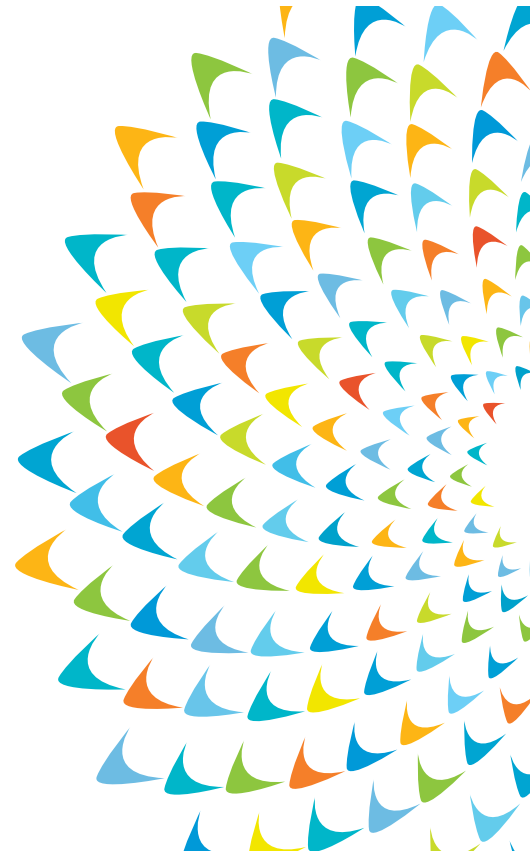


Construction

Pollution  
Control &  
Waste  
Management





# Four Main Strategies

Applicable to all construction environmental impacts:

- **Avoid** – change location / design / technology
- **Minimize** – abatement controls
- **Restore** – re-instate ecosystem
- **Compensate** – restoration offsets



# Water Pollution

Surface and ground water impacted by:

- Hydrocarbons
- Silt, cement
- Sewage
- Polluted groundwater discharge
- Chemicals
- Invasive species



# Water Pollution



# Water Protection





# Soil Impacts

- Contamination
- Erosion
- Landslides, subsidence





# Soil/Ground Contamination





# Soil Protection

- Provide impervious areas
- Assess risks of disturbing contaminated soil







# Soil Erosion

- Exposed soil on a gradient has a high risk of erosion
- Use silt fences and shallow gradient drains





## Other measures for soil protection

To prevent/reduce erosion:

- Minimize the length of slopes;
- Relocate temporary structures;
- Minimize grade and maximize flow resistance of channels;
- Use wide channels, not “v” channels;
- Use armour reinforcements such as gabions and geotech fabric;
- Conserve topsoil and vegetation, or restore vegetation







# Waste Impacts

- General construction and demolition
- Sewage
- Food waste (canteen)
- Metals
- Hazardous waste – asbestos, chemicals, discarded electronics, transformer oil, refrigerants
- Debris and residue from enabling works

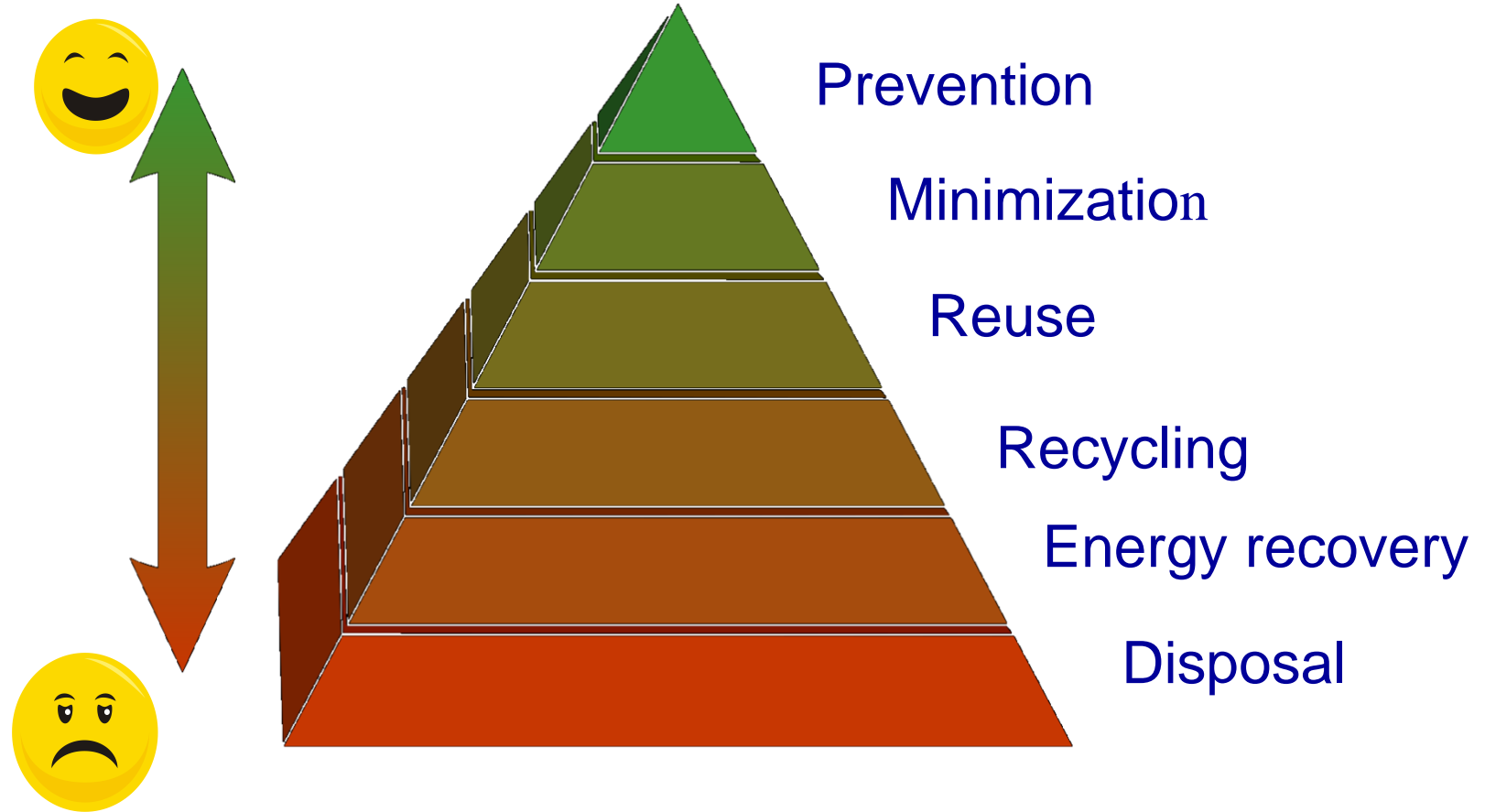


# Waste Management





# Waste Management Planning





# Summary

- Use the four mitigation strategies to limit construction impacts
  - Avoid ➡ Minimise ➡ Restore ➡ Compensate
- Employ internationally recognised good construction practices
  - pollution control – water pollution, soil impacts
  - Waste management planning hierarchy