Certified Inspector of Sediment and Erosion Control Training Manual Module 4

(2022 Revised Edition V8 – Canada)

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Ontario Ministry of the Environment

Ontario

Module 4

Conducting Construction Site Inspections

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Conducting Construction Site Inspections

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Conducting Construction Site Inspections

ULTIMATE GOAL

Work with the contractor and permittee to minimize pollutants leaving a job site to the maximum extent practical.
In addition, prevent prohibited discharges from leaving a site, which can include:

- Wastewater from washout of concrete, stucco, paint, form release oils, curing compounds, and other construction materials,
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance,
- Soaps, solvents, or detergents used in vehicle and equipment washing and
- Toxic or hazardous substances from a spill or other release.

DURING THE SITE INSPECTION

During the site inspection, an inspector needs to verify what is shown on the ESC Drawings is what is actually installed in the field.

CLASSROOM EXAMPLE

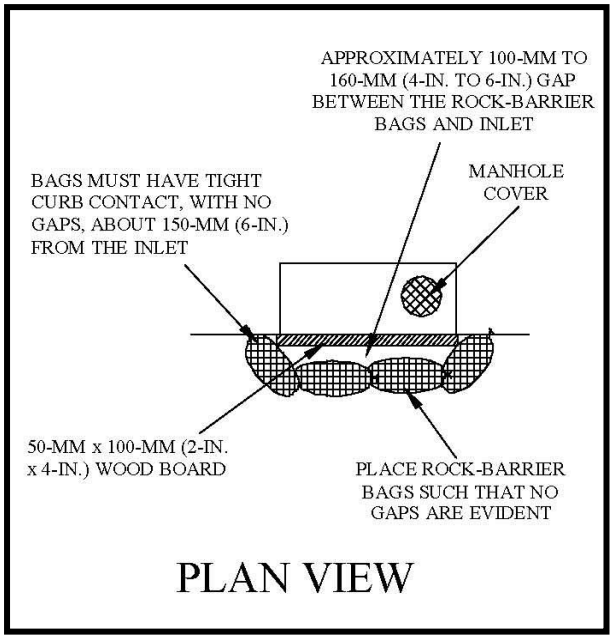

Figure 1 Detail from the ESC drawing

Figure 2 BMP installed on the construction site

1. Is the BMP installed properly and similar to the detail sheet or as amended?
    a. Does the installation follow what is found on the ESC Drawings?
        i. If not, what is different?
    b. Will it function correctly as found on the site?
        i. If not, what needs to occur?
    c. Should changes occur at the site or in the ESC Report and/or drawings?

Conducting Construction Site Inspections

MAINTENANCE OF BMPS

Contractors should follow the following for effective BMPs:

- **I**nstall BMPs in a correct manner.
- **I**nspect BMPs frequently.
- **M**aintain BMPs.

If sediment and erosion control measures are to remain effective, they must be installed correctly, inspected in a timely manner, *and* maintained. Repairing barriers, removing accumulated sediment from containment systems, and evaluating whether vegetation is established are a few of the many items that need to be considered.

Maintenance completed on sediment and erosion control measures must be recorded on inspection forms. Completed inspection reports be kept at the construction site and available for review by regulatory (federal, state, and local) agencies. It is recommended that all inspection forms be retained by the applicant for three years.

The following tables provide suggested minimal inspection and maintenance requirements of sediment and erosion control measures found on construction sites. Space has been provided for the reader to add additional requirements that may be necessary due to local regulations, specific site conditions, personnel preferences, and so forth.

TABLE 1: INSPECTION AND MAINTENANCE OF BMPS

BMP	INSPECTION	POSSIBLE MAINTENANCE
Sediment Containment Systems	Constructed to specifications?	List what action is required.
	Functional outlet structure?	Repair or replace.
	Accumulated sediment?	Remove, place upstream, and stabilize.
	Long flow-path length?	Install baffles.
Bale Barriers	Installed in a trench?	If not, reinstall.
	Backfilled?	If not, backfill the bales.
	Staked?	At least two per bale are needed.
	Destroyed?	Replace.
	Accumulated sediment?	Remove, place upstream, and stabilize.
Silt-Fence Barriers	Proper placement of stakes?	If not, reinstall.
	Material in a trench?	If not, reinstall.
	Accumulated sediment?	Remove, place upstream, and stabilize.
	Used in a drainage ditch	Remove the structure

Conducting Construction Site Inspections

Table 1: Inspection and Maintenance of BMPS

BMP	INSPECTION	POSSIBLE MAINTENANCE
Silt Fence Barriers (cont.)	Used around inlets	Remove the structures
Other Barriers	Improper installation?	Install another method.
Bale Check Structures	Installed in a trench?	If not, reinstall.
	Side slopes steeper than 7H:1V?	Look for other measures.
	End bales above flow line bales?	If not, reinstall to force runoff over the flow line bales.
Rock Check Structures	Correct rock diameter?	If wrong diameter, replace.
	Water flowing around the end?	Extend rock.
Other Check Structures		
Inlet Protection	Cover over structure?	Create an opening.
	Bale barrier on concrete?	Replace with rock.
Diversion Dikes	Erosion of the structure?	Complete repairs and stabilize.
	Improper location?	Remove and relocate.
Slope Drains	Runoff not flowing into the structure?	Repair the containment system. Check to see if runoff is being diverted to the structure.
	Runoff flowing into and past the pipes?	Install a larger-diameter pipe. Contact the designer to determine whether the design storm event was exceeded. Add more drains.
	"Tunneling" of the containment Dike is evident?	Repair the embankment with sandbags.

Conducting Construction Site Inspections

Table 1: Inspection and Maintenance of BMPS

BMP	INSPECTION	POSSIBLE MAINTENANCE
Controlling Wind-Borne Particles	Is the ground smooth?	Develop furrows perpendicular to the prevailing wind direction.
	Do barriers exist?	Install barriers perpendicular to the prevailing wind direction.
Vegetation Establishment	Has the specified mixture been used?	If not, reseed.
	Inadequate growth?	Evaluate time of year; plant again.
	Spotty growth?	Soil conditions, excess moisture, or need to apply more seed.
	Intrusion of noxious weeds?	Implement weed control.
Dry Mulch	Coverage 80% to 100%?	If not, reapply.
	Movement of material?	Need to anchor to the ground by crimping or tackifier.
Hydraulic Mulch and Other Products	Adequate coverage?	If not, reapply.
	Deterioration?	If not evident, do nothing. If evident and vegetation is not evident, repair and reapply. If evident but vegetation is occurring, wait and complete another inspection at a later date.
	Is vegetation becoming established?	If no, evaluate whether climatic conditions have been adequate for establishment. If no, reapply. If yes, do nothing.
RECP for Slope Protection	Improper installation at top?	Put in trench or extend onto flat area.
	Inadequate number of staples?	Add more staples.
	Sides not in trench or stapled?	Install staples or place in a trench.

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Table 1: Inspection and Maintenance of BMPS

BMP	INSPECTION	POSSIBLE MAINTENANCE
RECP for Slope Protection (cont.)	Has seeding been completed?	If not, remove product and plant seed.
ECB and TRM for Channel Protection	Proper material used?	Work with the designers to ensure proper selection has occurred
	Improper installation at top?	Repair or use riprap check.
	Lack of staple checks?	Install staple or riprap checks.
Additional Techniques		
Wind Erosion Control	Use of cover crops?	Timing of planting, type of grass.
	Use of hydraulic mulch?	Increase application rate.

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MATERIAL FOR SCENARIO NO. 1

ESC Report, ESC Drawings and Records

Conducting Construction Site Inspections

PROJECT CONDITIONS

- **You are contracted to conduct storm water compliance inspections.**
- **Today is a routine inspection (not triggered by a rainfall event).**
- **Assume you are contracted to do all updates.**
- **Project status is unknown this time.**
  - **However, grading activities have been occurring for six months.**
- **Some roads are paved.**
- **There is a construction trailer on the site.**

Conducting Construction Site Inspections

STORMWATER TEAM

Permittee: Example Development
12345 First Street
Any Town, Any Province Postal Code
(XXX) 123- 4567

Contact Information: I. M. Aperson
Example Development
12345 First Street
Any Town, Any Province Postal Code
(XXX) 123- 4567

Person Responsible for Plan: Mr. Loman Onthetotempol

Project Name: Example Development

Project Location: Southeast of the intersection of South “K” Avenue and West “A” Avenue in Any Town, Any Province, Postal Code.

Receiving Waters: Storm waters discharge into the “Lake” via local tributaries that drain into major drainage channels.

NATURE OF CONSTRUCTION ACTIVITY

This project consists of developing land for a subdivision and commercial area. Construction activities on the site will consist of removing existing vegetation, grading of the land, installing utilities, paving, and development of the land for a subdivision and commercial area. This project will disturb approximately 15.0 hectares (37.1 acres) out of a total of 17.0 hectares (42.1 acres).

SEQUENCE FOR MAJOR ACTIVITIES:

Construction tasks to be completed will include the following sequential activities.

- Removal of existing vegetation,
- Clearing and grubbing of the land,
- Grading,
- Installing utilities,
- Development and paving of roads, and
- Construction of commercial and single-family homes.

SITE MAP:

A map has been included with this ESC report.

SITE PLANNING DOCUMENTATION

Soils on the project have the following characteristics:

Symbol	Type of Soil Material	Percent of Site	Wind Erodibilty	Comments
A5b5	Sandy Loam	100%	3	Low to moderate water erosion and wind hazards and moderate to high runoff potential.

Predominate soils of the site are moderately deep and well drained.

Historic vegetation for this area is pasture grass.

CONSTRUCTION SITE POLLUTANTS

It will be the responsibility of the heavy equipment contractor to take appropriate actions to ensure pollution of storm water does not occur. Fueling areas will be at least 30 metres (100-ft.) from drainage channels and/or storm sewer systems. The heavy equipment contractor will be responsible for protecting the soil from contamination due to any hydrocarbon or other hazardous spills associated with his contractual obligations.

Contractors will also be responsible for preventing soil contamination where building materials, fertilizers, chemicals, waste piles or other potential hazardous materials may exist.

No dedicated concrete or asphalt batch plants will exist on this site.

NON-STORM WATER COMPONENTS OF DISCHARGE

There is no non-storm water components of discharge associated with this project.

DESCRIPTIONS OF STORMWATER CONTROL MEASURES

Reduction of sediment in runoff waters will occur in the following manner (see the S&E Control drawings for more detailed illustrations).

1. Before overlot grading activities begin, the following BMPs will be installed:
    a) Installation of a storm sewer pipe to convey offsite flows away for the project site.
    b) Silt fence barriers as illustrated on the drawings.
    c) Install rock barrier at culvert.
    d) Vehicle tracking pads at major entrances into the site.
2. During initial overlot grading activities, installation of one or more of the following BMPs will occur:
    a) As soon as feasible, complete a rough installation of the detention ponds (with outlet structures) and convert them into sediment containment systems (SCSs).
    b) Install additional silt fence barriers as necessary to minimize discharge of sediment into waterways.
    c) Apply erosion control materials.
3. During major overlot grading activities, one or more of the following tasks will occur:
    a) Install diversion structures to ensure the discharge of runoff into an SCS.
    b) Maintain all sediment and erosion control BMPs.
    c) Install utilities.
    d) Install barriers at inlet.
    e) Apply erosion control materials.
4. After grading activities are completed, the following tasks will occur:
    a) Paving of roads.
    b) Construction of homes.
    c) Installation of landscaping material.
    d) Maintenance of SCSs until 80% full buildout of development.
    e) Maintenance of sediment and erosion control methods.

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Sediment and Erosion Control Methods

Sediment control measures will include one or more following techniques with installation of additional methods occurring as deemed necessary by the designer.

- Silt fence and/or diversion barriers
- Barriers in front of “sump” inlets
- Vehicle tracking pads
- Sediment containment systems

Offsite tacking of soil will be minimized by at least weekly removal of accumulated sediment in access streets. More frequent sediment removal will occur when significant buildup is evident.

Erosion control measures will include one or more of the following methods:

- Construction of homes
- Installing landscaping materials
- Placement of pavement
- Applying erosion control materials

Final stabilization of the site will occur by placement of pavement, planting temporary and/or perennial grass seed on disturbed lands, and installing landscape material on the lots and in common areas.

Inspection and Maintenance

Inspections of sediment and erosion control measures will occur after any significant wind or precipitation event that causes runoff. As a minimum, inspection of all sediment and erosion control facilities will occur at least once every 14 days while construction activities occur.

Inspections will occur until final stabilization of the site has occurred, which is defined as vegetative cover of at least 70% of historic conditions, completion of 100% of the commercial area, and completion of 100% of the homes sites.

Inspection of sediment and erosion control measures will include at least the following:

- Removal of accumulated material collected by SCSs or barriers once a 50% reduction of the storage capacity for the structures becomes evident,
- Repairing damage to sediment control structures,
- Adding or eliminating sediment and/or erosion control measures as deemed necessary,
- Immediate repair and/or replacement of BMPs when failure occurs or the mitigation measures are ineffective.

Records of each inspection will reside with the contractor, developer, or their representative.

Training

Documentation is on file for each operator.

Endangered Species

There are no known endangered species on this project site.

Historic Properties

There are no known historic properties on this project site.

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SEDIMENT AND EROSION CONTROL DRAWINGS

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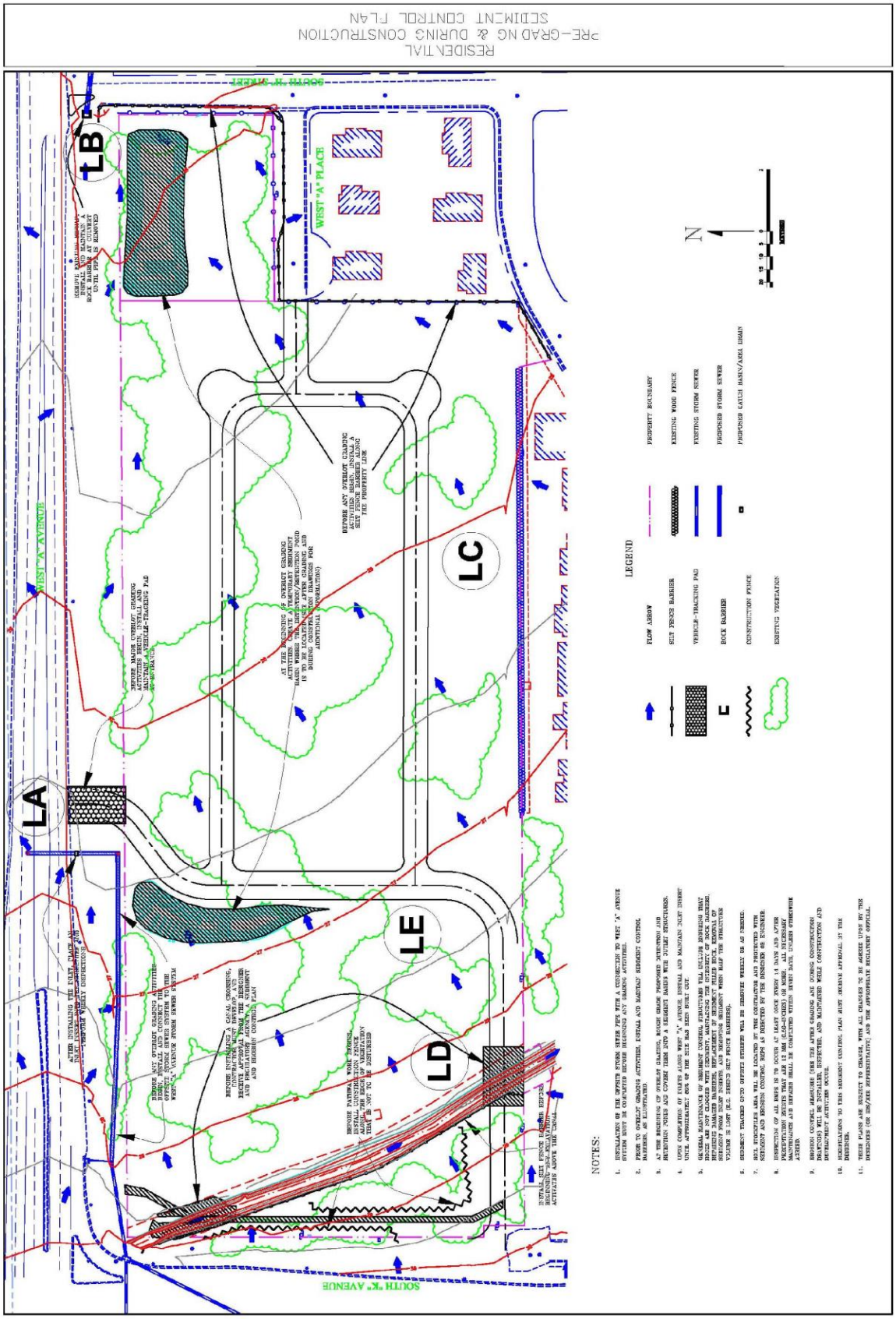

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Pre-Grading and During Construction Notes

1. INSTALLATION OF THE OFFSITE STORM SEWER PIPE WITH A CONNECTION TO WEST "A" AVENUE SYSTEM MUST BE COMPLETED BEFORE BEGINNING ANY GRADING ACTIVITIES.

2. PRIOR TO OVERLOT GRADING ACTIVITIES, INSTALL AND MAINTAIN SEDIMENT CONTROL BARRIERS, AS ILLUSTRATED.

3. AT THE BEGINNING OF OVERLOT GRADING, ROUGH GRADE PROPOSED DETENTION AND RETENTION PONDS AND COVERT THEM INTO A SEDIMENT BASINS WITH OUTLET STRUCTURES.

4. UPON COMPLETION OF INLETS ALONG WEST "A" AVENUE, INSTALL AND MAINTAIN INLET PROTECTION UNTIL APPROXIMATELY 80% OF THE SITE HAS BEEN BUILT OUT.

5. GENERAL MAINTENANCE OF SEDIMENT CONTROL STRUCTURES WILL INCLUDE ENSURING THAT ROCKS ARE NOT CLOGGED WITH SEDIMENT, MAINTAINING THE INTEGRITY OF ROCK BARRIERS, REPAIRING DAMAGED BARRIERS, REPLACEMENT OF SEDIMENT FILLED ROCK, REMOVAL OF SEDIMENT FROM INLET INSERTS, AND REMOVING SEDIMENT WHEN HALF THE STRUCTURE VOLUME IS LOST (E.G. BEHIND SILT FENCE BARRIERS).

6. SEDIMENT TRACKED ONTO OFFSITE STREETS WILL BE REMOVED WEEKLY OR AS NEEDED.

7. SOIL STOCKPILES AREA WILL BE LOCATED BY THE CONTRACTOR AND PROTECTED WITH SEDIMENT AND EROSION CONTROL BMPS AS DIRECTED BY THE DESIGNER OR ENGINEER.

8. INSPECTION OF ALL BMPS IS TO OCCUR AT LEAST ONCE EVERY 14 DAYS AND AFTER PRECIPITATION EVENTS THAT ARE 12 mm (0.50-IN.) OR MORE. ALL NECESSARY MAINTENANCE AND REPAIRS SHALL BE COMPLETED WITHIN SEVEN DAYS, UNLESS OTHERWISE AGREED.

9. EROSION CONTROL MEASURES (SEE THE AFTER GRADING AND DURING CONSTRUCTION DRAWINGS) WILL BE INSTALLED, INSPECTED, AND MAINTAINED WHILE CONSTRUCTION AND DEVELOPMENT ACTIVITIES OCCUR.

10. THESE PLANS ARE SUBJECT TO CHANGE, WITH ALL CHANGES TO BE AGREED UPON BY THE DESIGNERS (OR HIS/HER REPRESENTATIVE) AND THE APPROPRIATE GOVERNMENTAL AGENCY OFFICIAL.

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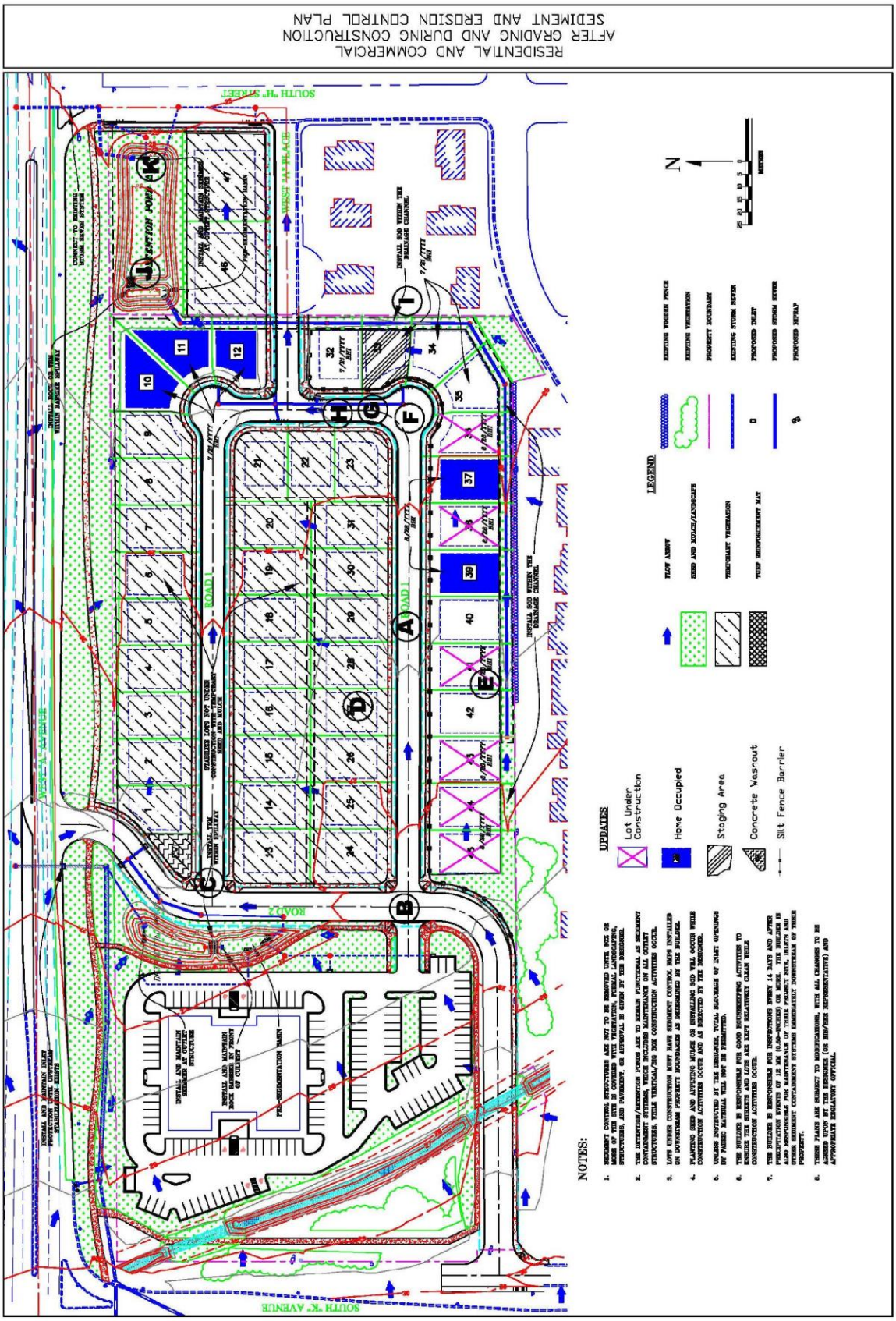

Conducting Construction Site Inspections

After-Grading and During Construction Notes

1. SEDIMENT CONTROL STRUCTURES ARE NOT TO BE REMOVED UNTIL 80% OR MORE OF THE SITE IS COVERED WITH VEGETATION, FORMAL LANDSCAPING, STRUCTURES, AND PAVEMENT, OR APPROVAL IS GIVEN BY THE DESIGNER.

2. THE DETENTION/RETENTION PONDS ARE TO REMAIN FUNCTIONAL AS SEDIMENT CONTAINMENT SYSTEMS, WHICH INCLUDES MAINTENANCE ON ALL OUTLET STRUCTURES, WHILE VERTICAL/BIG BOX CONSTRUCTION ACTIVITIES OCCUR.

3. LOTS UNDER CONSTRUCTION MUST HAVE SEDIMENT CONTROL BMPS INSTALLED ON DOWNSTREAM PROPERTY BOUNDARIES AS DETERMINED BY THE BUILDER.

4. PLANTING SEED AND APPLYING MULCH OR INSTALLING SOD WILL OCCUR WHILE CONSTRUCTION ACTIVITIES OCCUR AND AS DIRECTED BY THE DESIGNER.

5. UNLESS INSTRUCTED BY THE DESIGNER, TOTAL BLOCKAGE OF INLET OPENINGS BY FABRIC MATERIAL WILL NOT BE PERMITTED.

6. THE BUILDER IS RESPONSIBLE FOR GOOD HOUSEKEEPING ACTIVITIES TO ENSURE THE STREETS AND LOTS ARE KEPT RELATIVELY CLEAN WHILE CONSTRUCTION ACTIVITIES OCCUR.

7. THE BUILDER IS RESPONSIBLE FOR INSPECTIONS EVERY 14 DAYS AND AFTER PRECIPITATION EVENTS OF 12 mm (0.50-IN.) OR MORE. THE BUILDER IS ALSO RESPONSIBLE FOR MAINTENANCE OF THEIR PROJECT SITE, INLETS AND OTHER SEDIMENT CONTAINMENT SYSTEMS IMMEDIATELY DOWNSTREAM OF THEIR PROPERTY.

8. THESE PLANS ARE SUBJECT TO MODIFICATIONS, WITH ALL CHANGES TO BE AGREED UPON BY THE DESIGNER (OR HIS/HER REPRESENTATIVE) AND THE APPROPRIATE GOVERNMENTAL AGENCY OFFICIAL.

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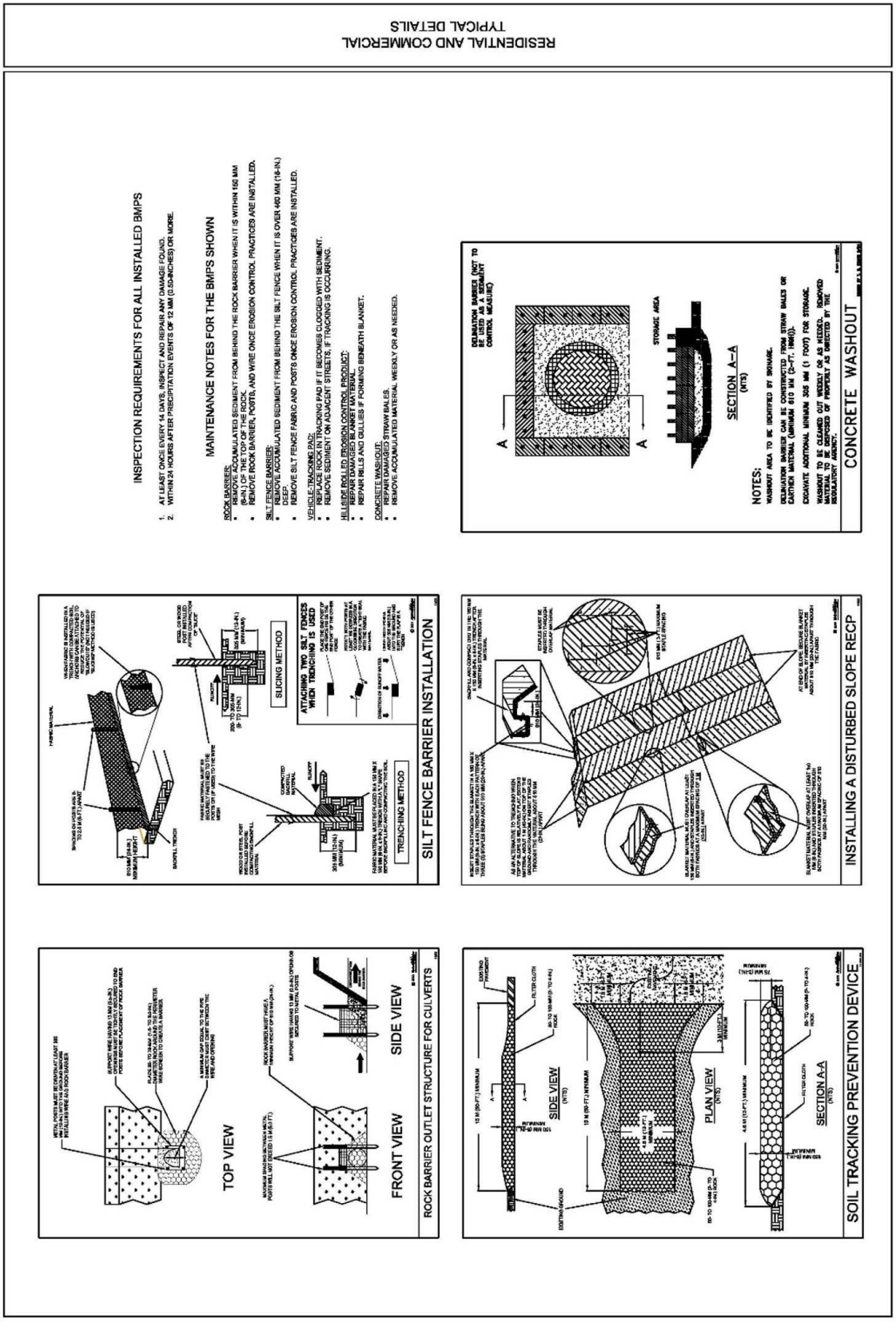

Conducting Construction Site Inspections

INSPECTION REQUIREMENTS FOR ALL INSTALLED BMPS

1. AT LEAST ONCE EVERY 14 DAYS, INSPECT AND REPAIR ANY DAMAGE FOUND.
2. WITHIN 24 HOURS AFTER PRECIPITATION EVENTS OF 12 MM (0.50-INCHES) OR MORE.

MAINTENANCE NOTES FOR THE BMPS SHOWN

ROCK BARRIER:
- REMOVE ACCUMULATED SEDIMENT FROM BEHIND THE ROCK BARRIER WHEN IT IS WITHIN 150 MM (6-IN.) OF THE TOP OF THE ROCK.
- REMOVE ROCK BARRIER, POSTS, AND WIRE ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

SILT FENCE BARRIER:
- REMOVE ACCUMULATED SEDIMENT FROM BEHIND THE SILT FENCE WHEN IT IS OVER 460 MM (18-IN.) DEEP.
- REMOVE SILT FENCE FABRIC AND POSTS ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

VEHICLE-TRACKING PAD:
- REPLACE ROCK IN TRACKING PAD IF IT BECOMES CLOGGED WITH SEDIMENT.
- REMOVE SEDIMENT ON ADJACENT STREETS, IF TRACKING IS OCCURRING.

HILLSIDE ROLLED EROSION CONTROL PRODUCT:
- REPAIR DAMAGED BLANKET MATERIAL.
- REPAIR RILLS AND GULLIES IF FORMING BENEATH BLANKET.

CONCRETE WASHOUT:
- REPAIR DAMAGED STRAW BALES.
- REMOVE ACCUMULATED MATERIAL WEEKLY OR AS NEEDED.

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PERMIT, INSPECTION AND CORRECTIVE ACTION REPORTS

Conducting Construction Site Inspections

The Contractor has decided that neither a permit nor inspections or corrective action reports are necessary

Conducting Construction Site Inspections

CONDUCTING AN INSPECTION FOR SCENARIO NO. 1

Conducting Construction Site Inspections

Erosion and Sediment Control Inspection Report (SAMPLE)

Project: _____

Permit No.: _____

Prime Contractor: _____

Inspector: _____

Inspector Qualifications: _____

Verbal/Written Notification given to: _____

Stage of Construction: _____

Construction Activities on Site: _____

Site Area (ha.): _____

Receiving Water (i.e. creek, lake): _____

Inspection:

Date: _____

Time: _____

Duration (hours): _____

Date of Last Inspection: _____

Reason for Inspection:

Weekly _____

Rainfall Event _____

Snowmelt Event _____

Current Weather Conditions: _____

Previous Weather Conditions for site: _____

Rainfall amount (mm): _____

Rainfall duration (hours): _____

Snowmelt amount (mm): _____

Information	Yes	No	N/A	Inspector's Comments and Action(s)
1. Do (or can) offsite flows enter the site?				
2. Is there evidence of, or the potential for, increased pollutant (e.g., sediment, fuel, concrete waste, portable toilet waste, etc.) discharging from the site?				If yes, see attached detail sheet for comments.
3. Do installation, repair and/or maintenance of sediment control BMPs need to occur?				If yes, see attached detail sheet for comments.
4. Do installation, repair and/or maintenance of erosion control BMPs need to occur?				If yes, see attached detail sheet for comments.
5. Do installation, repair and/or maintenance of in-stream control BMPs need to occur?				If yes, see attached detail sheet for comments.
6. Is there evidence of sediment discharging off the construction site and onto downstream location?				If yes, see attached detail sheet for comments.
7. Are vehicles tracking sediment off the construction site?				If yes, see attached detail sheet for comments.
8. If applicable, is soil, construction material, landscaping items, or other debris evident on the streets?				If yes, see attached detail sheet for comments.
9. Do locations exist where consideration of installing additional BMPs not found in the ESC plan should occur?				If yes, see attached detail sheet for comments.
10. Do location exist where consideration of removing existing BMPs identified and shown in the ESC plan can occur?				If yes, see attached detail sheet for comments.
11. Is a photo inventory provided?				If yes, see attached detail sheet for comments.
12. Does you site evaluation indicate a need to possibly update and document the ESC plan within the next seven (7) days?				If yes, see attached detail sheet for comments.
13. Have all previous inspection items been addressed and documented by the close of the next full work day or within seven (7) calendar days after an inspection?				If yes, see attached detail sheet for comments.

Conducting Construction Site Inspections

LOCATION LA (LOOKING SOUTH)

Project:_____ Date:_____ Page ____ of ____

Inspector:_____

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
5.	

Conducting Construction Site Inspections

LOCATION LB (LOOKING EAST)

Detail Report:	Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.		
2.		
3.		
4.		
5.		
6.		

Conducting Construction Site Inspections

LOCATION LC (LOOKING NORTHEAST)

Detail Report:	Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.		
2.		
3.		
4.		
5.		
6.		

Conducting Construction Site Inspections

LOCATION LD (LOOKING NORTHWEST)

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
5.	
6.	

Conducting Construction Site Inspections

LOCATION LE (LOOKING APPROX. EAST)

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
5.	
6.	

Conducting Construction Site Inspections

DID YOU SIGN THE INSPECTION FORM?

Erosion and Sediment Control Inspection Report (SAMPLE)

Project:_____ Date:_____ Page ____ of ____

Inspector:_____

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
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9.	
10.	
11.	
12.	

_____ Date:_____

(Print Inspector Name) (Signature)

Title/Qualification of the Inspector:_____

MATERIAL FOR SCENARIO NO. 2
ESC Report and ESC Drawings

Conducting Construction Site Inspections

PROJECT CONDITIONS

- **You are a CISEC hired to replace the last person who was fired for not conducting inspections correctly.**
- **This is a routine inspection (not triggered by a rainfall event).**
- **Assume you are contracted to do updates.**
- **It is your understanding the land is represented by the "After Grading and During Construction" drawings.**
- **Vertical construction activities are occurring.**
- **Assume you are inspecting the site on 9/15/yyyy.**

Conducting Construction Site Inspections

STORMWATER TEAM

Permittee: Example Development
12345 First Street
Any Town, Any Province Postal Code
(XXX) 123- 4567

Contact Information: I. M. Aperson
Example Development
12345 First Street
Any Town, Any Province Postal Code
(XXX) 123- 4567

Person Responsible for Plan: Mr. Loman Onthetotempol

Designer: Ms. Meghan Little, CPESC

Subcontractors: S&EC Grading and Contracting ***8/20/20XX***
Johnston Pipe Line Contractors ***BHI***
Acme Painters
Seth Plumbing
AAA General Contractor
JJJ Builders

Project Name: Example Development

Project Location: Southeast of the intersection of South “K” Avenue and West “A” Avenue in Any Town, Any Province, Postal Code.

Receiving Waters: Storm waters discharge into the “Lake” via local tributaries that drain into major drainage channels.

NATURE OF CONSTRUCTION ACTIVITY

This project consists of developing land for a subdivision and commercial area. Construction activities on the site will consist of removing existing vegetation, grading of the land, installing utilities, paving, and development of the land for a subdivision and commercial area. This project will disturb approximately 15.0 hectares (37.1 acres) out of a total of 17.0 hectares (42.1 acres).

SEQUENCE FOR MAJOR ACTIVITIES:

Construction tasks to be completed will include the following sequential activities.

- Removal of existing vegetation,
- Clearing and grubbing of the land,
- Grading,
- Installing utilities,
- Development and paving of roads, and
- Construction of commercial and single-family homes.

SITE MAP:

A map has been included with this ESC report.

Conducting Construction Site Inspections

Site Planning Documentation

Soils on the project have the following characteristics:

Symbol	Type of Soil Material	Percent of Site	Wind Erodibility	Comments
A5b5	Sandy Loam	100%	3	Low to moderate water erosion and wind hazards and moderate to high runoff potential.

Predominate soils of the site are moderately deep and well drained.

Historic vegetation for this area is pasture grass.

Construction Site Pollutants

It will be the responsibility of the heavy equipment contractor to take appropriate actions to ensure pollution of storm water does not occur. Fueling areas will be at least 30 metres (100-ft.) from drainage channels and/or storm sewer systems. The heavy equipment contractor will be responsible for protecting the soil from contamination due to any hydrocarbon or other hazardous spills associated with his contractual obligations.

Contractors will also be responsible for preventing soil contamination where building materials, fertilizers, chemicals, waste piles or other potential hazardous materials may exist.

No dedicated concrete or asphalt batch plants will exist on this site.

Non-Storm Water Components of Discharge

There are no non-storm water components of discharge associated with this project.

Descriptions of Stormwater Control Measures

Reduction of sediment in runoff waters will occur in the following manner (see the S&E Control drawings for more detailed illustrations).

5. Before overlot grading activities begin, the following BMPs will be installed:
    a) Installation of a storm sewer pipe to convey offsite flows away for the project site.
    b) Silt fence barriers as illustrated on the drawings.
    c) Install rock barrier at culvert.
    d) Vehicle tracking pads at major entrances into the site.
6. During initial overlot grading activities, installation of one or more of the following BMPs will occur:
    a) As soon as feasible, complete a rough installation of the detention ponds (with outlet structures) and convert them into sediment containment systems (SCSs).
    b) Install additional silt fence barriers as necessary to minimize discharge of sediment into waterways.
    c) Apply erosion control materials.
7. During major overlot grading activities, one or more of the following tasks will occur:
    a) Install diversion structures to ensure the discharge of runoff into an SCS.

b) Maintain all sediment and erosion control BMPs.
c) Install utilities.
d) Install barriers at inlet.
e) Apply erosion control materials.

8. After grading activities are completed, the following tasks will occur:

a) Paving of roads.
b) Construction of homes.
c) Installation of landscaping material.
d) Maintenance of SCSs until 80% full buildout of development.
e) Maintenance of sediment and erosion control methods.

Sediment and Erosion Control Methods

Sediment control measures will include one or more following techniques with installation of additional methods occurring as deemed necessary by the designer.

- Silt fence and/or diversion barriers
- Barriers in front of "sump" inlets
- Vehicle tracking pads
- Sediment containment systems

Offsite tacking of soil will be minimized by at least weekly removal of accumulated sediment in access streets. More frequent sediment removal will occur when significant buildup is evident.

Erosion control measures will include one or more of the following methods:

- Construction of homes
- Installing landscaping materials
- Placement of pavement
- Applying erosion control materials

Final stabilization of the site will occur by placement of pavement, planting temporary and/or perennial grass seed on disturbed lands, and installing landscape material on the lots and in common areas.

INSPECTION AND MAINTENANCE

Inspections of sediment and erosion control measures will occur after any significant wind or precipitation event that causes runoff. As a minimum, inspection of all sediment and erosion control facilities will occur at least once every 14 days while construction activities occur. ***and after precipitation events of 12 mm (0.50-in.) or more,*** ***8/20/20XX BHI***

Inspections will occur until final stabilization of the site has occurred, which is defined as vegetative cover of at least 70% of historic conditions, completion of 100% of the commercial area, and completion of 100% of the homes sites.

Inspection of sediment and erosion control measures will include at least the following:

- Removal of accumulated material collected by SCSs or barriers once a 50% reduction of the storage capacity for the structures becomes evident,
- Repairing damage to sediment control structures,
- Adding or eliminating sediment and/or erosion control measures as deemed necessary,
- Immediate repair and/or replacement of BMPs when failure occurs or the mitigation measures are ineffective.

Records of each inspection will reside with the contractor, developer, or their representative.

Conducting Construction Site Inspections

TRAINING

Documentation is on file for each operator.

ENDANGERED SPECIES

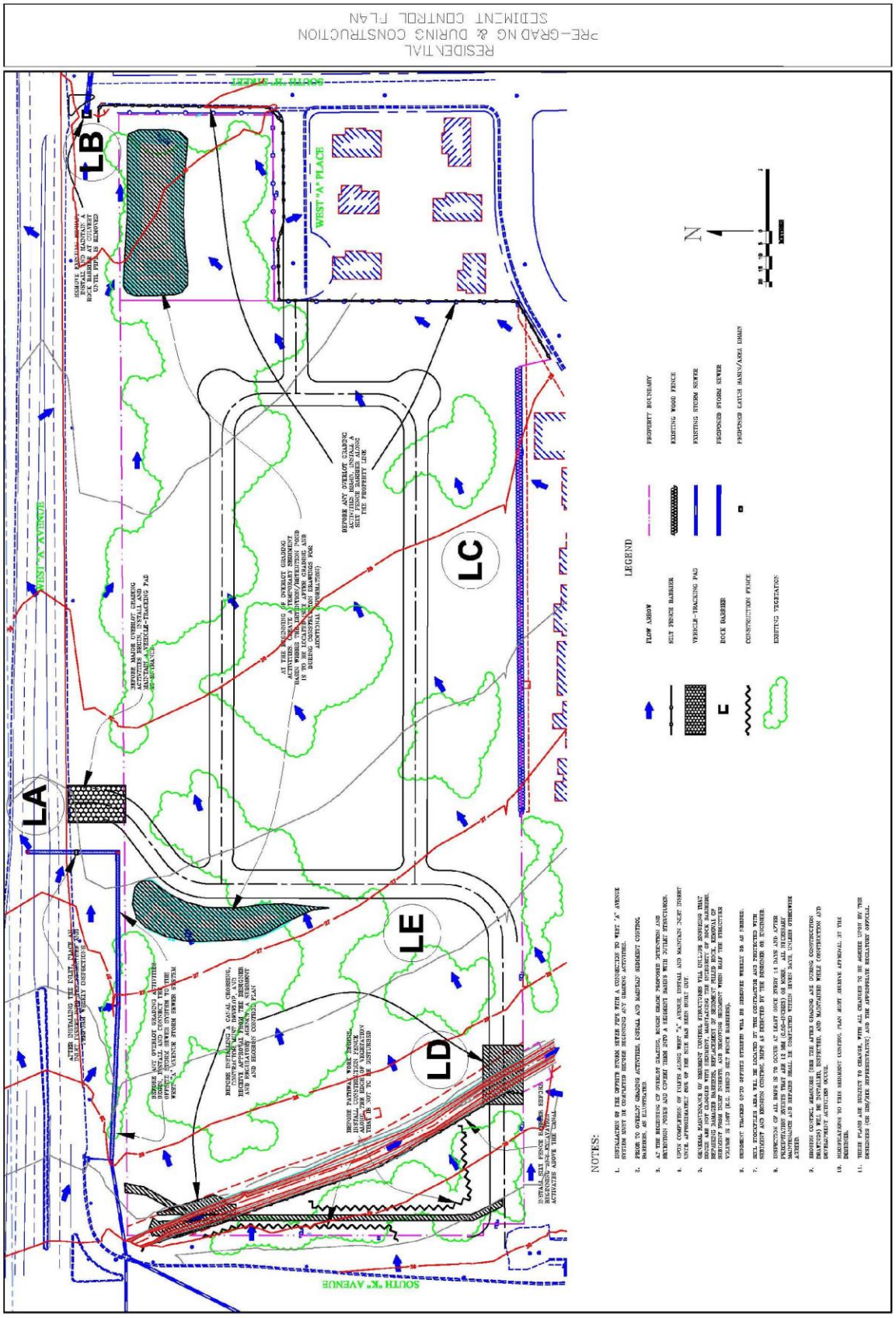
There are no known endangered species on this project site.

HISTORIC PROPERTIES

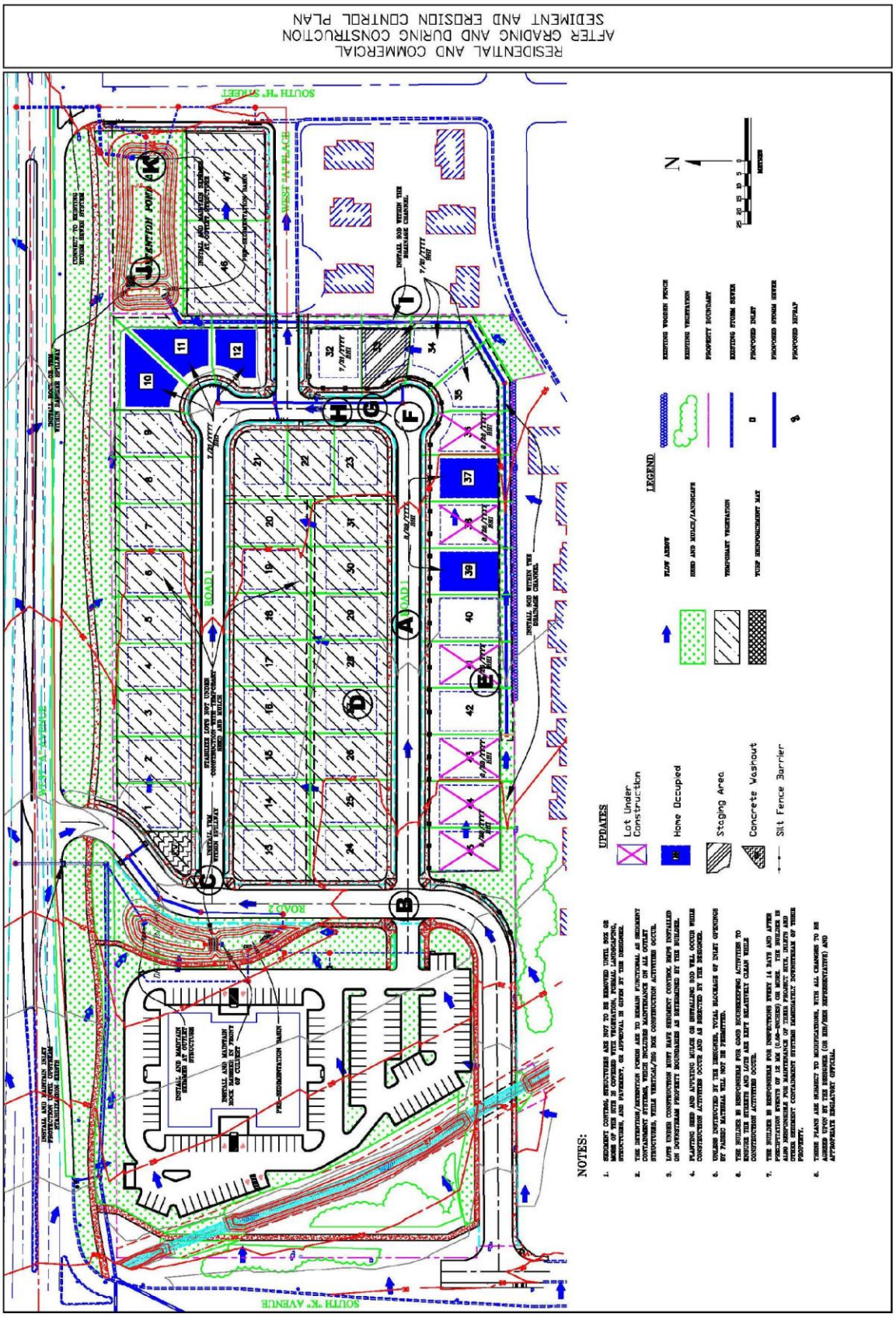
There are no known historic properties on this project site.

SEDIMENT AND EROSION CONTROL DRAWINGS

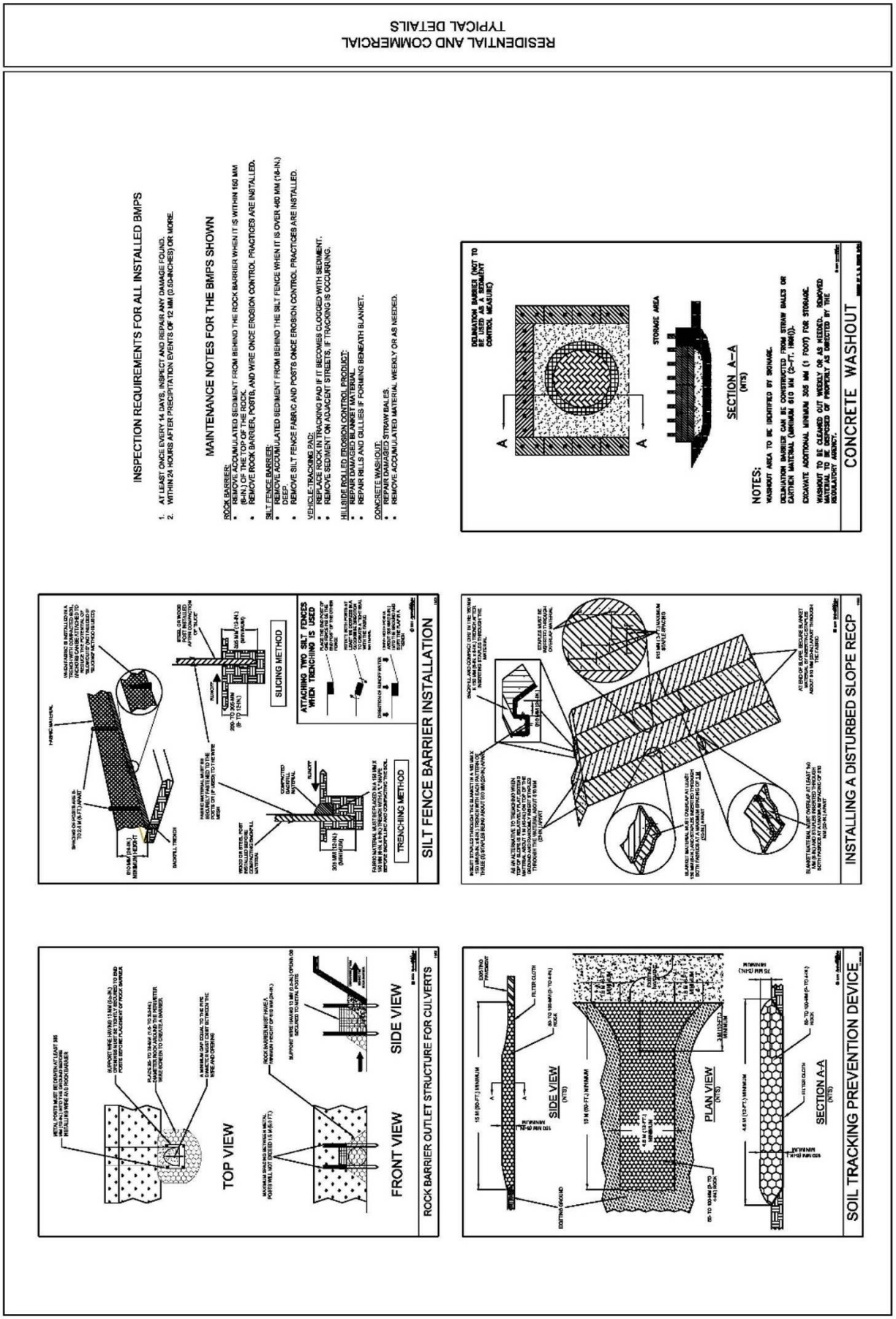
Conducting Construction Site Inspections



Conducting Construction Site Inspections



Conducting Construction Site Inspections



Permit and Inspection Records

Conducting Construction Site Inspections

Assume that the Contractor has obtained the proper permit. See the following pages for inspection reports.

Conducting Construction Site Inspections

Project: Example Development Date: 08/25/yyyy Page ____ of ____

Inspector: _____

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1. Lot 43, 44 & 45: Repair silt fence barrier	
2. Lot 32: Erosion is evident	
3. Commercial Pond: Water is contained by the structure	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	

Date: _____

(Print Inspector Name) (Signature)

Title/Qualification of the Inspector: _____

Conducting Construction Site Inspections

Project: Example Development Date: 08/05/yyyy Page ____ of ____

Inspector: Sam A. Fred

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1. Site is in total compliance and no problems are evident	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	

Date: _____

(Print Inspector Name) (Signature)

Title/Qualification of the Inspector: _____

Conducting Construction Site Inspections

Project: Example Development Date: 07/19/yyyy Page ____ of ____

Inspector: R. J. Crook

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1. Main Detention Pond: Need to install skimmer per plans	07/25/yyy ZWI
2. Lot 32: Port-a-potty needs to be removed from the street	07/25/yyy ZWI
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	

R. J. Crook (Print Inspector Name) (Signature) Date: 07/19/yyyy

Title/Qualification of the Inspector: Certified Inspector

Conducting Construction Site Inspections

Erosion and Sediment Control Inspection Report (SAMPLE)

Project: _____

Permit No.: _____

Prime Contractor: _____

Inspector: _____

Inspector Qualifications: _____

Verbal/Written Notification given to: _____

Stage of Construction: _____

Construction Activities on Site: _____

Site Area (ha.): _____

Receiving Water (i.e. creek, lake): _____

Inspection:

Date: _____

Time: _____

Duration (hours): _____

Date of Last Inspection: _____

Reason for Inspection:

Weekly _____

Rainfall Event _____

Snowmelt Event _____

Current Weather Conditions: _____

Previous Weather Conditions for site: _____

Rainfall amount (mm): _____

Rainfall duration (hours): _____

Snowmelt amount (mm): _____

Information	Yes	No	N/A	Inspector's Comments and Action(s)
1. Do (or can) offsite flows enter the site?				
2. Is there evidence of, or the potential for, increased pollutant (e.g., sediment, fuel, concrete waste, portable toilet waste, etc.) discharging from the site?				If yes, see attached detail sheet for comments.
3. Do installation, repair and/or maintenance of sediment control BMPs need to occur?				If yes, see attached detail sheet for comments.
4. Do installation, repair and/or maintenance of erosion control BMPs need to occur?				If yes, see attached detail sheet for comments.
5. Do installation, repair and/or maintenance of in-stream control BMPs need to occur?				If yes, see attached detail sheet for comments.
6. Is there evidence of sediment discharging off the construction site and onto downstream location?				If yes, see attached detail sheet for comments.
7. Are vehicles tracking sediment off the construction site?				If yes, see attached detail sheet for comments.
8. If applicable, is soil, construction material, landscaping items, or other debris evident on the streets?				If yes, see attached detail sheet for comments.
9. Do locations exist where consideration of installing additional BMPs not found in the ESC plan should occur?				If yes, see attached detail sheet for comments.
10. Do location exist where consideration of removing existing BMPs identified and shown in the ESC plan can occur?				If yes, see attached detail sheet for comments.
11. Is a photo inventory provided?				If yes, see attached detail sheet for comments.
12. Does you site evaluation indicate a need to possibly update and document the ESC plan within the next seven (7) days?				If yes, see attached detail sheet for comments.
13. Have all previous inspection items been addressed and documented by the close of the next full work day or within seven (7) calendar days after an inspection?				If yes, see attached detail sheet for comments.

Conducting Construction Site Inspections

LOCATION A (LOOKING NORTHEAST)

Project:_____ Date:_____ Page ____ of ____

Inspector:_____

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
5.	

Conducting Construction Site Inspections

LOCATION B (LOOKING SOUTHEAST)

Detail Report:	Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.		
2.		
3.		
4.		
5.		
6.		

Conducting Construction Site Inspections

LOCATION C (LOOKING NORTHEAST)

Detail Report:	Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.		
2.		
3.		
4.		
5.		
6.		

Conducting Construction Site Inspections

LOCATION D (LOOKING SOUTHEAST)

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
5.	
6.	

Conducting Construction Site Inspections

LOCATION E (LOOKING EAST)

Detail Report:	Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.		
2.		
3.		
4.		
5.		
6.		

Conducting Construction Site Inspections

LOCATION F (LOOKING SOUTHWEST)

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
5.	
6.	

Conducting Construction Site Inspections

LOCATION G (LOOKING EAST)

Detail Report:	Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.		
2.		
3.		
4.		
5.		
6.		

Conducting Construction Site Inspections

LOCATION H (LOOKING NORTHEAST)

Detail Report:	Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.		
2.		
3.		
4.		
5.		
6.		

Conducting Construction Site Inspections

LOCATION I (LOOKING SOUTHWEST)

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
5.	
6.	

Conducting Construction Site Inspections

LOCATION J (LOOKING SOUTHWEST, STANDING IN THE PRE-SEDIMENTATION BASIN)

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
5.	
6.	

Conducting Construction Site Inspections

LOCATION K (LOOKING NORTH)

Detail Report:	Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.		
2.		
3.		
4.		
5.		
6.		

Conducting Construction Site Inspections

DID YOU SIGN THE INSPECTION FORM?

Erosion and Sediment Control Inspection Report (SAMPLE)

Project:_____ Date:_____ Page ____ of ____

Inspector:_____

Detail Report: Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install.	Date done (with initials)
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	

_____ Date: _____

(Print Inspector Name) (Signature)

Title/Qualification of the Inspector:_____

Appendix

APPENDIX A – FEDERAL LEGISLATION

1. Fisheries Act

Serious harm to fish

35. (1) No person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery.

Exception

(2) A person may carry on a work, undertaking or activity without contravening subsection (1) if

- (*a*) is prescribed or carried on in or around Canadian fisheries waters, and in accordance with the prescribed conditions;
- (*b*) is authorized by the Minister and carried on in accordance with conditions established;
- (*c*) is authorized by a prescribed person or entity and carried on in accordance with the prescribed conditions;
- (*d*) the serious harm is produced as a result of doing anything that is authorized, otherwise permitted or required under this Act; or
- (*e*) is carried on in accordance with the regulations.

Regulations

(3) The Minister may, for the purposes of paragraph (2)(*a*), make regulations prescribing anything that is authorized to be prescribed.

Deposit of deleterious substance prohibited

36. (3) Subject to subsection (4), no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.

Deposits authorized by regulation

(4) No person contravenes subsection (3) by depositing or permitting the deposit in any water or place of

- (*a*) waste or pollutant type, in a quantity and under conditions authorized by regulations made by the Governor in Council under any Act other than this Act;

Appendix

- (*b*) a deleterious substance of a class and under conditions — which may include conditions with respect to quantity or concentration — authorized under regulations made under subsection (5)
- (*c*) a deleterious substance the deposit of which is authorized by regulations made under subsection (5.2) and that is deposited in accordance with those regulations.

Regulations for authorizing certain deposits

(5) The Governor in Council may make regulations prescribing

- (*a*) deleterious substances or classes authorized to be deposited
- (*b*) waters or places where any deleterious substances authorized to be deposited
- (*c*) works or undertakings or conduct of which deleterious substances are authorized to be deposited;
- (*d*) the quantities or concentrations of deleterious substances authorized to be deposited;
- (*e*) the conditions or circumstances subject to which any deleterious substances are authorized to be deposited; and
- (*f*) the persons who may authorize the deposit of any deleterious substances and the conditions or circumstances under which requirements subject to which those persons may grant the authorization.

Regulations — Minister

(5.2) the Minister may make regulations

- (*a*) authorizing the deposit of deleterious substances specified in the regulations, or substances falling within a class of deleterious substances specified in the regulations;
- (*b*) authorizing the deposit of deleterious substances into waters or places falling within a class of waters or places;
- (*c*) authorizing the deposit of deleterious substances resulting from a work, undertaking or activity falling within a class of works, undertakings or activities;
- (*d*) establishing conditions, which may include conditions with respect to quantity or concentration, for the deposit of deleterious substances referred to in paragraphs (*a*) to (*c*); and
- (*e*) establishing, for the purposes of paragraphs (*a*) to (*c*), classes of
  - (i) deleterious substances,
  - (ii) waters and places, and
  - (iii) works, undertakings and activities.

Appendix

Directions by the Minister

(6) A person authorized to deposit a deleterious substance shall, when directed by the Minister, conduct any sampling, analyses, tests, measurements or monitoring, install or operate any equipment or comply with any procedures, and report any information, required by the Minister to determine the deposit is in the manner authorized.

Minister may require plans and specifications

37. (1) If a person carries on or proposes to carry on any work, undertaking or activity or to deposit a deleterious substance, the Minister can require plans, specifications, studies, procedures, schedules, analyses, samples, evaluations and other information to determine

- (*a*) the potential to result in serious harm to fish that constitutes or would constitute an offence and what measures, if any, would prevent that result or mitigate its effects; or
- (*b*) the deposit of a deleterious substance constitutes or would constitute an offence and what measures, if any, would prevent that deposit or mitigate its effects.

Ecologically significant areas

(1.1) a proposal in any ecologically significant area, the Minister may request— in the manner and circumstances prescribed by regulations, any prescribed material and other information relating to the habitat that likely to be affected

Marginal note: Powers of Minister

(2) If, it is of the opinion that an offence is being or is likely to be committed, or likely to result in harm to fish in an ecologically significant area, the Minister or the designated person may, by order,

(*a*) require modifications or additions to the plans, specifications, procedures or schedules considered necessary in the circumstances, or

- (*b*) restrict the carrying on of the work, undertaking or activity.

The Minister or the designated person may also direct the closing of the work or undertaking or the ending of the activity for any period that the Minister or the designated person considers necessary in the circumstances.

Authority to enter

38.(3) An inspector may, for a purpose of compliance, enter any place or premises, other than a private dwelling in which the inspector believes on reasonable grounds that

- (*a*) there is anything that is detrimental to fish habitat; or

Appendix

- (*b*) there has been carried on, is being carried on or is likely to be carried on any work, undertaking or activity resulting or likely to result in
  - (i) serious harm to fish
  - (ii) the deposit of a substance in water frequented by fish

Powers on entry

(3.1) The inspector may, for a purpose related to verifying compliance with this Act, examine any substance or product in the place or premises, take samples of it and conduct tests and measurements.

Duty to notify — serious harm to fish

(4) Every person shall without delay notify an inspector, a fishery officer or an authority prescribed by the regulations of an occurrence that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery, that is not authorized under this Act, or of a serious and imminent danger of such an occurrence, if the person at any material time

- (*a*) owns or has the charge, management or control of the work, undertaking or activity that resulted in the occurrence or the danger of the occurrence; or
- (*b*) causes or contributes to the occurrence or the danger of the occurrence.

Duty to notify — deleterious substance

(5) If there occurs a deposit of a deleterious substance in water frequented by fish that is not authorized under this Act, or if there is a serious and imminent danger of such an occurrence, and detriment to fish habitat or fish or to the use by humans of fish results or may reasonably be expected to result from the occurrence, then every person shall without delay notify an inspector, a fishery officer or an authority prescribed by the regulations if the person at any material time

- (*a*) owns or has the charge, management or control of
  - (i) the deleterious substance, or
  - (ii) the work, undertaking or activity that resulted in the deposit or the danger of the deposit; or
- (*b*) causes or contributes to the occurrence or the danger of the occurrence.

Duty to take corrective measures

(6) Any person shall, as soon as feasible, take all reasonable measures consistent with public safety and with the conservation and protection of fish and fish habitat to prevent the occurrence or to counteract, mitigate or remedy any adverse effects that result from the occurrence or might reasonably be expected to result from it.

Appendix

Report

(7) As soon as feasible after the occurrence or after learning of the danger of the occurrence, the person shall provide an inspector, fishery officer or an authority prescribed by the regulations with a written report on the occurrence or danger of the occurrence.

Corrective measures

(7.1) An inspector or fishery officer, on reasonable grounds that immediate action is necessary in order to take any measures, take any measures at the expense of any person or direct such a person to take them at that person's expense.

Regulations

(9) The Governor in Council may make regulations prescribing

- (*a*) the manner in which the notification is to be made, the information to be contained in the notification and the circumstances in which no notification need be made;
- (*b*) the manner in which the report under that subsection is to be made, the information to be contained in the report and the circumstances in which no report need be made;
- (*c*) the manner in which inspectors and fishery officers may take any measures or give any directions
- (*d*) the manner and circumstances in which any measures taken or directions given under may be reviewed, rescinded or varied; and
- (*e*) any other matters necessary for or incidental to carrying out the purposes and provisions of this section.

Assistance to inspectors

(10) The owner or person in charge of any place or premises entered by an inspector shall give the inspector all reasonable assistance to enable the inspector to carry out their duties and functions and shall provide the inspector with any information with respect to verifying compliance with this Act.

Appendix

Offence and punishment

40. (1) Every person who contravenes subsection 35(1), 36(1) or (3) is guilty of an offence

Indictable Offence

- Individual
  - not less than $15,000 and not more than $1,000,000
  - not less than $30,000 and not more than $2,000,000, or to imprisonment for a term not exceeding three years, or to both, for a subsequent offence
- corporation (person)
  - not less than $500,000 and not more than $6,000,000
  - not less than $1,000,000 and not more than $12,000,000 for a subsequent offence
- small revenue corporation
  - not less than $75,000 and not more than $4,000,000
  - not less than $150,000 and not more than $8,000,000 for a subsequent offence

- **Summary Offence**,
  - individual
    - not less than $5,000 and not more than $300,000
    - not less than $10,000 and not more than $600,000, or to imprisonment for a term not exceeding six months, or to both, for a subsequent offence
  - corporation (person)
    - not less than $100,000 and not more than $4,000,000,
    - not less than $200,000 and not more than $8,000,000, for a subsequent offence
  - small revenue corporation
    - not less than $25,000 and not more than $2,000,000
    - not less than $50,000 and not more than $4,000,000 for a subsequent offence.

Small revenue corporation status

(2.1) a court may determine a corporation to be a small revenue corporation if the court is satisfied that the corporation's gross revenues for the 12 months immediately before the day on which the proceedings arose— were not more than $5,000,000.

Appendix

Relief from minimum fine

(2.2) The court may impose a fine that is less than the minimum amount provided if the minimum fine would cause undue financial hardship.

Other offences

- fail to comply with a prescribed condition of an authorization
- fail to provide material or information requested by the Minister or within a reasonable time after the request is made
- fail to provide or submit any material, information or report that is to be provided or submitted under regulations
- fail to provide notification that is required (serious harm or deleterious substance)
    - carries on any work, undertaking or activity other than in accordance with material or information provided to the Minister
    - other than in accordance with material or information required to be modified by any order of the Minister, or
    - contrary to any order made by the Minister
- fail to take any reasonable measures required to take under or fails to take measures in the required manner
- fail to provide a report that he or she is required to provide
- fails to comply with the whole or any part of a direction of an inspector or a fishery officer
- fail to comply with a request of the Minister made under section 20????

First Offence - not exceeding two hundred thousand dollars

Subsequent Offence - not exceeding two hundred thousand dollars or to imprisonment for a term not exceeding six months, or to both.

Matters of proof

- a “deposit” takes place whether or not any act or omission resulting in the deposit is intentional; and
- no water is “water frequented by fish”, where proof is made that the water is not, has not been and is not likely to be frequented in fact by fish.

Application of fines

(6) All fines received by the Receiver General in respect of the commission of an offence under this section are to be credited to the Environmental Damages Fund and

used for purposes related to the conservation and protection of fish or fish habitat or the restoration of fish habitat, or for administering that Fund.

Recommendations of court

(7) The court imposing the fine may recommend to the Minister that all or a portion of the fine credited to the Environmental Damages Fund be paid to a person or an organization specified by the court for a purpose referred to in subsection (6).

42. (1) Where there occurs a deposit of a deleterious substance in water frequented by fish that is not authorized under section 36 or a serious and imminent danger thereof by reason of any condition, the persons who at any material time

- owns the deleterious substance or have the charge, management or control over, or
- who cause or contribute to the causation of the deposit or danger thereof,

are jointly and severally liable for all costs and expenses incurred by Her Majesty in right of Canada or a province, to the extent that those costs and expenses can be established to have been reasonably incurred in the circumstances, of and incidental to the taking of any measures to prevent any such deposit or condition or to counteract, mitigate or remedy any adverse effects that result or may reasonably be expected to result therefrom.

Recovery

(2) All the costs and expenses are recoverable by Her Majesty in right of Canada or a province with costs in proceedings brought or taken therefor in the name of Her Majesty in any such right in any court of competent jurisdiction.

Liability to fishermen

(3) Where, as a result of a deposit that is not authorized under section 36, a deleterious substance enters water frequented by fish, the persons described in paragraphs (1)(*a*) and (*b*) jointly and severally liable for all loss of income incurred by any licensed commercial fisherman, and costs in proceedings taken in any court of competent jurisdiction.

Due diligence defence

78.6 No person shall be convicted of an offence under this Act if the person establishes that the person

(*a*) exercised all due diligence to prevent the commission of the offence; or

(*b*) reasonably and honestly believed in the existence of facts that, if true, would render the person's conduct innocent

Appendix

Fishery (General) Regulations
To Persons

62. (1) Where an information is laid by a person in circumstances relating to an offence under the Act, the payment of the proceeds of any penalty imposed arising from a conviction for the offence shall be made

- (*a*) one half to the person; and
- (*b*) one half to the Minister or, where all of the expenses incurred in the prosecution of the offence are paid by a provincial government, to that provincial government.

FISHERIES ACT

Definitions:

2. (1) In this Act,

Aboriginal

"Aboriginal", in relation to a fishery, means that fish is harvested by an Aboriginal organization or any of its members for the purpose of using the fish as food, for social or ceremonial purposes or for purposes set out in a land claims agreement entered into with the Aboriginal organization;

Canadian fisheries waters

"Canadian fisheries waters" means all waters in the fishing zones of Canada, all waters in the territorial sea of Canada and all internal waters of Canada;

commercial

"commercial", in relation to a fishery, means that fish is harvested under the authority of a licence for the purpose of sale, trade or barter;

fish

"fish" includes

- (*a*) parts of fish,
- (*b*) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and
- (*c*) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals;

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fishery

"fishery" includes the area, locality, place or station in or on which a pound, seine, net, weir or other fishing appliance is used, set, placed or located, and the area, tract or stretch of water in or from which fish may be taken by the said pound, seine, net, weir or other fishing appliance, and also the pound, seine, net, weir, or other fishing appliance

fish habitat

"fish habitat" means spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes

recreational

"recreational", in relation to a fishery, means that fish is harvested under the authority of a licence for personal use of the fish or for sport;

Serious harm to fish

For the purposes of this Act, serious harm to fish is the death of fish or any permanent alteration to, or destruction of, fish habitat.

"**deleterious substance"** means

- (*a*) any substance that, if added to any water, would degrade or alter the quality of that water so that it is, or is likely to be, deleterious to fish or fish habitat or to the use by man of fish that frequent that water, or
- (*b*) any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or the quality of that water so that it is, or is likely to be, deleterious to fish or fish habitat or to the use by man of fish that frequent that water,

"**water frequented by fish**"

"water frequented by fish" means Canadian fisheries waters.

Appendix

2. Species at Risk Act (SARA)

Overview:

The Species at Risk Act is designed to meet one of Canada's key commitments under the International Convention on Biological Biodiversity. The goal of the Act is to protect endangered or threatened organisms and their habitats. It also manages species which are not yet threatened, but whose existence or habitat is in jeopardy.

SARA defines a method to determine steps that need to be taken in order to help protect existing healthy environments, as well as recover threatened habitats. It defines ways in which governments, organizations and individuals can work together to preserve species at risk.

Key Definitions:

"**Aquatic species**" means a wildlife species that is a fish, as defined in section 2 of the *Fisheries Act*, or a marine plant, as defined in section 47 of that Act.

"**Critical habitat**" means the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species.

"**Federal land**" means

(*a*) land that belongs to Her Majesty in right of Canada, or that Her Majesty in right of Canada has the power to dispose of, and all waters on and airspace above that land;

(*b*) the internal waters of Canada and the territorial sea of Canada; and

(*c*) reserves and any other lands that are set apart for the use and benefit of a band under the *Indian Act*, and all waters on and airspace above those reserves and lands.

"**Endangered species**" means a wildlife species that is facing imminent extirpation or extinction.

"**Extirpated species**" means a wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild.

"**Threatened species**" means a wildlife species that is likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction.

Destruction of critical habitat

58. (1) Subject to this section, no person shall destroy any part of the critical habitat of any listed endangered species or of any listed threatened species — or of any listed

extirpated species if a recovery strategy has recommended the reintroduction of the species into the wild in Canada — if

(*a*) the critical habitat is on federal land, in the exclusive economic zone of Canada or on the continental shelf of Canada;

(*b*) the listed species is an aquatic species; or

(*c*) the listed species is a species of migratory birds protected by the *Migratory Birds Convention Act, 1994*.

Protected areas

(2) If the critical habitat or a portion of the critical habitat is in a national park of Canada named and described in Schedule 1 to the *Canada National Parks Act*, a marine protected area under the *Oceans Act*, a migratory bird sanctuary under the *Migratory Birds Convention Act, 1994* or a national wildlife area under the *Canada Wildlife Act*, the competent Minister must, within 90 days after the recovery strategy or action plan that identified the critical habitat is included in the public registry, publish in the *Canada Gazette* a description of the critical habitat or portion that is in that park, area or sanctuary.

Application

(3) If subsection (2) applies, subsection (1) applies to the critical habitat or the portion of the critical habitat described in the *Canada Gazette* under subsection (2) 90 days after the description is published in the *Canada Gazette*.

Application

(4) If all of the critical habitat or any portion of the critical habitat is not in a place referred to in subsection (2), subsection (1) applies in respect of the critical habitat or portion of the critical habitat, as the case may be, specified in an order made by the competent minister.

Due diligence

100. Due diligence is a defence in a prosecution for an offence.

Appendix

3. Canadian Environmental Protection Act (CEPA) - amendments pending

Overview:

The Canadian Environmental Protection Act is “an Act respecting pollution prevention and the protection of the environment and human health in order to contribute to sustainable development”.

The goal of CEPA is to contribute to contribute to sustainable development through pollution prevention and to protect the environment and human health from the risks associated with toxic substances.

CEPA also recognizes the contribution of pollution prevention and the management and control of toxic substances and hazardous waste to reducing threats to Canada’s ecosystems and biological diversity.

In determining whether a substance should be declared "toxic" under CEPA the likelihood and magnitude of releases into the environment and the harm it may cause to human health or ecosystems at levels occurring in the Canadian environment are taken into account. If a substance is found to be "toxic," the Ministers recommend that the substance be added to the List of Toxic Substances (Schedule 1). The federal government then works with the provinces, territories, industry, non-government organizations and other interested parties to develop a management plan to reduce or eliminate the harmful effects the substance has on the environment and the health of Canadians.

Key Definitions:

“**pollution prevention**” means the use of processes, practices, materials, products, substances or energy that avoid or minimize the creation of pollutants and waste and reduce the overall risk to the environment or human health.

“**sustainable development**” means development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Toxic substances

64. For the purposes of this Part and Part 6, except where the expression “inherently toxic” appears, a substance is toxic if it is entering or may enter the environment in a quantity or concentration or under conditions that

(*a*) have or may have an immediate or long-term harmful effect on the environment or its biological diversity;

(*b*) constitute or may constitute a danger to the environment on which life depends; or

(*c*) constitute or may constitute a danger in Canada to human life or health.

Appendix

Report and remedial measures

95. (1) Where there occurs or is a likelihood of a release into the environment of a substance specified on the List of Toxic Substances in Schedule 1 in contravention of a regulation made under section 92.1 or 93 or an order made under section 94, any person described in subsection (2) shall, as soon as possible in the circumstances,

(*a*) subject to subsection (4) and any regulations made under paragraph 97(*b*), notify an enforcement officer or any other person designated pursuant to the regulations and provide a written report on the matter to the enforcement officer or other person;

(*b*) take all reasonable measures consistent with the protection of the environment and public safety to prevent the release or, if it cannot be prevented, to remedy any dangerous condition or reduce or mitigate any danger to the environment or to human life or health that results from the release of the substance or may reasonably be expected to result if the substance is released; and

(*c*) make a reasonable effort to notify any member of the public who may be adversely affected by the release or likely release.

Application

(2) Subsection (1) applies to any person who

(*a*) owns or has the charge, management or control of a substance immediately before its release or its likely release into the environment; or

(*b*) causes or contributes to the release or increases the likelihood of the release.

Report by property owner

(3) Where there occurs a release of a substance as described in subsection (1), any person, other than a person described in subsection (2), whose property is affected by the release and who knows that it is a substance specified on the List of Toxic Substances in Schedule 1 shall, as soon as possible in the circumstances and subject to subsection (4), report the matter to an enforcement officer or to any person that is designated by regulation.

Defence:

283. No person shall be found guilty of an offence under this Act, other than an offence under section 273 if the offence is committed knowingly or under section 228 or 274, where the person establishes that the person exercised all due diligence to prevent its commission.

Appendix

4. Navigation Protection Act (NPA)

Overview:

The NPA is administered through Transport Canada and is designed to protect the public right of navigation in Canadian waters. At the same time, the Act allows individuals and agencies to proceed with projects that interfere with navigation, provided they obtain approval from the Minister. In this sense, the Act both reinforces the historic common right to navigation for Canadians and creates a legal process for limiting or interfering with this right.

Recent amendments to the Act have been approved with changes aimed at simplifying the process of building and maintaining bridges or other infrastructure, providing greater certainty in planning for works, and reducing time and project costs.

Key Definitions:

"**Navigable water**" includes a canal and any other body of water created or altered as a result of the construction of any work.

"**Work**" includes

(*a*) any man-made structure, device or thing, whether temporary or permanent, that may interfere with navigation; and

(*b*) any dumping of fill in any navigable water, or any excavation of materials from the bed of any navigable water, that may interfere with navigation.

Throwing or depositing sawdust, etc., prohibited

21. No person shall throw or deposit or cause, suffer or permit to be thrown or deposited any sawdust, edgings, slabs, bark or like rubbish of any description whatever that is liable to interfere with navigation in any water, any part of which is navigable or that flows into any navigable water.

Appendix

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