symbol, at a minimum scale of 1:1000 or 1" = 80'.

Protection for existing drainage inlets remaining onsite should be fully installed before clearing and grubbing operations begin in the area. Protection for proposed drainage inlets should be installed immediately after the new inlets are in place. In both cases, they should not be removed until the upslope area for which they serve has been stabilized. Inlet protections should typically be the last erosion controls removed from a site. They can be indicated on the sequence of construction sheets with a symbol, at a minimum scale of 1:1000 or 1" = 80'. Protection for many catch basins as part of subsurface drainage systems should instead, be listed in a summary table(s).

Temporary seeding, if necessary prior to permanent seeding, occurs after clearing, grubbing and grading operations. The limits are the same as that indicated on the typical section sheets for permanent seeding, and need not be shown elsewhere. A note on the sequence of construction sheets will suffice.

Erosion controls shown on the plan sheets reflect their initial placement.
During construction, some controls may need to change location based upon grade changes required to form the typical sections and based upon the location of detour roads. No additional payment will be made for the moving of erosion control devices at different sequences of construction. The former statement should be included in the notes of the construction sequence sheets.

Below is a reference table summarizing where erosion and sediment controls should be incorporated into the plan set.

E & S Control	Location in plan set	Include in summary tables?
Silt fence	plan, bridge general plan sheets	Not required
Slope drains	plan sheets	Yes, if not on plan sheets
Check dams	construction sequence sheets	Yes, if not on construction sequence sheets
Inlet protection	construction sequence sheets	Yes, if not on construction sequence sheets
Stone construction entrances	construction sequence sheets, if location known	No
Seeding, fertilizing, mulching & sodding (temporary & permanent)	typical section sheets	No
Erosion control systems	profile sheets	Yes, if not on profile sheets
Rip-rap (permanent)	plan, bridge general plan sheets	Yes, if used for channel lining

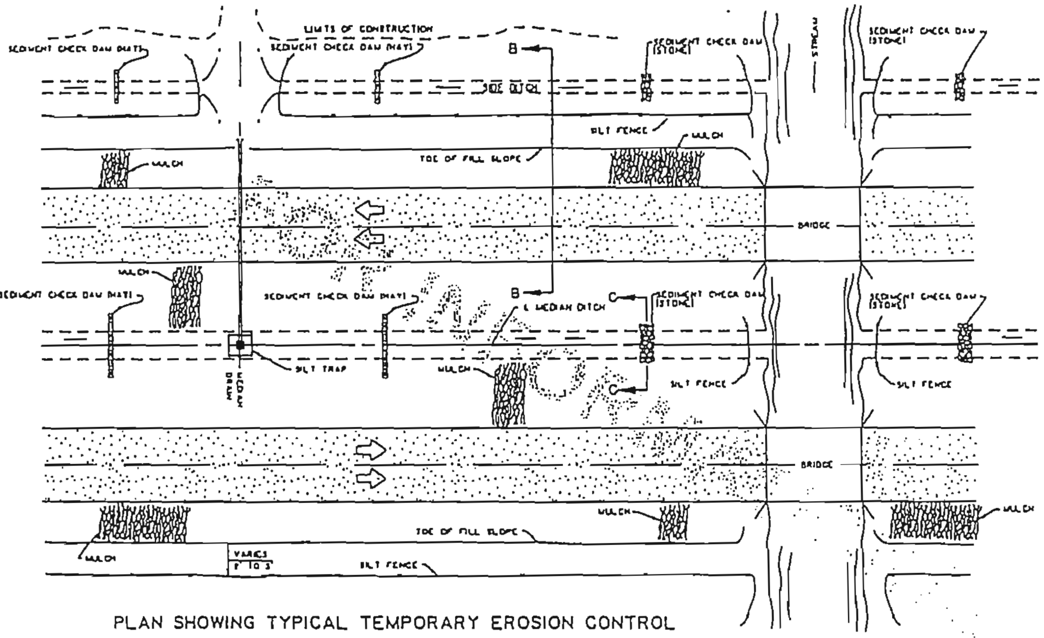
TEMPORARY EROSION AND SEDIMENT CONTROL SHEETS

The designer has the option of placing temporary erosion and sediment control measures on separate sheets. These should consist of layout sheets (similar to a construction sequence sheet) at a minimum scale of 1:000 or 1"= 80'. Layout sheets should indicate drainage patterns and, like the construction sequence sheets, a description of the phasing in of practices and controls. Temporary erosion control symbols should be included as part of a plan symbol legend on these sheets, and may include part or all of the construction legend to illustrate sequencing with roadway construction.

Where many controls are required such that may clutter these sheets, the controls should instead, be listed in tables on summary sheets, as mentioned previously. Permanent erosion controls should be shown on the appropriate sheets within the traditional plan set. They should be placed as soon as practical after clearing, grubbing, grading operations and if appropriate, after drainage installations.

Appendix M

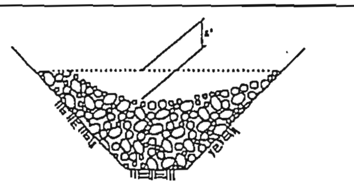
Standard Plan EC-O1, Temporary Erosion Control Details



PLAN SHOWING TYPICAL TEMPORARY EROSION CONTROL

MULCHES
Mulches are the application of mats of material placed on the soil surface to prevent erosion by protecting the soil surface from raindrop impact and to reduce the velocity of overland flow. Mulches can be organic or synthetic. Mulches shall be in accordance with subsection 1018.15 of the LA DOTD Standard Specifications. A few guidelines for the use of mulches are:

1. Use on cut and embankment slopes which have not been completed to plan grade or where the weather or soil conditions will not permit completing them within a reasonable time;
2. Use on cleared, grubbed, and seeded areas where soil erosion is likely to occur;
3. Use with temporary seeding.



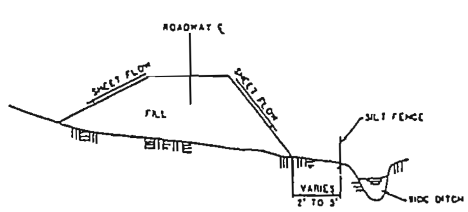
SECTION C-C

TEMPORARY SEDIMENT CHECK DAM (STONE)

PAY ITEM: 204(03)(B), TEMPORARY SEDIMENT CHECK DAM (STONE)

NOTES:
A stone check dam is a small temporary dam constructed across a swale or drainage ditch. The purpose of this measure is to reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the swale or ditch. The stone check dam will trap small amounts of sediments generated in the ditch itself, however it should not be used as a sediment trapping device. A few basic design guidelines for the use of Stone Check Dams are:

1. Use in small open channels which drain 10 acres or less;
2. Do not use in a live stream;
3. Use in a temporary ditch or swale which, because of their short length of service, cannot receive a non-erodible lining;
4. Use in permanent ditches or swales which will not receive a permanent lining for an extended period of time;
5. Use in temporary or permanent ditches or swales which need protection during the establishment of grass linings.
6. For stone specifications see subsection 711.02(a)(Class 2L.B.) of the LA DOTD Standard Specifications.

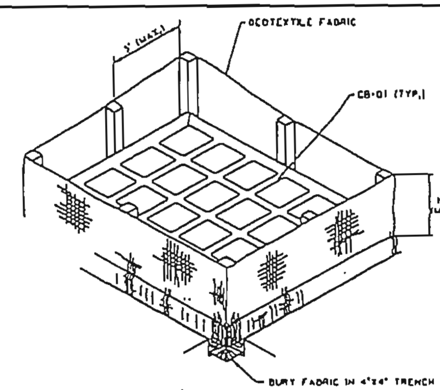


SECTION B-B

TEMPORARY SILT FENCE APPLICATION

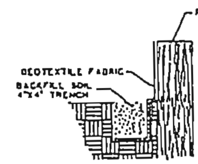
(FOR CONSTRUCTION DETAILS AND SPECIFICATIONS SEE SHEET 2 OF 2.)

F.A.P.	STATE PROJECT	PARISH	SHEET NO.



ISOMETRIC VIEW SHOWING GEOTEXTILE FABRIC

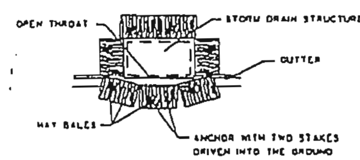
(BACKFILL SOIL NOT SHOWN)



SECTION THRU TRENCH SHOWING GEOTEXTILE FABRIC

NOTES:
The temporary drop inlet silt trap is to be used for small drainage areas (less than 1 acre) where the storm drain is functional before the area is stabilized. The trap can be either geotextile fabric or hay bales.

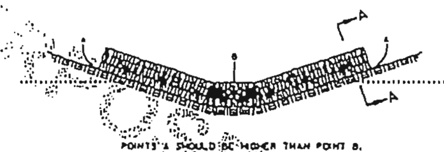
1. The geotextile fabric shall conform to Section 1019 (Type G) of the LA DOTD Standard Specifications.
2. Wooden stakes supporting the fabric shall be 2" x 2" or 2" x 4" with a minimum length of 3 feet. The stakes shall be spaced around the inlet at a maximum spacing of 3 feet.
3. The height of the fabric above the inlet shall be limited to 1.5' and the bottom of the fabric shall be buried in a trench approximately 4" wide by 4" deep. The fabric shall be stapled to the post with 1/2" staples.
4. The trap should be inspected regularly and after each storm. The sediment should be removed and make sure each stake is firmly in the ground.



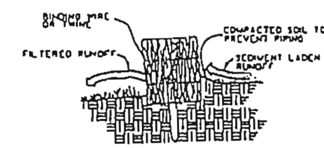
PLAN SHOWING HAY BALES

PAY ITEM: 204(02), TEMPORARY BALED HAY OR STRAW

TEMPORARY INLET SILT TRAP



ELEVATION



SECTION A-A

TEMPORARY SEDIMENT CHECK DAM (HAY)

PAY ITEM: 204(03)(A), TEMPORARY SEDIMENT CHECK DAM (HAY)

NOTES:
A hay bale barrier is a temporary sediment barrier consisting of a row of entrenched and anchored bales of straw or hay. The hay bale barrier is also used as a check dam to reduce the velocity in small ditches or swales. The hay bales shall be in accordance with LA DOTD Standard Specifications, Section 204. A few basic design guidelines for the use of a Hay Bale Barrier are:

1. Use where erosion would occur in the form of sheet and rill erosion;
2. Use in minor swales or ditches where the maximum drainage area is 2 acres;
3. Only use where the effectiveness is required for less than 3 months;
4. Do not use in live streams or in swales or ditches where there is a possibility of a washout.

DATE	DESCRIPTION		
	REVISIONS		

STANDARD PLAN NO. EC-01 — SHEET 1 of 2

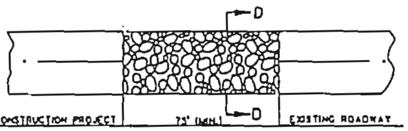
TEMPORARY EROSION CONTROL DETAILS

DATED: January 14, 1994

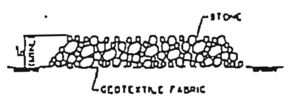
STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

[illegible]
[illegible]

Approved By Chief Engineer (Original Signed by Chief Engineer)



PLAN



SECTION D-D

TEMPORARY STONE CONSTRUCTION ENTRANCE

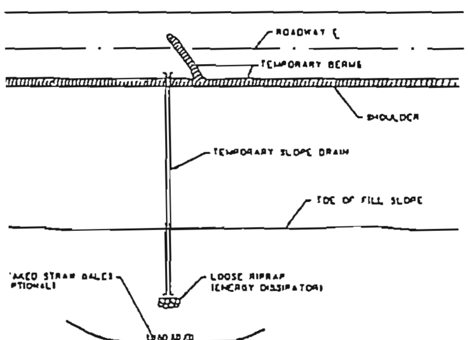
PAY ASI'S - ITEM', TEMPORARY STONE CONSTRUCTION ENTRANCE

NOTES:

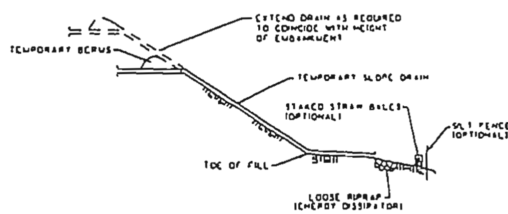
TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK

A stone stabilized pad located at points of vehicular ingress and egress on the construction site, to reduce the amount of mud transported onto public roads. If the action of the vehicle traveling over the gravel pad is not sufficient to remove the majority of the mud, then the tires must be washed before the vehicle enters a public road. A few basic design guidelines for the use of a Stone Construction Entrance and/or Wash Racks are:

1. The stone layer must be at least 6 inches thick;
2. The stone shall conform to Section 711(02)(Class 2LB) of the LA DOTD Standard Specifications;
3. The length of the pad must be at least 75 feet and it must extend the full width of the vehicular ingress and egress;
4. A geotextile fabric underliner is required. The geotextile fabric shall be in accordance with Section 1019 (Type D) of the LA DOTD Standard Specifications;
5. If a wash rack is necessary, provisions must be made to intercept the wash water and trap the sediment before it is carried off-site.



PLAN



ELEVATION

TEMPORARY SLOPE DRAIN

NOTES:

A temporary slope drain is a device used to carry water from the construction work area to a lower elevation. Slope drains may be plastic sheets, metal or plastic pipe, stone gutters, fiber mats, or concrete or asphalt ditches. A few basic design guidelines for the use of a Temporary Slope Drain are:

1. The spacing of the slope drains varies with the road grade.

For Grades:	0.0% - 2.0%	use 300' spacing
	2.1% - 5.0%	use 200' "
	Greater than 5.0%	use 100' "

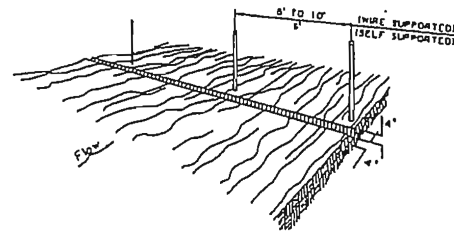
2. Slope drain material:

Smooth pipe	- 8" minimum
Corrugated pipe	- 12" minimum
Plastic sheeting	- 4' wide minimum
	- 3 mils thick min.

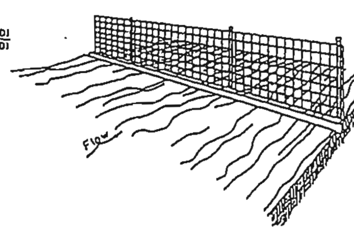
3. Plastic sheeting can be staked down or weighted with rocks or logs. The area under the sheeting should be shaped to provide an adequate channel.
4. The outlet end should be protected or have some means of dissipating energy. The flow should be directed through a sediment trap such as a silt fence or hay bales.
5. To insure proper operation, temporary slope drains should be inspected regularly and after each storm, for clogging or displacement. Erosion at the outlet should be checked and the silt traps cleaned if necessary.

F.A.P.	STATE PROJECT	PARISH	SHEET NO.

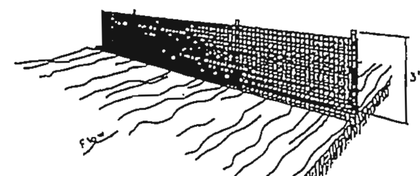
1. SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.



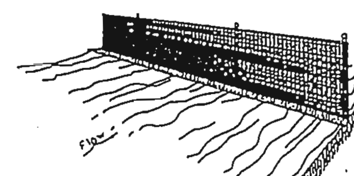
2. STAPLE WIRE FENCING TO THE POSTS.



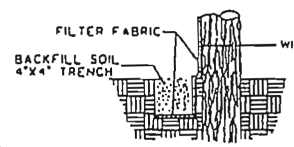
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT EXCAVATED SOIL.



EXTENSION OF FABRIC INTO THE TRENCH.



CONSTRUCTION OF TEMPORARY SILT FENCING

(WIRE SUPPORTED SILT FENCE IS SHOWN. SELF SUPPORTED SILT FENCE WILL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS.)

NOTES:

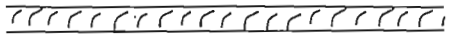
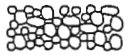
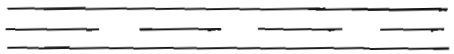
Silt fencing is a temporary sediment barrier consisting of a filter fabric supported by post and stretched across an area to intercept and detain small amounts of sediment. The silt fencing shall be in accordance with Section 204 of the LA DOTD Standard Specifications. A few basic guidelines for the use of Silt Fencing are:

1. Use where erosion would occur in the form of sheet and rill erosion;
2. Use where the maximum drainage area behind the silt fence is ½ acre per 100 feet of silt fence length;
3. Use where the maximum slope length behind the barrier is 100 feet;
4. Use where the maximum gradient behind the barrier is 2:1;
5. Do not use silt fences in live streams or in ditches or swales where flows exceed one cubic foot per second.

STANDARD PLAN NO. EC-01	SHEET 2 of 2
TEMPORARY EROSION CONTROL DETAILS	
DATE: January 14, 1994	
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
DESIGNED JCM	DETAILED KAJ
CHECKED	REVISED JCM
Approved By Chief Engineer [illegible]	

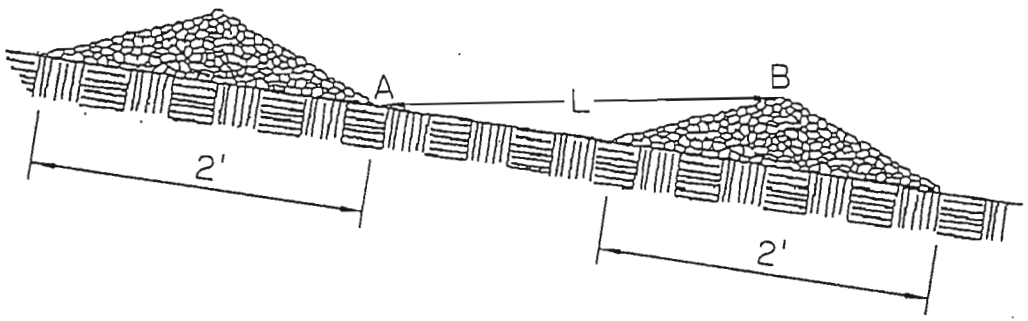
DATE	DESCRIPTION	BY
	REVISIONS	

TEMPORARY EROSION & SEDIMENT CONTROL SYMBOLOGY

SILT FENCE	
TEMPORARY BERM	
SEDIMENT CHECK DAM (STONE)	
STABILIZED CONSTRUCTION ENTRANCE	
HAY BALES OR SEDIMENT CHECK DAM (HAY)	
INLET PROTECTION	
TEMPORARY SLOPE DRAIN	

SPACING BETWEEN CHECK DAMS

L = THE DISTANCE SUCH THAT POINTS
A AND B ARE OF EQUAL ELEVATION



Appendix N

Plan in Hand Memorandum Review Form

PLAN-IN-HAND
MEMORANDUM REVIEW

DISTRICT NO.:_____ P/H INSPECTION MADE ON:_____

S.P. NO.:_____ ROUTE NO.:_____

F.A.P. NO.:_____ PARISH:_____

NAME:_____

PLAN-IN-HAND PARTY

NAME	TITLE	AGENCY	SECTION

PLAN-IN-HAND
INSPECTION REPORT

		YES	NO	COMMENTS
TYPICAL SECTION SHEETS:				
1.	Is the District in agreement with the proposed pavement types?			
SUMMARY SHEET:				
1.	Will an item for cleaning of existing ditches be required?			
2.	What types of temporary erosion control items will be required?			
3.	How many construction entrances will be required?			
4.	Is the method of payment for removal of pavement satisfactory?			
5.	Will temporary maintenance aggregate be required? If so, how much?			
6.	Will granular material be required for backfill?			
7.	Is the method of payment for earthwork satisfactory?			
8.	Are special erosion control items necessary?			
9.	Will an item for muck excavation be required?			

		YES	NO	COMMENTS
PLAN PROFILE SHEETS:				
1.	Is adequate right-of-way provided for relocation of utilities?			
2.	Will any right-of-entry agreements be required? Is this satisfactory? Who will secure it?			
3.	Will construction be impacted by existing horizontal or vertical clearance?			
4.	Is adequate outfall information shown?			
5.	Has sufficient drainage excavation and/or cleaning of outfall laterals necessary for adequate drainage been shown?			
6.	Will cleaning be required for existing drainage structures?			
7.	Will special ditch protection items be required?			
8.	Will any underdrains be required?			
9.	If retaining walls are necessary, will they be cast in place or mechanically stabilized?			
10.	Are there any oil or gas wells on the project that do not show up on the plans?			

		YES	NO	COMMENTS
11.	Are there any noticeable encroachments on the right-of-way? Are existing improvements within 50' of required right-of-way shown on the plans?			
12.	Any potential hazardous waste site/ust?			
13.	Will construction or drainage servitude be required?			
GEOMETRIC DETAILS:				
1.	Are there any areas where improvements can be made to the alignment?			
SEQUENCE OF CONSTRUCTION:				
1.	Is through traffic to be maintained?			
2.	For local traffic only, will school buses, mail carriers, or other local traffic require special maintenance of traffic provisions?			
3.	If temporary sheeting is required to maintain traffic, is the method of payment satisfactory?			
4.	Does the detour limits exceed the limits of roadway improvements?			
5.	Can detours be built due to grade difference between new and existing roadways?			

		YES	NO	COMMENTS
6.	Check for conflicts between new roadway and existing roadway being used to maintain traffic.			
7.	Method of payment for detour (if required).			
8.	Can drainage be maintained during construction?			

GENERAL:

1.	If sub-surface drainage is being used, is there any evidence of effluent sewerage entering existing roadside ditches?			
2.	Are all utilities shown? Pipelines shown in profiles, if applicable?			
3.	Have 60% comments been received from the District?			
4.	Are there any major utility conflicts?			
5.	Are there any major right-of-way conflicts?			
6.	Will sawed joints be required for limits of pavement removals (including walks, drives, cross-overs etc.)? If yes, is the method of payment satisfactory?			
7.	Will any materials be salvaged? If so, where should this material be hauled?			

		YES	NO	COMENTS
8.	Is there any extra-ordinary maintenance problems or procedures anticipated as a result of the proposed project?			
9.	Is a clearing and grubbing project recommended?			
10.	Will surcharging the embankment be required?			
11.	Are there any proposed permit requests that will affect this project? (404, NW,)			
12.	Are the drainage and construction servitude large enough for equipment mobilization?			
13.	If this project creates any additional mileage for our system has Planning been notified for potential exchange with cooperating agency?			
14.	Do any recommended changes exceed the original scope of the project?			
15.	Does the limit/scope of the project match those in the environmental document?			
16.	Are there any mitigation items that need to be addressed in plan development?			

17. List below any comments or recommendations concerning the roadway.

		YES	NO	COMMENTS
BRIDGE PLANS				
1.	Is stationing of beginning and end of existing bridge shown?			
2.	Is description of existing bridge shown?			
3.	Is high water elevation shown?			
4.	Is drainage area shown?			
5.	Is required area of opening shown?			
6.	Is stream navigable either by law or local usage?			
7.	Is a U.S.G.S. report recommended?			
8.	Have recommended channel changes been shown?			
9.	Is the stream meander shown within right of way and/or beyond where necessary?			
10.	Is sufficient right of way shown at each structure?			
11.	Is detour required? If yes, (A) has the location, type, length, width, area of opening, surfacing, and other details been shown?			

		YES	NO	COMMENTS
12.	Is stream subject to drift?			
13.	Is stream subject to scour?			
14.	Will revetments be required? If yes, has the type, location and other details been shown?			
15.	Is drainage excavation required?			
16.	Are pile design loads and type shown?			
17.	Have the borings been reviewed and approved?			
18.	Have location of test pile(s) been marked on the P/H prints?			
19.	Is the use of drilled shafts indicated?			
20.	Are there any utility lines that will interfere with pile driving operations and have they been shown on the P/H prints?			
21.	Are all utilities that may affect the construction accurately located and details on the P/H prints?			
22.	Is there a need for vibration monitoring and site surveys?			

		YES	NO	COMMENTS
23.	Are the location of expansion and fixed ends shown and are they satisfactory?			
24.	Are controlling vertical and horizontal dimensions shown?			
25.	Is the superstructure cross section satisfactory?			

26. The length of permanent piles is to be determined by:

Borings: _____

Test Piles: _____

Record of Existing Structure: _____

27. List below any comments or recommendations concerning this structure.

28. List below any special considerations or agreements recommended for negotiations by the Right-of-Way Section:

List below any additional or special information.

List general remarks, comments and/or recommendations below:

SHEET NO.	COMMENTS

The following special problems need to be resolved.

Prepared By: _____
Title: _____
Section: _____

VALUE ENGINEERING

Are there any items that are candidates for value engineering? ___ Yes* ___ No ___N/A

*If yes, please comment below

REMARKS:

Value Engineering Team Members:

Project Coordinator -
FHWA Area Engineer -

Appendix O

Project Delivery Manual Excerpts

On occasion, a permit will be issued for a section of highway for which an improvement project is planned. In such cases, the Project Manager should be consulted and kept fully informed to ensure proper coordination. The process for documenting the addition of utilities within state highway right-of-way is illustrated in figure 10.2. Reference is made to EDSM Number IV.2.1.3: "Policy for District Issuance of Right-of-Way Permits and Requiring Guarantee Deposit."

Compliance with Post-Construction Environmental Commitments

In some instances, the Department will agree to post-construction environmental actions or monitoring for a limited period as a condition of a regulatory agency permit or commitment to a community. Examples of such agreements include post-construction erosion control, maintaining vegetation installed for mitigation purposes, monitoring water quality in an adjacent stream, or monitoring traffic following construction to determine if a particular traffic control device, such as a signal, is warranted.

In many instances the District Maintenance Engineer will be the official charged with ensuring compliance with post-construction environmental commitments. However, in some instances, it may be the District Traffic Engineer or the Environmental Section. The Project Engineer is responsible for notifying the appropriate official(s) when construction has been completed and explaining the nature of post-construction environmental commitments, should they exist.

At the conclusion of the commitment, the official charged with compliance should notify the Environmental Section that the commitment has been fulfilled. The Environmental Section will in turn notify the appropriate regulatory agency or community officials.

Materials Durability and Performance Monitoring

The Department maintains an approved products list from which a contractor may select materials for use on state highway construction projects. Following construction, field monitoring of the durability and performance of these materials would obviously benefit the Department. The Materials and Testing Section should be advised of any materials that do not appear to perform well. The Material and Testing Section may in turn refer the matter to the New Products Evaluation Committee for consideration of removal of the product from the approved products list. Reference is made to EDSM Number V.4.1.1: "New Products Evaluation Committee."

10.3 Responsibility Matrix

STAGE 6 – SYSTEM OPERATIONS AND PERFORMANCE RESPONSIBILITY MATRIX	
FUNCTION	RESPONSIBLE
Disposal of excess right-of-way	District Maintenance Section, District Design Section, Real Estate Section
Documentation of additional utilities permitted on the right-of-way	District Utilities Unit
Compliance with post-construction environmental commitments	District Maintenance Section, District Traffic Engineering Section, Environmental Section (depends on nature of commitment)
Materials durability and performance monitoring	District Maintenance Section, District Traffic Engineering Section
Identification of design features that complicate maintenance activities	District Maintenance Section
Identification of design features that impede efficient traffic operations	District Traffic Engineering Section

Appendix P

MS4 Outfall Survey & Illicit Discharge Visual Screening Form

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Louisiana Department of Transportation and Development

MS4 Outfall Survey

GENERAL DATA

Date: _____ Investigator: _____

Parish: _____ Municipality: _____

Basin: _____ Sub-segment: _____

Route: _____ Control Section: _____

FIELD DATA

Outfall ID: _____ GPS Outfall ID: _____

Location/Address: _____

_____

Latitude: _____ Longitude: _____

Receiving Water: _____ Impaired: ☐Yes ☐No

PIPE		DITCH
Material Type		
Pipe Height		
Pipe Width		

NOTES

Photo: ☐Yes ☐No Photo number: _____

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Louisiana Department of Transportation and Development

Illicit Discharge Visual Screening

Date: _____ Investigator: _____

Municipality: _____ Outfall ID: _____

Location: _____

Discharge at time of inspection: ☐Yes ☐No Photo taken: ☐Yes ☐No Photo #: _____

If YES, complete section A. If NO, skip section A and complete section B.

Section A-Discharge Present

Odor	☐Yes ☐No	
Foam	☐Yes ☐No	
Color	☐Yes ☐No	
Sheen	☐Yes ☐No	
Turbid	☐Yes ☐No	
Floatables	☐Yes ☐No	
Vegetation	☐Yes ☐No	
Smoke/Vapor	☐Yes ☐No	

Source of Illicit Discharge: _____

Address: _____

Section B-No Discharge Present

Is there any evidence of previous illicit discharge? ☐Yes ☐No

If YES, please describe below.

Potential Source of Illicit Discharge: _____

Address: _____

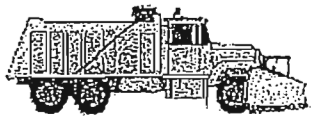
Section C

Comments

Appendix Q

LADOTD-MOPS-EQMS Screen Shots

MOPS -- on the Web



This site is best viewed with a display setting of 1024 x 768.
Documentation, on the far left, contains a detailed overview of this site.

Welcome to the web site of the Maintenance Operations (MOPS) system where data from CICSPROD is being made available in a variety of new ways. Please read on for a brief overview or view more detailed information by clicking on **Documentation** on the left. Questions, suggestions, or problems should be e-mailed to Leslie Mix or Susan Nichols.

Current Disasters

For information relating to the 2005 hurricanes and for "updated" MOPS for period endings since 08-28-2005. Summary reports and work order details are available. Also shown are links to "help" and other sites.

MOPS Overview

Maintenance work is reported on "work orders" by each maintenance gang into the PC-based WORD system. Every two weeks, that data is uploaded to the MOPS system. Some of the data flows to other systems eventually reaching the financial system Daily Journal (DAJR). The focus of these pages is to provide access to data from MOPS, however, options at the statewide and districtwide level provide information from DAJR as well since it is the only place to find comprehensive maintenance costs.

The accuracy and completeness at the entry level is vital to the overall usefulness of the data. The data is accumulated and used at the state level by HQ management for decision making and to answer requests for information from legislators. Word Orders may be retrieved in relation to lawsuits, both to defend DOTD and when requested by plantiffs.

Statewide, By District, By Parish

Each of these options shown at left provides access to information as needed for various reasons. The "By District" option lists every DOTD district and any section that has gangs reporting work using the WORD system. Individual gangs and their data may be viewed from here as well. The "By Parish" option allows access to functions and locations within a parish. Parish, function lists include data coded to that parish by any district or gang.

Control-Sections can be accessed from the district-gang or parish pages. When one control-section is selected, several DOTD systems are accessed to provide useful information on the control-section on one page. The TOPS description, TAHI geographic features, STRM bridges, overpasses and underpasses, TAHI Surface type log records and Maintenance Inventory are all shown. There are links to access the Maintenance work reported over the last 5 years and the TOPS projects for the control-

section.

Maintenance Work Reported in WORD

Access to maintenance work as reported in WORD is available in several places. The header above will always be the second line on the web page. Subsequent header lines will tell more about what data is included in the table that is displayed. Most summary tables allow drilling down to more detailed information. For the current and previous fiscal years, if the "Number Work Orders" value is clickable, the list of the actual work orders can be displayed.

Because of the volume of data (about 150,000 records per year), summaries of the data have been created. Some summaries are by function and some are by location; control-section being the location identifier.
Function summaries are available on district-gang, district, statewide, by parish and by control-section.
Location summaries are available by district-gang and parish.

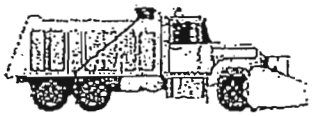
Keep in mind - ONLY data uploaded in WORD (or SORD) is shown. For each work order, Labor hours, Equipment usage, and Material usage is reported. Some gangs have chosen not to report materials usage in WORD. Changes to labor hours reported may also be made directly to the Payroll system and will not be reflected in WORD. The MOPS Cost shown is computed on the data uploaded to MOPS from WORD. True maintenance costs to LaDOTD will almost always be higher.

Future Plans

Work Orders will eventually allow viewing of the individual employees, materials and equipment used on a work order. Other summaries based on this individual data will eventually be made available. The extract from DAJR will be reviewed and revised and further breakdowns of Maintenance costs are planned. Other MOPS subsystems, such as Complaints, will be made available.

LAST UPDATES from MOPS
Work Orders includes work for FYs 2003-04 and 2004-05. Updated Wednesday following PE date.
Summaries available for 4 prior fiscal years. Year-to-date for current FY with most recent PE data.
Equipment from EQMS and Stock numbers from PIMS: updated every Friday night.
Functions, District-Gangs and Who's Who updated on demand.
Road Inventory: updated on demand, see page for date.

LaDOTD Equipment



This site is best viewed with a display setting of 1024 x 768.
Documentation, on the far left, contains a detailed overview of this site.

Welcome to the web site for DOTD Equipment. Here you will find information about equipment at DOTD that is available in EQUS on CICSPROD. As we migrate to ERP, data from EQMS is being copied to, and in some cases, modified, using EQUS. On this website you will find reporting capabilities previously not available in EQMS. Fuel data imported from the vendor and bulk fuel usage entered by the users is also available here. The equipment inquiries here replace those that were available on the MOPS site.

- Series Numbers - descriptions, usage rates, fema codes. Each equipment number belongs to a series.
- Numbered Equipment - vehicles, heavy equipment, boats
- Miscellaneous Equipment - chain saws, generators - numbers begin with "0"
- DOTD Bulk Fuel - For each location, each period ending, odometer and gallons to each equipment number
- Fueltrac Fuel - Transactions for Fuel and Maintenance charged on Fueltrac cards since Sept 1, 2009
- LPAA-ERP Info - Monthly data being created for load to LPAA (Protege)

LPAA, the Louisiana Property Assistance Agency, currently maintains a system called Protege where DOTD is required to keep an inventory of our equipment and movable property. The ERP system will be loading information from Protege. In addition to the inventory, fuel and maintenance records will also be loaded. An effort is being made using EQUS to load data that can be imported to ERP for testing and final conversion. Click on the LPAA-ERP Info link on the left of this page for additional information.

Questions, suggestions, or problems should be e-mailed one of the appropriate people:
Leslie Mix HQ Maintenance section
Bill Schear Equipment
Susan Nichols Info Technology section

LAST UPDATES
Equipment numbers updated nightly from EQMS/EQUS.
Fuel data imported monthly, approximatly the 5th of the month for prior month's purchases.

LaDOTD Equipment (EQUS)
Series Numbers/FEMA Codes

Series numbers contain a description, class, measurement of usage, cost associated with usage of the equipment, and FEMA code. Each equipment number has a "series number"; multiple pieces of equipment may be in the same series. Equipment numbers with "numbered equipment" usually begin with the series number. Miscellaneous equipment numbers always begin with a "0" and are followed by the district number. Their series numbers will always begin with "0" and may include the FEMA code.

Series Class Codes

Class Codes were established to group series codes together and especially to identify "Passenger" vehicles which have certain reporting requirements. Series ranges and related class codes are:

Series Codes	Equipment	Class Codes
00xxxx (FEMA) 09xxxx (other)	Miscellaneous	TOOL, TOOL GEN, TOOL SAW, TOOL MOW
100000 to 139000 181000 to 189000	Numbered	PASS CAR, PASS POL, PASS TRK, PASS VAN
140000 to 180000	Numbered	DUMP TRK, SIGN TRK, WORK TRK
200000 to 299000 800000 to 899000	Numbered	OFF-ROAD
300000 to 399000	Numbered	AIRCRAFT, MARINE, UTILITY

List series numbers and order by:

◉ Series ○ Class, Series ○ FEMA code, Series

Display Series Numbers

FEMA Codes and Equipment Rates

DOTD will begin using 2008 FEMA reimbursement rates as our rate approximately July 26, 2010. This is also the rate that is being used with the SAP Plant/Fleet module, where the FEMA code is called "activity code". The query below will display FEMA codes and the 2008 rates from the FEMA site along with the 30 character descriptions for the code that were established by LaGov.

List FEMA codes (activity codes) and order by:

◉ FEMA code ○ Description

Display FEMA codes

DOTD has associated a FEMA code with our Equipment Series numbers since Hurricane Katrina. If DOTD usage unit of measure differed from the FEMA unit of measure, DOTD worked with FEMA to determine a "FEMA rate" and the FEMA code was set as 9999. Current FEMA equipment codes and reimbursement rates may also be found at http://www.fema.gov/government/grant/pa/eqrates.shtm .

LaDOTD Equipment System (EQUS)
Equipment Reports

Defaults for each choice will cause everything to be listed.

Report Dist/Sect HQ - Headquarters Sections Date (YYYY-MM-DD)

Preventative Maintenance Reports on Passenger Vehicles (Must specify a date, can specify a dist/sect)

- (•) **Inspection less than yyyy-mm-dd**
- ( ) **Last oil less than yyyy-mm-dd**

Under Construction

General Equipment Reports (Can specify a series, class, report group)

Purchased Before Date

Purchased After Date

Odometer less than number

Odometer greater than number

Display Report

LaDOTD Equipment (EQUS)
Miscellaneous Equipment

Records are created and maintained by the Districts for items other than numbered equipment that need to be reported on maintenance work orders. Typically this includes chain saws and generators. An "equipment series" number is assigned to each miscellaneous number - click on "Series Numbers and FEMA" on the left for more information.

In ZWORD, Miscellaneous numbers begin with "F" for fake equipment number. F is added to the number shown here.
Ideally, the number is as follows... 0ddxxx. Some use the first 2 of the gang number for the first two x's.
Series number will also begin with "0" and is usually 00ffff where ffff is the FEMA code.
Instructions for entering Miscellaneous Equipment EQUS in CICSPROD. (August 3, 2010)

View statewide counts by series class.
View count by district of series classes.

Miscellaneous Equipment from the EQUS (EQMS) system as of 2011-03-17 at 20.00.52

Specify selection criteria for Miscellaneous Equipment numbers.

Dist/Sect Gang Class all

Order-- ○ Dist,Gang,Num ○ Dist,Num ○ Class,Dist,Num ◉ Equipment# ○ PropertyTag

Display Equipment

Are these items used on Work Orders?

Property Control Items in Protege as "EQUIPMENT" or "ASSETS"
as of July 15, 2010

Specify selection criteria for PROTEGE records that may have or need Miscellaneous Numbers.

Dist/Sect 02 Gang

Order by: ○ Asset Num ○ Location,Number ◉ Asset Class,Location,Number ○ Asset Class,Number,Location

Display Property Control

LaDOTD Equipment (EQUS)
Numbered Equipment

Equipment records are copied nightly from the Equipment Management system (EQMS) for "numbered" equipment. Numbered equipment includes all equipment numbered beginning with 100000 and higher. Lower equipment numbers for Miscellaneous Equipment such as chain saws and generators can be found under Miscellaneous Equipment on the left.

Equipment is assigned a six digit number, with each type of equipment having a six digit "series" number. Only "active" equipment is shown.
View series numbers and from the list you may select a series to view all equipment in it.
View counts by category (Passenger, trucks, etc.)
View all, by series number, district.
View all, by district, count of equipment.
View by district, count of each series class type.
View by district, count of each series number.

Below are various methods to select and list equipment from the EQUS (EQMS) system as of 2011-03-17 at 20.02.34.

Specify selection criteria for equipment numbers.

Dist/Sect Gang Equipment Series all series

Order by: (•) Series, Dist, Gang, Number ( ) Dist, Gang, Number ( ) Dist, Number ( ) Number

Display Equipment

Inquire on one piece of Equipment.

Equipment number (no dash) Search for Equipment Number

License number Search for License Number

Appendix R

SPC Questionnaire

Spill Prevention and Control Plan (SPC) Questionnaire

Facility Information:

Facility Name:_____

Address:_____

Facility Operator:_____

Facility Description (e.g. maintenance unit, storage yard, etc.):_____

(Please mark answers with an (X).)
Did operations at your facility begin before August 16, 2002: YES ☐ NO ☐

Information on Aboveground Storage Containers:

1. Does your facility have any SINGLE aboveground storage containers with a capacity of 660 gallons of oil or other chemicals: YES ☐ NO ☐

2. Does your facility have multiple containers with a TOTAL aboveground storage capacity greater than 1,320 gallons of oil or other chemicals: YES ☐ NO ☐

3. Do the aboveground containers have secondary containment: YES ☐ NO ☐

4. Oils stored in these aboveground containers:
   (Please mark all that apply.)
   a. Petroleum ☐
   b. Fuel Oil ☐
   c. Sludge ☐
   d. Vegetable Oils ☐
   e. Other Oils & Greases ☐
   f. Oil Refuse ☐
   g. Oil with Wastes Other than Dredged Spoil ☐
   h. Fats, Oil or Greases of Animal, Fish, or Marine Mammal Origin (including Synthetic Oils and Mineral Oils) ☐

5. Please list any chemicals, other than oils, stored in aboveground storage tanks at your facility:

   _____

6. Considering geographic location, in the event of a release, could your facility discharge oil or other chemicals into any:
(Please mark all that apply.)

a. Streams ☐
b. Ponds and Ditches ☐
c. Storm or Sanitary Sewers ☐
d. Wetlands ☐
e. Mudflats ☐
f. Sandflats ☐
g. Other Navigable Waters ☐

7. Please list the nearest potential receiving waters in case of an oil or other chemical spill:

a._____

b._____

c._____

8. Does your facility have any of the following spill prevention measures already in place:
(Please mark all that apply.)

a. Dikes, Berms, or Retaining Walls Sufficiently Impervious to Contain Oil Spills ☐
b. Curbing, Drip Pans ☐
c. Culverts, Gutters or Other Drainage Systems ☐
d. Weirs, Booms or Other Barriers ☐
e. Spill Diversion Ponds ☐
f. Retention Ponds ☐
g. Sorbent Substances ☐
h. Sumps and Collection Systems ☐
i. Additional Tanks to Automatically Receive Overflow ☐
j. Liquid Level Sensing Devices ☐
k. Other *(Please list)*:_____

Please complete and email form to Nicholas.Larks@la.gov by Monday, November 1, 2010.

Appendix S

De-icing/Anti-icing Agents-Statewide

MONTHLY USAGE: AGGREGATE,LIGHTWEIGHT,F/DEICING
(YD3 - Cubic Yard)

	2012												
Location Conducting Operations	January	February	March	April	May	June	July	August	September	October	November	December	201
D03/G510 - New Iberia MU					0.7		0.3	1	2				
D03/G520 - Dist Road Mat	5	3				2	10				13.05		
D03/G560 - Abbeville MU					0.5								
D03/G570 - Franklin MU		0.25					1						
D03/G580 - StMartinville MU								2.44					
D07/G510 - Calcasieu MU	2.5	6.75	1.75	7	13		5	2	7	4			
D07/G520 - DeRidder MU											5		
D07/G540 - Jennings MU						3		2			11	4	
D07/G570 - Creole MU			1			1							
D07/G580 - Oberlin MU													
D07/G720 - Calcasieu MU									2				
Grand Total	7.5	10	2.75	7	14.2	6	16.3	7.44	11	4	29.05	4	

Date Range: January 1, 2012 to December 31, 2012

MONTHLY USAGE: SALT,GRADE 1
50 LB/SACK

	2012							
Location Conducting Operations	January	February	March	July	September	November	December	2012 Total
D05/G510 - Farmerville MU		45						45
D05/G580 - OakGrove MU		2	3	6		2	2	15
D05/G590 - Lk Providence MU	6		4	6	5	5		26
Grand Total	6	47	7	12	5	7	2	86

Date Range: January 1, 2012 to December 31, 2012