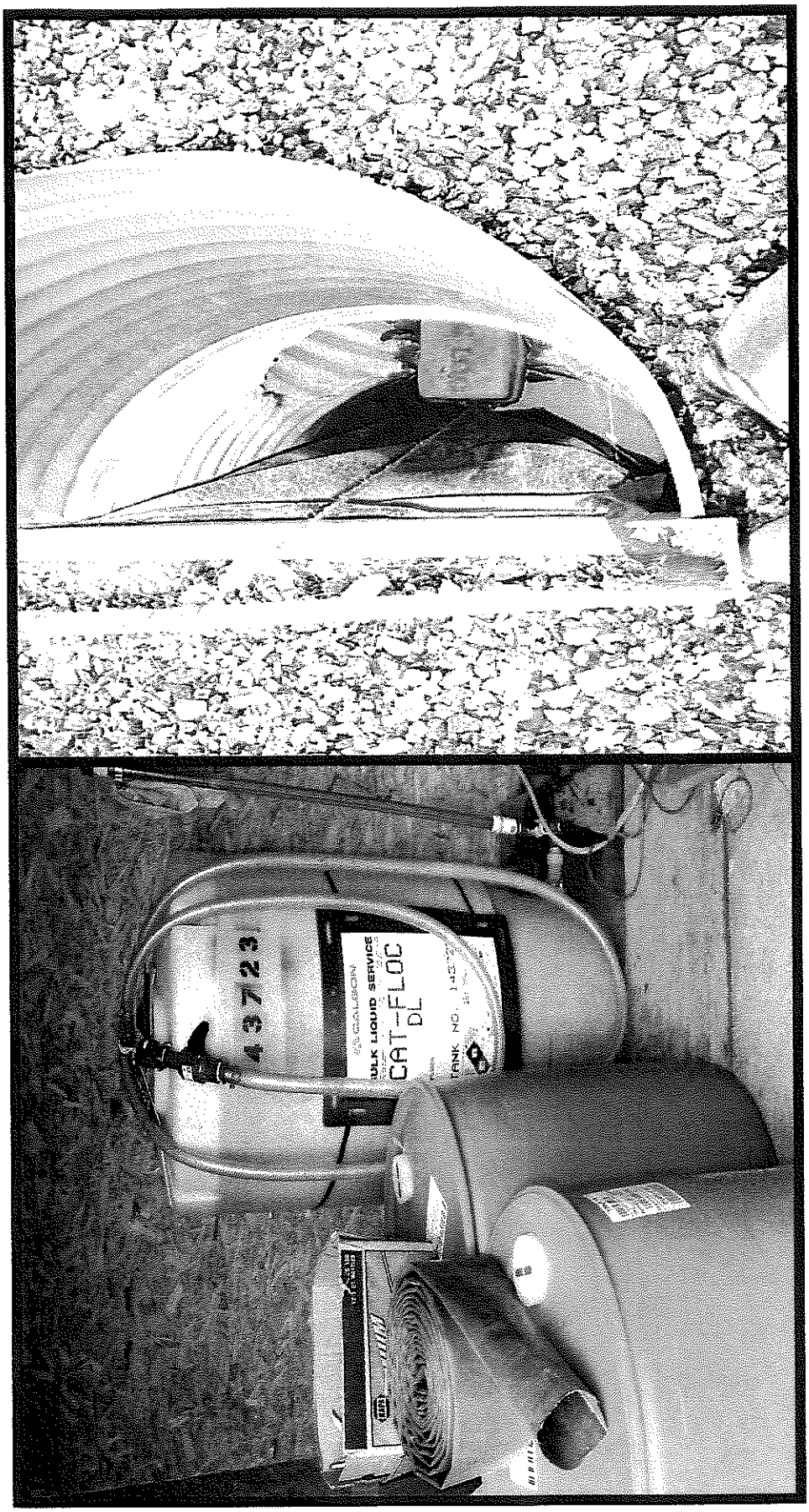
Flocculants

Treat the water so that clays and fine silts will settle.

Polyacrylamide must be applied at rate approved by DWQ Aquatic Toxicology Unit.

Included in Design Manual to provide guidance for safe and effective use.


43723
BULK LIQUID SERVICE
CAT-FLOC
DL
TANK NO.

Questions

Legal Overview
Storm Water Compliance

Judy Wiles

Basics

- Federal Law
- State Laws
- County and City Ordinances

The Clean Water Act of 1972

- CWA originally focused on "point source pollution". In the 1980's and 1990's Phase I regulations were added to include "non-point runoff" and "wet-weather point sources"
- Current Phase II emphasis is on watershed strategies designed to
  - Protect waters of the United States
  - Restore impaired waterways

CWA Protects and Restores

Navigable waters of the United States

Wetlands adjacent to waters that are navigable.

Isolated wetlands are regulated by the State.

Non-point Source vs. Point Source

"Non-point runoff"

Agricultural land, sheet flow

"Point Source"

Pipes, ditches, channel

"Wet-weather point source"

Construction sites

National Pollutant Discharge Elimination System (NPDES)

CWA prohibits any discharge without a permit

"Discharge" is defined as "<u>any addition</u> of <u>any pollutant</u> to <u>navigable waters</u> from <u>any point source.</u>

"Pollutant" is defined as "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials, lead, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste.

NPDES Permitting for Industrial Storm Water

- Construction activity on one or more acres
- Manufacturing
- Mineral, metal, oil, gas
- Hazardous waste
- Steam electric plants
- Recycling facilities
- Transportation
- Treatment works
- Landfills
- Light industry

NPDES Permitting for Construction

- **Construction General Permit –**
  - One permit issued on a state-wide basis for same or similar operations that discharge some waste.
  - Land Disturbance including clearing, grading, excavation and demolition

Who issues the CWA Construction General Permit?

EPA has delegated the NPDES CGP to the state in North Carolina and South Carolina

NC Construction General Permit

NCG010000

SC Construction General Permit

SCR100000

Erosion and Sediment Control Plan

NC - Erosion and Sediment Pollution Control Plan (ESCPC)

SC – Storm Water Pollution Prevention Plan (SWPPP)

E&SC plan is required as a condition of the CG permit

Must describe the nature of the construction activities

Must describe actual site conditions

Must be available for review of inspectors

Must be prepared by a consultant

Elements of E&SC Plan

- Site Description
- Control Measures / Best Maintenance Practices (BMPs)
- Runoff Control and Materials Management
- Post Construction Operation and Maintenance Plan
- Site Inspections
- Recordkeeping
- Erosion and Sediment Control
- Certifications

Permit Process

- Operator / Financial Responsible Owner
- Prepares E&SC plan
- In NC - files the application
- In SC - files NOI with state permitting agency
- Construct, inspect and maintain, keep records, update/modify the E&SC plan, respond to spills

State Sediment Control

NC governed by Sedimentation Pollution Control Act of 1973 (SPCA)

- The Act requires anyone involved in land disturbing activity of one acre or more to submit and E&SC plan
- Land Quality Section of North Carolina Department of Environment and Natural Resources is the regulatory agency
- -NC DENR

SC governed by Pollution Control Act (PCA)

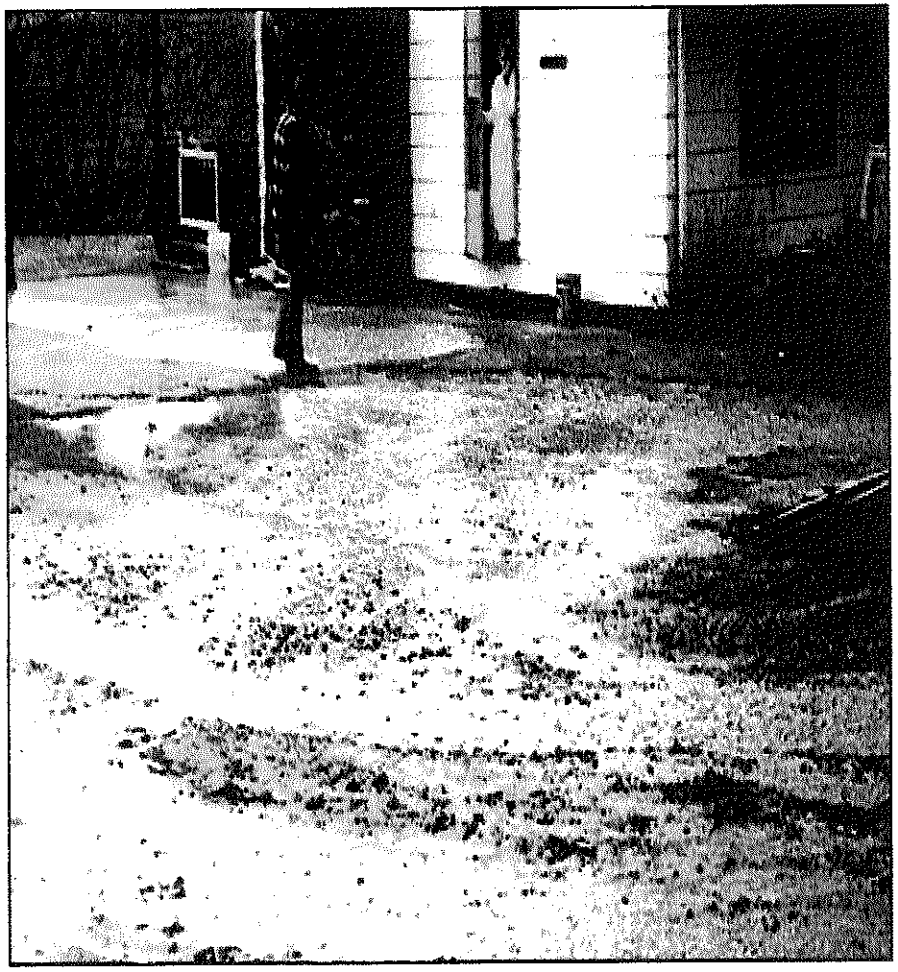
- The Act requires anyone involved in land disturbing activity of one acre or more to submit and E&SC plan
- South Carolina Department of Health and Environmental Control is the regulatory agency
- -SC DHEC

State Sediment Control Laws

Created to minimize the damage done to our streams by development

Recognizes the need for economic growth

State Sediment Control Laws



Goals

Keep Sediment from Entering Natural Watercourses

Keep Sediment from Impacting Adjacent Property Owners

NC State Mandatory Standards

1. **Buffer Zones**

   Along waterways must be sufficient to confine visible siltation within the first 25% of the buffer nearest to the land disturbing activity

   Can be mechanical or vegetated

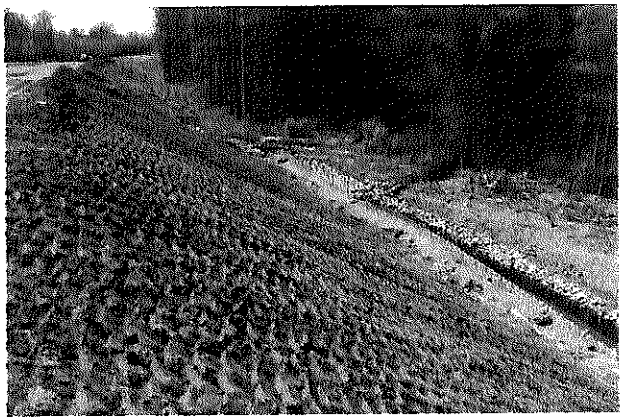
NC State Mandatory Standards

2. Exposed Slopes

Requires surfaces to be non-erosive and stable within 15 working days (or 90 calendar days, whichever is shorter)

Slopes must be vegetated within 21 calendar

Can be structurally or vegetatively stabilized



NC State Mandatory Standards

3. **Permanent Ground Cover and Sufficient Measures**

   Measures must be provided to retain sediment on site

   Permanent ground cover must be provided within 15 working days (or 90 calendar days of completion of the project, whichever is shorter).

NC State Mandatory Standards

4. E&SC Plan Requirement

Any land disturbing activity of one acre or more must have an approved erosion and sediment control plan

NC Sedimentation Pollution Control Act of 1973

Amendments Include:

- 5th mandatory standard
  - *"The land-disturbing activity shall be conducted in accordance with the approved erosion and sedimentation control plan."*
- Self-inspections
  - *"The landowner, the financially responsible party, or … agent shall perform an inspection of the area covered by the plan after each phase of the plan has been completed and after establishment of temporary ground cover"*
    - Maintain and make available on-site the inspection reports
    - Make note of any significant deviation from the plan, measures that may be needed to correct this deviation, and document the completion of those measures
    - Records will be maintained until permanent groundcover has been established

Failure to submit NOI or otherwise obtain an NPDES permit (when required)	$1,000.00 per day per violation
Failure to have the SWPPP available at the site	$1,000.00 per day per violation
Failure to have the NPDES Permit available at the site	$1,000.00 per day per violation
For failure to install a BMP	$2,000.00 per day per violation
For improper installation of a BMP	$1,500.00 per day per violation
For improper maintenance of a BMP	$1,500.00 per day per violation
For installation of an inadequate BMP	$1,500.00 per day per violation
For failure to conduct required inspections	$5,000.00 for each missed inspection
For failure to post Form I-1, signed NOI and NOC at project entrance	$1,000.00 per day per violation
For failure to maintain rain gauge or accurate records of rainfall at the site	$1,000.00 per day per violation
For failure install a required BMP (per construction sequence) prior to land disturbing activity	$1,000.00 per day per violation
For failure to provide guidance documents to the responsible land disturbing contractor	$1,000.00 per day per violation
For failure to hold a SWPPP pre-construction meeting prior to starting construction	$1,000.00 per day per violation
For failure to require action of the responsible contractor	$1,000.00 per day per violation
For failure to prevent significant impacts to Waters of The United States ("significant" being defined by AHJ issuance of a Notice of Violation stating impacts have been made)	$2,000.00 per day per violation
For failure to take corrective action due to an inspection	$1,000.00 per day for the first ten days of each violation, $2,500 per day for the next ten days of each violation, and $5,000 per day for each subsequent day of each violation
For failure to record dates when major grading activities occur, when activities temporarily or permanently cease, and/or dates when stabilization measures are initiated	$1,000.00 per day per violation
For failure to maintain accurate inspection and maintenance documentation	$1,000.00 per day per violation
For failure to maintain an updated plan (failure to modify plan as needed)	$1,000.00 per day per violation
For failure to initiate stabilization measures on a portion of a site where construction activity has either temporarily or permanently ceased for more than 14 days	$1,000.00 per day per violation
For failure to prevent litter, construction debris, concrete waste, or construction chemicals from being exposed to storm water discharges	$1,000.00 per day per violation
For failure to provide sub-contractor training	$1,000.00 for each missed training

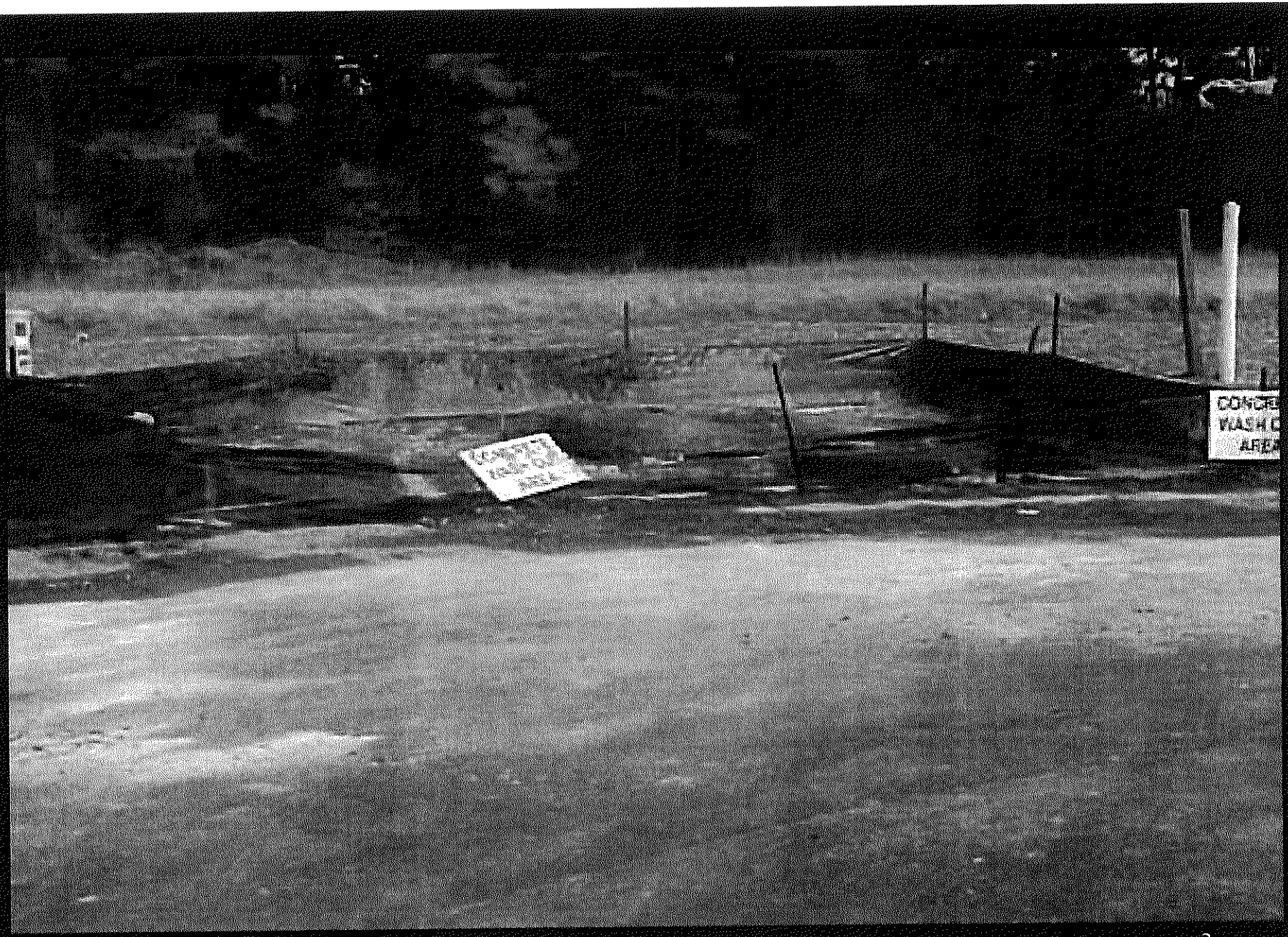
Questions

Concrete Wash out

2/10/2009

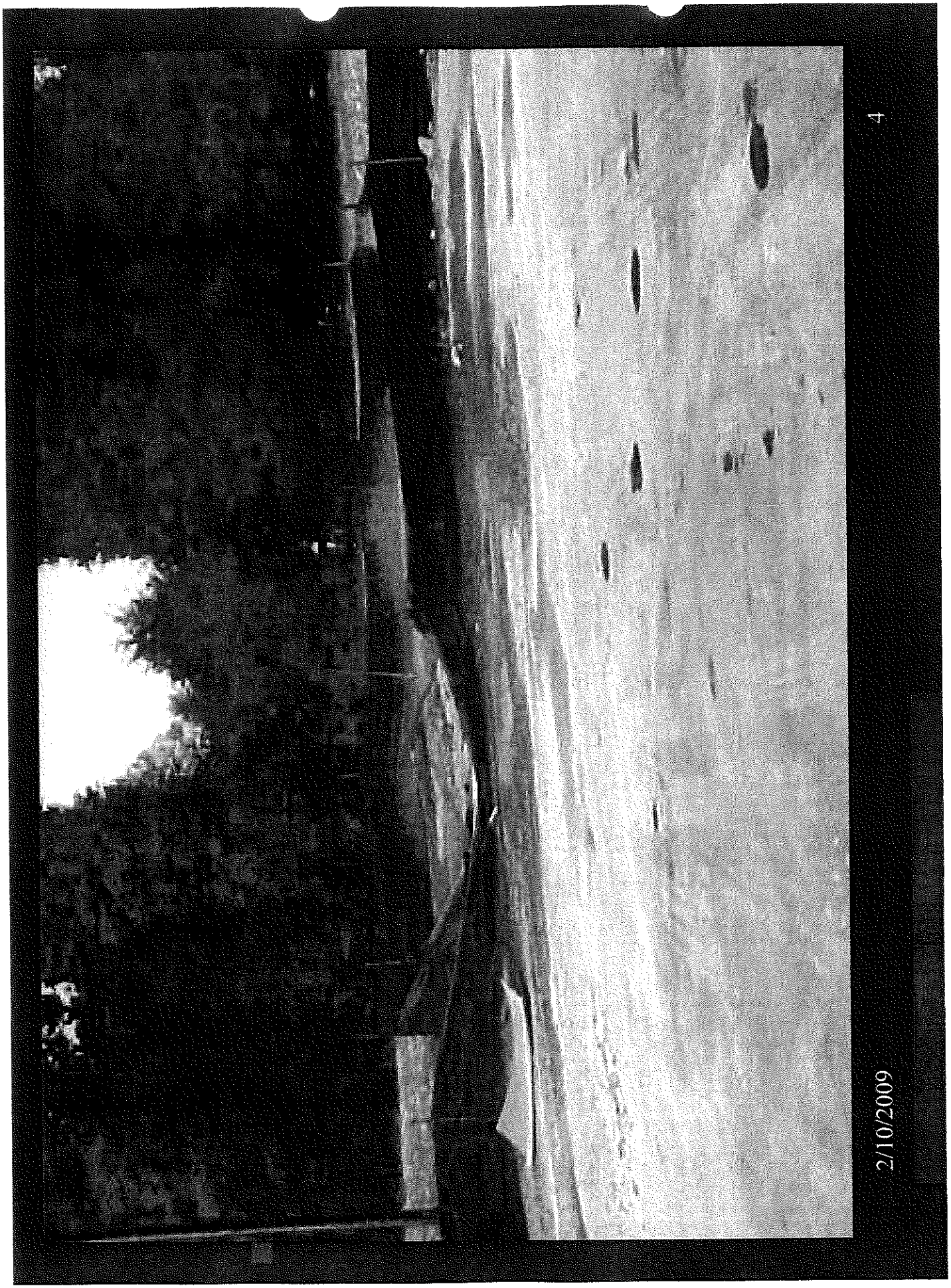
Our Current Practices:

[redacted]



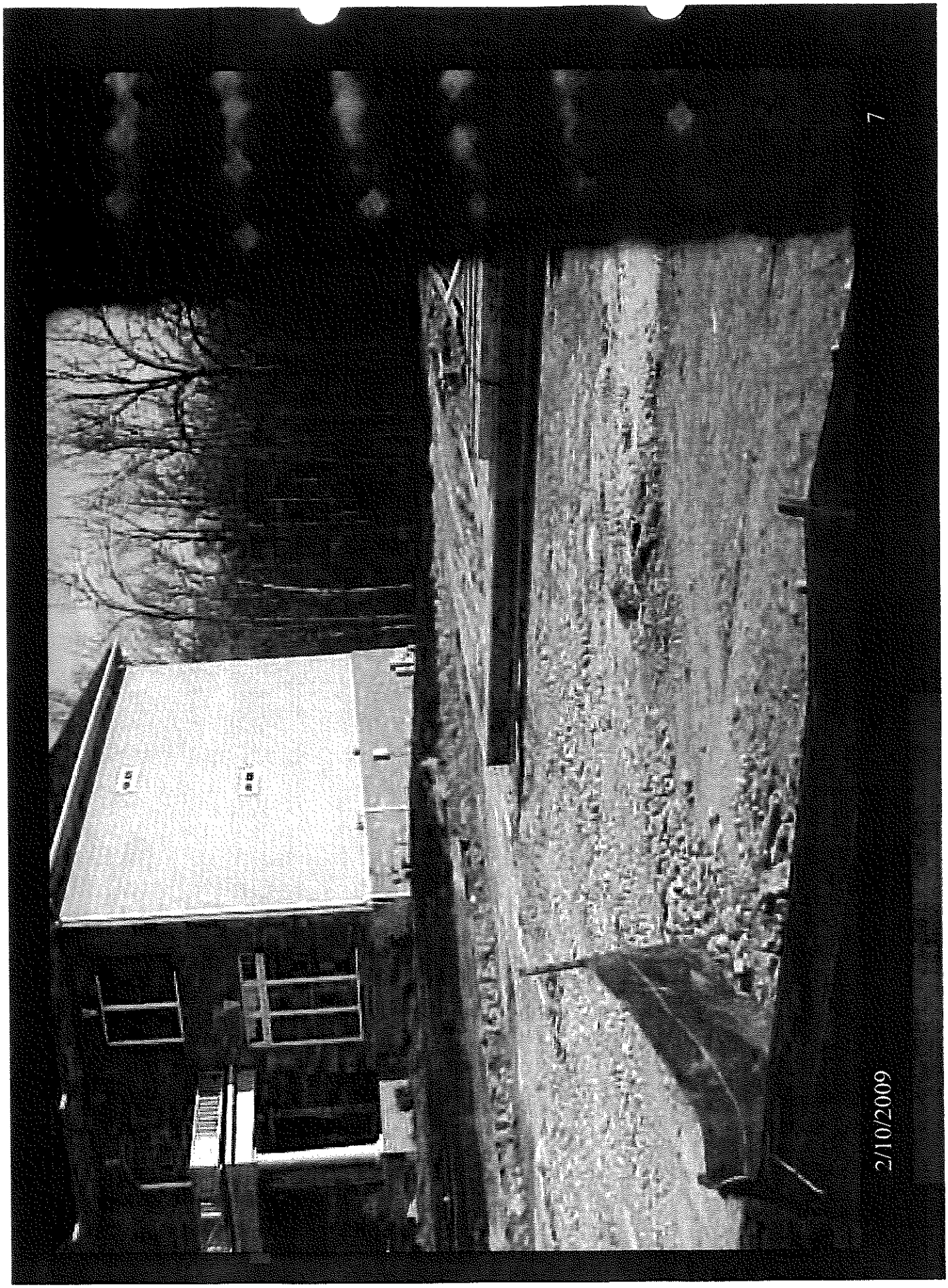
2/10/2009

3


4
2/10/2009

2/10/2009
5

2/10/2009


7
2/10/2009

Goal

- **Prevent any illegal discharge into surface waters**

Corrective Actions

- Set up a designated concrete wash out area
- Post "CONCRETE WASH OUT" sign
- Fax directions and a map to the designated wash out area to all concrete suppliers and the Compliance Manager.
- Remove old concrete wash areas
- Implement by 4/7/06

Wash out area

- Locate on level ground away from drop inlets
- Locate as far back from curb as possible considering reach of concrete chute
- Surround with properly trenched-in silt fence
- Install gravel between curb and wash out area if necessary for trucks to pull off street
- Keep in mind that run off cannot be allowed to flow onto the street