

# ENVIRONMENTAL CHECKLIST



*A pocket guide to working on site*

*Johan Ullberg*



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# ENVIRONMENTAL CHECKLIST

## A POCKET GUIDE TO WORKING ON SITE

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### **ABOUT THIS BOOKLET**

This pocket book gives you some ideas on how to carry out road construction without harming the environment. It provides guidance on dealing with the following issues:

- Waste
- Noise and vibrations
- Dust and exhaust
- Contaminated soil
- Natural environment
- Water

The booklet has been written for roadwork in the Northern Periphery. This booklet is a summary of the report “Environmental guidelines. Results of a Study on environmental practices and regulations”, which provides more details concerning every issue.

For a more extensive work, which also deals with other types of construction, see “Environmental good practice” by CIRIA in England (ISBN 0 86017 502 2). [www.ciria.org.uk](http://www.ciria.org.uk)

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*Road B871 in Scotland, a typical low volume road in the Northern Periphery.*

*Photo Andrew Dawson 2003*

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## WASTE

Waste is defined as “anything that the holder discards, intends to discard or is required to discard”.

Try to minimize waste by:

- Using as much as possible of what you have
- Recycle as much as possible



If it is impossible to avoid creating waste:

- Take care of the waste; do not leave it behind
- Sort your waste. Mixing wastes increases disposal costs
- Do not litter. Someone will have to pick it up

Remember that you can have both inactive and active waste. The latter can be hazardous, both to nature and humans.

It is financially sensible to minimize waste:

- An initially small mistake can become very expensive later. Remember that you are economically responsible for what you do.
- It is expensive to transport materials that you don't use.
- It costs time and money to handle waste.

## NOISE AND VIBRATIONS



*Roller at work in northern  
Sweden*

*Photo J.Ullberg 2002*

Noise is a sound that is undesirable to the listener. Vibration is a fast repeating movement, which can cause damage to buildings, for example.

Try to minimize the impact of noise and vibrations:

- Inform the people in the neighbourhood
- Work at daytime if possible
- Use modern equipment
- Keep engine doors closed

Remember that noise can disturb livestock and people. If there is a large farm or similar noise sensitive industry, talk to the owner.

Vibrations can cause damage to buildings. You may be held economically responsible for any damages you may cause.



*Measuring in the pasture*

*Photo B. Mårtensson 2004*

## **DUST AND EXHAUST**

You can never expect a roadwork site to be free of dust and exhaust gases. Problems can arise when you work in villages and cities. Therefore you should take suitable precautions, especially in dry and windy weather.



*Spreading fly ash at road BD694, Vitåfors, Sweden*

*Photo Thomas Nilsson 2002*



You can avoid problems by:

- Covering dry dusty materials
- Cleaning your site of mud and slurry
- Damping down dusty material
- Using modern equipment, with cleaner engines
- Turning off engines on waiting vehicles, especially near buildings



## **CONTAMINATED SOIL**

You can find polluted soil.

Look for the signs:

- Smell!! Use your nose.
- Waste material in the soil
- Discoloured water



*Polluted water*  
*Photo J.Ullberg 2004*



What to do:

- Call in specialized advice
- Talk to the environmental authorities

Avoid new pollution:

- Take care of your waste
- Check for leakage from your cars and trucks
- Remember that you will have to pay for any new pollution



## **THE NATURAL ENVIRONMENT**

Many animals and plants and their habitat are protected by law. There can be heavy fines for damaging them.

So:

- Protect nature
- Identify protected species and areas before you start work
- If something new pops up, act. Don't just ignore the problem.

## How to do it:

- Inform the workforce, so that everybody on the site knows what to do, and what to protect.
- Protect the object physically. A simple fence can be enough.
- For many animals timing can be crucial. A bird in its nest is much more sensitive than in late summer when “the kids” have left.
- When working in protected environments, such as nature reserves, be extra careful not to work unnecessarily outside the road.
- Common sense is very often enough.

## When you must take extra care:

- National Parks
- Nature Reserves
- Natural monuments
- Protected wetlands
- Natura 2000 areas



*Färnebofjärden National Park*

*Photo J.Ullberg 2004*

## WATER

Clean water is important to all living things. Roadwork is therefore a potential threat. An oil spill can contaminate the water, and if dust spreads to watercourses and lakes it may cause cloudiness.



*Fällforsen, Piteå River  
Photo J.Ullberg 2003*

To avoid problems:

- Remove mud and slurry before it reaches any water
- Be careful with oil and petrol spills

A road affects the flow of water. It acts as a barrier and involves the need to dig ditches along the road and also drainage ditches.



*Protected groundwater  
Photo: Vägverket 2002*

When rehabilitating an old road the ditches are already there.

- Normally there is no problem with fixing road ditches
- Reuse the materials you take away from ditches. Bear in mind that there will very likely be some pollutants in the ditches.



*Photo J. Gustafsson 2002*

- Ditches for draining the water away from the road must sometimes be excavated, but try to minimize the impact of machines on the terrain.
- In areas with protected wetlands, you must be extra careful. There may be restrictions on working outside the road.
- A culvert through the road is necessary now and then. Remember that the culvert should not act as a barrier to wildlife (fish, frogs, ...)

## SUMMARY

It is financially sensible to have a good environmental plan, and follow it. If you don't pollute or litter, you don't have to take care of anything.

It is also a good practice to keep all machines and equipment in good condition. A well-managed machine can be expected to be less noisy, will give less exhaustion and so on.

A good relationship with the people affected by the roadwork is crucial. Notify the persons affected that work is about to start, either by delivering information leaflets through letterboxes and posting notices in public places, or through an information meeting. If people are notified, their acceptance of the disturbance is usually higher.



**In short:**  
**USE COMMON SENSE**



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