



ENVIRONMENTAL IMPACT STATEMENT

**SUBMITTED WITH WASTE LICENCE
W0260-01**



KINGFISHER
ENVIRONMENTAL CONSULTANTS

For:
**EXISTING INERT SOIL AND STONE
RECOVERY FACILITY AND INERT
C&D MATERIALS RECYCLING
FACILITY AT THE QUARRY
GRANNAGH, KILMACOW,
CO. KILKENNY.**

Applicant:



CHI Environmental Ltd.
Dunbrinn,
Grannagh,
Kilmacow,
Co. Kilkenny.

Submitted to:
Environmental Protection Agency
PO Box 3000
Johnstown Castle Estate
Wexford.

EIS Prepared By:
Mr. Freddie P.R. Symmons
B.Env. Sc. (Hons) M.C.I.E.E.M
Senior Environmental Consultant

**KINGFISHER ENVIRONMENTAL
CONSULTANTS**

4 Siverhill, Ballisodare,
Co. Sligo.

TEL: +353 87 2641979

Email: freddiesymmons@hotmail.com

WEB: wastepermitireland.com

Date: **August 2014**

ENVIRONMENTAL IMPACT STATEMENT

SUBMITTED WITH WASTE LICENCE W0260-01

**For: AN EXISTING INERT MATERIALS RECOVERY FACILITY AT
THE QUARRY, GRANNAGH, KILMACOW, CO. KILKENNY**



KINGFISHER
ENVIRONMENTAL CONSULTANTS



*For inspection purposes only.
Consent of copyright owner required for any other use.*



ENVIRONMENTAL IMPACT STATEMENT

TABLE OF CONTENTS

	PAGE
SECTION 1 – INTRODUCTION	
1. Introduction	1-1
1.1 Preamble	1-1
1.2 Planning Permission	1-1
1.3 The EU Waste Framework Directive (2008/98/EC)	1-3
1.3.1 Application of the Waste Hierarchy to the Grannagh Facility	1-4
1.4 Environmental Impact Statement Legislation	1-5
1.5 Structure and Content of the Environmental Impact Statement	1-6
1.6 The Applicant	1-7
1.7 Existing Waste Authorisation	1-7
1.8 Site Selection and Alternatives	1-12
1.9 Data Necessary to Identify and Assess Environmental Effects of Development	1-12
1.10 Difficulties Compiling Specified Information	1-13
1.11 Forecasting Methods Used to Assess the Effects on the Environment	1-13
1.12 Contributors to the EIS	1-13
1.13 Consultations	1-13
1.14 Appropriate Assessment Screening	1-14
1.14.1 Background to Appropriate Assessment	1-14
1.14.2 Findings of Appropriate Assessment Screening	1-15
SECTION 2 – DESCRIPTION OF THE PROPOSED DEVELOPMENT	
2. Description of the Proposed Development	2-1
2.1 Site Location	2-1
2.2 Land Ownership and Site Area	2-4
2.3 General Site Description and Surrounding land Use	2-4
2.4 Site Infrastructure	2-7
2.4.1 Facility Notice Board	2-9
2.4.2 Site Security Arrangements, Including Gates and Fencing and CCTV	2-10
2.4.3 Site Roads	2-10
2.4.4 Hardstanding Areas	2-11
2.4.5 Site Office and Accommodation	2-11
2.4.6 Other Services	2-11
2.4.7 Sewerage Infrastructure	2-12
2.4.8 Surface Water Drainage	2-12
2.4.9 Wheel wash	2-12
2.4.10 Weighbridge	2-13
2.4.11 Laboratory Facilities	2-13
2.4.12 Refuelling of Machinery	2-13



	PAGE
2.4.13 Plant Sheds, Garages and Equipment Compound	2-13
2.4.14 Traffic Control	2-14
2.4.15 Waste Inspection and Quarantine Areas	2-15
2.4.16 Fire Control System, Including Water Supply	2-16
2.4.17 Any Other Waste Recovery Infrastructure	2-16
2.5 Facility Operation	2-16
2.6 Plant	2-19
2.7 Waste Authorisation	2-22
2.7.1 Existing Waste Authorisation	2-22
2.7.2 Proposed Waste Authorisation under a Waste Licence	2-23
2.8 Waste Types	2-24
2.9 Waste Quantities to be Recovered	2-24
2.10 Waste Acceptance Procedures	2-25
2.10.1 Existing Waste Acceptance under the Waste Permit	2-25
2.10.2 Proposed Additional Waste Acceptance under the Waste Licence	2-26
2.11 Soil Recovery Method in Restoration of the Quarry	2-28
2.12 Hours of Operation	2-30
2.13 Waste Arising	2-30
2.14 Raw Materials, Substances, Preparations and Energy	2-30
2.15 Energy Efficiency	2-32
2.16 Technical Competence and Site Management	2-32
2.17 Accident Prevention and Emergency Response	2-33
2.18 Environmental Nuisances	2-35
2.18.1 Bird Control	2-35
2.18.2 Dust Control	2-35
2.18.3 Fire Control	2-36
2.18.4 Litter Control	2-36
2.18.5 Traffic Control	2-36
2.18.6 Vermin Control	2-37
2.18.7 Road Cleansing	2-37
2.19 Environmental Performance	2-37
2.20 Restoration and Aftercare	2-37

SECTION 3 – THE EXISTING ENVIRONMENT, ENVIRONMENTAL IMPACTS, AND MITIGATION MEASURES

3.1 SUMMARY OF SCOPING OF EMISSIONS AND POTENTIAL ENVIRONMENTAL IMPACTS

3.1.1 Introduction	3.1-1
3.1.2 Sources of Information for Scoping	3.1-1
3.1.3 Summary of Scoping	3.1-2
3.1.4 Emissions and Potential Impacts from the Recovery Activity	3.1-2



	PAGE
3.2 FLORA AND FAUNA	
3.2.1 Introduction	3.2-1
3.2.2 Existing Environment	3.2-2
3.2.2.1 Appropriate Assessment Screening	3.2-3
3.2.2.1.1 Findings of Appropriate Assessment Screening	3.2-4
3.2.2.1.1.1 Natura 2000 Sites	3.2-4
3.2.2.1.1.2 Conservation Objectives	3.2-4
3.2.2.1.1.3 Potential Impacts	3.2-6
3.2.2.1.1.4 Conclusions of AA Screening	3.2-6
3.2.2.2 Flora and Fauna and Habitat Survey of Grannagh Facility	3.2-7
3.2.2.2.1 Introduction & Methodology	3.2-7
3.2.2.2.2 Habitats and Flora	3.2-7
3.2.2.2.3 Fauna	3.2-10
3.2.2.2.4 Evaluation of Conservation Value	3.2-11
3.2.3 Potential Environmental Impacts	3.2-11
3.2.4 Mitigation Measures	3.2-13
3.3 WATER	
3.3.1 Introduction	3.3-1
3.3.2 Existing Environment	3.3-1
3.3.3 Potential Impacts	3.3-3
3.3.4 Mitigation Measures	3.3-5
3.3.5 Conclusions	3.3-7
3.4 CLIMATE, AIR QUALITY AND DUST	
3.4.1 Introduction	3.4-1
3.4.2 Existing Environment	3.4-1
3.4.3 Climatic Factors	3.4-5
3.4.3.1 Wind	3.4-5
3.4.3.2 Precipitation	3.4-7
3.4.3.3 Temperature	3.4-8
3.4.3.4 Past Air Quality Studies	3.4-8
3.4.4 Dust Monitoring Results	3.4-9
3.4.4.1 Scope of Dust Survey	3.4-9
3.4.4.2 Survey Approach	3.4-9
3.4.4.3 Dust Survey Results	3.4-9
3.4.4.4 Environmental Assessment of Dust Monitoring	3.4-10
3.4.5 Other Air Emissions	3.4-10
3.4.6 Assessment of Impacts	3.4-10
3.4.6.1 Potential Impacts from Dust on Air Quality	3.4-10
3.4.6.2 Potential Impacts upon Climate	3.4-10
3.4.7 Dust and Air Quality Mitigation Measures	3.4-11
3.4.8 Monitoring	3.4-12

For inspection purposes only.
Consent of copyright owner required for any other use.



	PAGE
3.5 NOISE	
3.5.1 Introduction	3.5-1
3.5.2 Existing Environment	3.5-1
3.5.2.1 Wind	3.5-4
3.5.3 Potential Impacts from Noise	3.5-5
3.5.4 Noise Impact Assessment Report	3.5-6
3.5.5 Mitigation Measures	3.5-15
3.6 HYDROGEOLOGY – GEOLOGY, GROUNDWATER AND SOILS	
3.6.1 Introduction	3.6-1
3.6.2 Existing Environment	3.6-1
3.6.2.1 Introduction	3.6-1
3.6.2.2 Bedrock	3.6-2
3.6.2.3 Bedrock Aquifer Classification and Groundwater Vulnerability	3.6-2
3.6.2.4 Soils	3.6-4
3.6.3 Groundwater Monitoring	3.6-8
3.6.4 Potential Impacts	3.6-10
3.6.5 Mitigation Measures	3.6-11
3.6.6 Conclusions	3.6-14
3.7 CULTURAL HERITAGE	
3.7.1 Introduction	3.7-1
3.7.2 Existing Environment	3.7-2
3.7.2.1 Sites and Monuments Records – Archaeological Interest	3.7-3
3.7.2.2 Geological Heritage	3.7-7
3.7.2.3 Built Heritage	3.7-8
3.7.2.4 Cultural Heritage	3.7-8
3.7.3 Assessment of Potential Impacts	3.7-9
3.7.4 Mitigation Measures	3.7-9
3.8 HUMAN BEINGS AND MATERIAL ASSETS	
3.8.1 Introduction	3.8-1
3.8.2 Existing Environment	3.8-1
3.8.2.1 Existing Site Activities	3.8-1
3.8.2.2 Surrounding Land Use	3.8-2
3.8.2.3 Local Housing Settlement Pattern	3.8-4
3.8.2.4 Demography	3.8-5
3.8.2.5 Employment	3.8-7
3.8.2.5.1 Local Employment	3.8-7
3.8.2.5.2 Employment at the Grannagh Facility	3.8-7
3.8.2.6 Site Office and Staff Accommodation	3.8-8
3.8.2.7 Traffic and Roads	3.8-8



	PAGE
3.8.3 Assessment of Potential Impacts	3.8-10
3.8.4 Mitigation Measures	3.8-11
3.9 LANDSCAPE AND VISUAL ASSESSMENT	
3.9.1 Introduction	3.9-1
3.9.2 Existing Environment	3.9-2
3.9.2.1 Existing Landscape	3.9-2
3.9.2.2 Historical Development of the Grannagh Quarry within the Landscape	3.9-4
3.9.2.3 Planning Status of the Grannagh Quarry Site and Landscape Protection	3.9-7
3.9.2.4 Visual Impact Survey and Assessment of the Visual Impact of the Grannagh Facility upon the Landscape	3.9-8
3.9.2.5 Phasing, Decommissioning, Restoration and Aftercare	3.9-14
3.9.4 Assessment of Impacts Upon Landscape	3.9-15
3.9.5 Mitigation Measures	3.9-15
3.10 INTERACTION OF THE FOREGOING	
3.10.1 General	3.10-1
SECTION 4 – NON-TECHNICAL SUMMARY	
4.1 Introduction	4-3
4.2 Summary of Site Activities	4-5
4.2.1 Principal Elements	4-5
4.2.2 Site Infrastructure and Operations	4-10
4.2.3 Emissions and Potential Impacts from the Recovery Activity	4-13
4.2.4 Environmental Monitoring	4-13
4.3 Flora and Fauna	4-14
4.4 Surface Water	4-16
4.5 Climate, Air Quality and Dust	4-17
4.6 Noise	4-20
4.7 Hydrogeology – Geology, Groundwater and Soils	4-21
4.8 Cultural Heritage	4-24
4.9 Human Beings and Material Assets	4-25
4.10 Landscape and Visual Assessment	4-27
4.11 Interaction of the Foregoing	4-30