Institute of Highway Engineers
Winter Services –A Professional Standard for decision makers and managers

IHE Professional Certificate/Diploma in Winter Services Decision Making

This document explains

- How you benefit from an IHE Professional Certificate/Diploma
- How to apply

How you benefit:

The IHE Professional Certificate in Winter Services Decision Making (WSDM) provides:

- Tangible evidence to your employer and future employers of your proven competence in WSDM
- Independence assessment of your knowledge and performance in WSDM which stands up in court
- Access to Engineering Council registration marking you out as a professional
- Ability to use the post nominals RegWSDM(IHE)

For authorities and consultants, the benefits include:

- Tailored comprehensive learning in Winter Services Decision Making
- Tested competence against industry-set standards
- Competitive advantages as an employer of proven competent staff

The Professional Standard is available at Certificate and Diploma levels and is open to all. You do not need to be, or to become, a member of IHE nor do you have to complete a training course or have academic qualifications. You *are* required to prove that you meet the standards of competence.

Candidates who have attended an IHE Winter Services Decision Makers Course and successfully completed the course assessment can apply for the Professional Certificate/Diploma. There is no further application fee.

If you have not completed the training programme

You submit an Experience Report and answer the questions indicated on the assignment There is an assessment fee of £125.00 for IHE members, £175.00 for non-members.

With the IHE Professional Certificate or Diploma, you may also qualify for membership of IHE based on your qualifications and/or experience.

You may also be able to register as an Engineering Technician or Incorporated Engineer. Ask IHE to advise you. Need help?

If you are unsure, please contact the Professional Registrations Department on 020 3874 3066 or email professionalreviews@theihe.org.

How to apply:

Step One

Read the WSDM assignment questions

You are seeking to show the assessors of your knowledge and experience of Winter Services

Step Two

Open a folder and include in it:

- Completed IHE Assignment
- Your CV (make sure it explains your various jobs)
- Copies of your academic certificates (post-school) (For IHE to assess membership eligibility)
- Your job description and organisation chart with your post highlighted

Step Three

The assignments require you to write a description of recent work. Explain what you did and why, by reference to national and local design principles, policy and good practice. Include any photos or layouts which assist your explanation. We want to know what you did and why – use "I" not "we".

Step Four

At the same time put together a few key documents to back up your written explanation.

Put these as Appendices to your Report.

Make two copies of your course assignments.

If you have not attended the IHE course, you will need to submit and cross reference your Experience Report to the 8 assignment Statements. You should also choose sufficient documents produced by you to cover each of the statements. It is helpful to list these in a matrix against the Statements list.

Step Five

- Put at the papers from Step Two with your Experience Report into a folder with a Contents List.
- Ask your line Manager to review and sign off your folder.
- Make 3 copies. Keep the originals and send one copy to IHE by the closing date.

Style guide for written work

In preparing your assignments, portfolio or any report, it is good practice to:

- word process the text using one and a half line spacing on one side of A4
- leave a line between paragraphs
- use headings and subheadings
- number the sections, paragraphs and pages
- number any photos, tables in the text
- number any attachments and prepare a list of the attachments
- get the assignments bound or use a ring binder
- reduce plans if possible or fold them into a plastic wallet
- include photos, sketches or plans to help to explain the site
- justify your reasoning, comments and recommendations by reference to national and local standards or best practice advice
- make clear the extent of your responsibilities

Make sure your submission is easy to handle and to find your way around.

Use good English

- Be precise
- Check your grammar and spelling: ask colleagues to look over the text
- Write short sentences
- Use plain English words

Ask a colleague to proofread the report for technical accuracy.

What happens at IHE?

The IHE will acknowledge receipt of your application, pass on the information you supplied to your assessors.

Afterwards, the assessors make a recommendation to the IHE's Membership & Qualifications Committee.

Afterwards:

The IHE will write to you after the next Membership Committee with your results

The IHE Professional Certificate accredits your competence, marks you out as a qualified professional and is backed by your employers.

PROFESSIONAL CERTIFICATE/DIPLOMA ASSIGNMENT -

Course dates attended:		Candidate Name:
Date submitted:		Organisation:

These tasks are designed to demonstrate a thorough understanding of the role the winter service decision maker and the context within which decisions are taken. They will ground the learning from the course within the organisation for which the individual works. Check your assignment carefully prior to submission using the assessment criteria shown alongside. Wherever possible use your personal experience, but where you consider that this is lacking, demonstrate that you have researched and appropriate response from information within your organisation, or another organisation if appropriate. As a guide your total assignment should be between 2,500 and 3,000 words excluding supporting documentation (diagrams, forecasts etc). Use bulleted lists where appropriate.

By submitting this assignment, I confirm that it is my own work.

Module	*Please use the headings shown below when writing up your assignment*	Assessment Criteria

In addition, choose **two** of the questions 1, 2 and 3 and answer Question 4

Questions 1 ,2 and 3 are worth 20 marks each

For Question 4 - Each criterion is worth 4 marks -60 marks in total

1 **Claims management** Identify a legal claim that has been made against your organisation (or another organisation if you have none!) relating to winter service, ideally one that has been prepared for the court process. Summarise the basis for the allegations, the defence and, if known, the outcome. List the winter documents provided as evidence to defend the case. Assess the learning points from this case and how improvements in record-keeping or operations could have	*An understanding of legal accusations and the basis of the defence is described.* *A list of appropriate winter documentation is clearly identified* *A well-justified assessment of improvements is made.*

improved the defence of this case.	
2 **Winter service delivery** Assess the arrangements that your organisation has made for delivery of winter service and how it complies with the recommendations of Well-managed Highway Infrastructure and the NWSRG guidance.	*An assessment of* - *plant and calibration* - *Salt storage and management* - *Human resources* - *De-icer choice* *should be described with an understanding of how it relates to the NWSRG guidance* .
3 **Decision Making** Describe how you monitor a marginal or changeable forecast throughout the 24-hour period, what planned and unplanned actions could be taken and assess the effectiveness of this approach. Use practical examples	*Demonstrate a thorough understanding of the decision-making process with reference to NWSRG guidance* *Include a summary of the forecast (e.g. text and hazards), how risk and confidence are considered in the forecast, your decision-making rationale for each scenario and a critical assessment of how it could be improved*

Compulsory Assignment Consider your own organisation or Authority and assess the arrangements in place for each of the following 15 criteria. These are reproduced form the NWSRG Guidance documents Section 2 Planning sub section 2.4	Reference to NWSRG guidance
1. How is salt being managed to ensure it is being maintained within its optimum range? • Salt storage • Salt management and moisture content	Section 4: Salt Storage
2. How is the salt spreading equipment being calibrated and maintained to ensure that its spreading characteristics and capability are known and adequate? • Plant capability • Calibration and checking • Maintenance	Section 5: Spreader Management
3. How has the issue of resilience been considered with regard to winter service? • Minimum winter network	Section 2: Planning for Winter Service

• Salt stocks • Contingency for resource shortage – salt, staff, fuel, plant etc	Delivery Section 4: Salt Storage Section 13: Route Selection
4. How has the most appropriate treatment type for your authority been considered? • Dry, pre-wet, treated, liquids • Cost benefit analysis • Invest to save	Section 5: Treatment Methods and Technologies
5. How have the treatment rates been determined and justified? • Considering the 10 factors affecting spread rates • Risk assessment • Treatment matrices	Section 7: Spread Rates
6. How do those involved in the different aspects of winter service demonstrate that they have been adequately trained? • Winter service managers • Decision makers • Drivers and supervisors • Supporting staff (plant maintenance, customer service staff etc)	Section 2: Planning for Winter Service Delivery
7. How is the level of winter service determined and how are the criteria justified? You should consider the following issues: a. Which of the five levels of winter service have you defined: i. Precautionary Salting Network ii. Secondary or community routes iii. Snow response iv. Minimum winter network v. Community self-help b. Criteria for inclusion in each level, definitions of salting network, based on risk and evidence-based approach c. When and how level activated d. Is it approved by elected representatives? e. Equality Impact Assessment	Section 13: Route Selection
8. How do you ensure that you have appropriate information to support the action decision making? • Weather forecast service • Weather stations • Thermal profiling/route-based forecasting • Network data	Section 12: Weather Forecasting and RWIS
9. How do you ensure that the salting network is kept as free from running or standing water as is reasonably practicable?	

• Drainage policies • Managing reports and claims • Signage policy	Section 2: Planning for Winter Service Delivery
10. How do you ensure that information about your winter service is adequately communicated, internally, to stakeholders and to the public? • Robust communication of actions internally • Engaging and informing stakeholders and the public • Pre-planning, operational and post winter • Public perception and feedback	Section 2: Planning for Winter Service Delivery
11. How do you monitor and manage the performance of the winter service? • Winter seasonal statistics • End of winter review • Reviewing claims and collisions • Value for money • Continuous improvement	Section 2: Planning for Winter Service Delivery
12. How do you ensure that adequate records are retained and accessible to defend claims and improve the service? • What records are kept, and are they accurate and relevant records? • Are actions from records followed up? • Are they accessible and for how long are they retained? • Are they audited? • Tracking systems	Section 2: Planning for Winter Service Delivery Section 8: Decision Making
13. How is community self-help arranged and is it effective? • Community self-help schemes (e.g. Snow Wardens, Parish and Town Councils) • Grit bins • Resource availability (e.g. farmers, contractors)	Section 2: Planning for Winter Service Delivery
14. How do you ensure that snow plans can be delivered effectively? • Activation • Resources • Collaboration with other emergency responders • Collaboration with other authorities	Section 9: Treatments for Snow and Ice
15. Contractual arrangements • Are the responsibilities of all parties clear, agreed, communicated and documented	Section 2: Planning for Winter Service

	Delivery
Total marks available = 100. *You must reach 60 marks overall to achieve the Professional Certificate in WSDM* *Marks of 75 or more will allow you to achieve the IHE Professional Diploma in WSDM* *Completed assignments can be submitted at any time and candidate should allow up to eight weeks for their marks*	