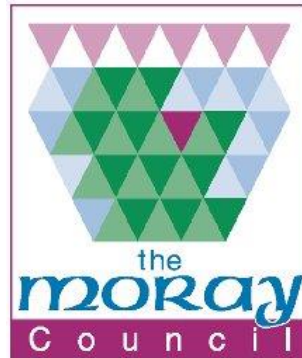


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APPENDIX 1



**THE MORAY COUNCIL FLOOD ALLEVIATION
SUB-COMMITTEE**

MONITORING REPORT No 26

PERIOD COVERED – March to End of April 2015

Elgin Flood Alleviation Scheme (Elgin FAS)

**Dave Gowans
Project Director
The Moray Council
Council Offices
Elgin IV30 7BX**

Introduction

The purpose of the Monitoring Report for the Elgin FAS is to inform the Sub-Committee of the progress of the Scheme covering the administration and management of the Works including:-

- Financial;
- Programme;
- Council Risk;
- Early Warnings; and,
- Performance Measurement

The Works commenced on site in February 2011 with advanced works (tree felling) with the main Works starting 4 April 2011.

Completion of the Flood Alleviation Works is 18 December 2014.

Completion Date for the Works is 6 May 2015.

1. **FINANCIAL**

1.1 **Graphical representation of actual cost incurred against planned**

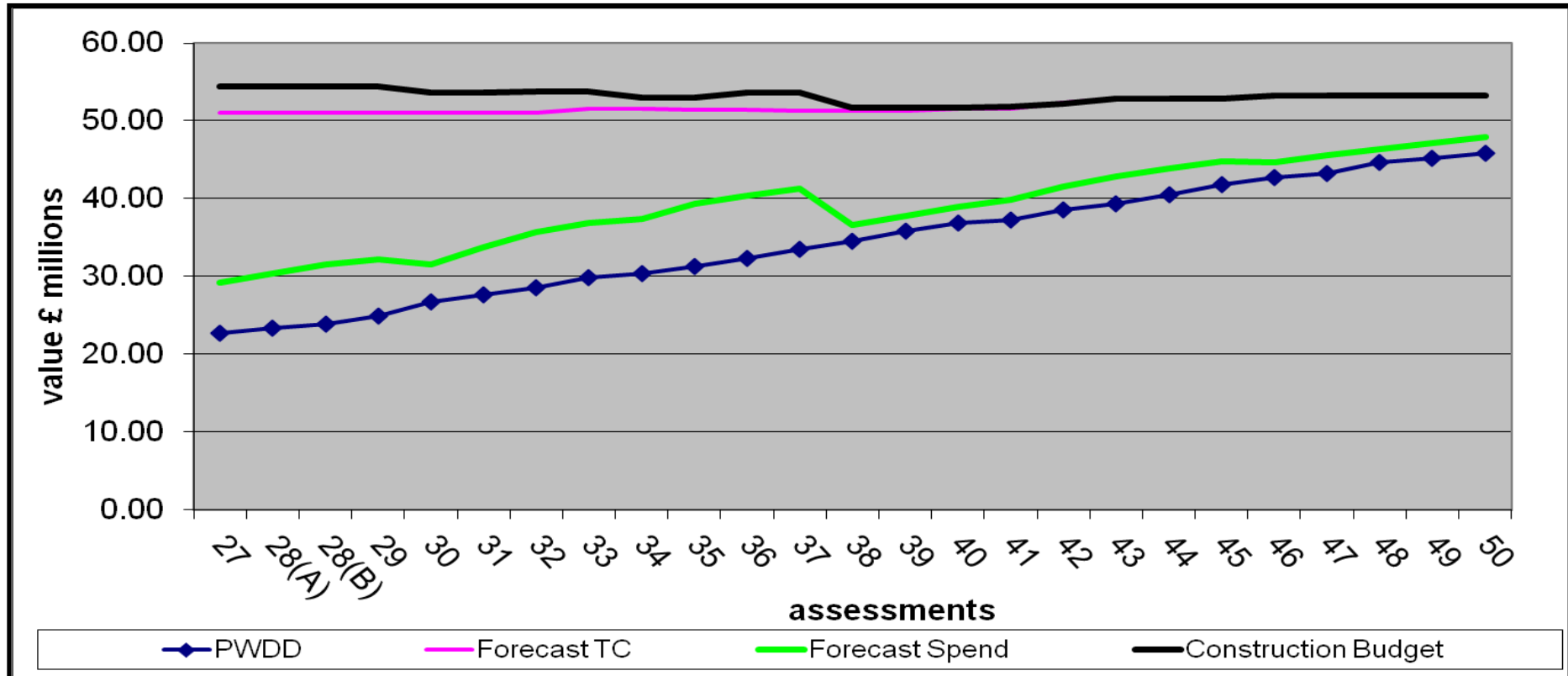


Table 1 – two-year cash flow graph. The above graph shows the Price of Work Done to Date (PWDD), the Forecast Target Cost the Forecast Spend and the Construction Budget.

Applications for Payment No 49 & 508 for March and April 2015 were received and processed for payment and valued at £538,564.05 & £610,094.39 (excluding Value Added Tax).

1.2 Budget Spend

Pre-construction Stage	£ millions	Construction Stage	£ millions
Approved Construction Budget	54.391	Approved Construction Budget	54.391
Audited Target Works Cost	48.585	Audited Target Works Cost	48.585
		Compensation Events	4.724
		Forecast Pain/Gain share	-2.898
		Forecast Revised Target Works Cost	50.411
Council Risk	5.806	Revised Council Risk	0.355
Approved Construction Budget	54.391	Forecast Construction Cost	50.766

Note – these figures will be revised when the final pain/gain calculation is made after the end of the maintenance period (May 2016). The review of the risk register is an on-going process.

Changes to compensation events since Monitoring Report No. 25

During March and April 2015, Compensations Events raised related to the following areas:-

Kingsmills additional armour
 Deanshaugh & Oldmills Property Surveys
 Recycling Centre Palisade Fencing
 Marywell – Riverdale Wall
 Tree Felling
 Boroughbriggs Fencing

2 PROGRAMME

The Contractor issued his first Programme for Acceptance on the Start Date (4 April 2011). Revised Programmes for Acceptance were issued in accordance with the Conditions of Contract and accepted by the Project Manager.

The current Revised Programme (Rev 46) stated that the project was 16 weeks behind programme.

The corrected delay after deduction of the time risk remaining in the programme was 13 weeks.

Work done during March and April 2015:

Old Mills / Marywell

- Tied in 225mm twin culvert
- Installed additional road drainage
- Placed embankment fill at tie in ends
- Placed liner in embankment
- Placed topsoil in embankment
- Tested lade headwall control structure
- Laid edging and sub base to cycle track
- Installed additional drainage to ditch and road gullies

Riverdale Wall

- Relocated chicken run
- Prepared lay down area and access in Riverdale
- Erected scaffolding to walls

Mansion House Hotel

- No work done

Borough Briggs

- Installed railings etc to Morriston Bridge
- Re-laid drop kerbs and reinstated

North Street / Bridge Street / Lossie Wynd

- Installed pipe hanger brackets to North Street Bridge
- Installed pipes and lagging under North Street Bridge
- Re-laid kerbs at Tanker Bay
- Laid sub-base to Tanker Bay
- Laid Grasscrete to Tanker Bay
- Installed ducts to Kiosk
- Concreted kiosk base.
- Installed BT and SSE ducts to Kiosk
- Constructed CSO cover slab
- Carried out drop test at CSO chamber.
- Installed penstock to CSO.
- Installed steel covers to Pump Station chambers
- Completed pipework to Valve Chamber and Pump Chamber.

APPENDIX 1

- Built stonework at bridge parapet walls
- Made BT connections to Lossie Wynd Bridge
- Completed gas diversion
- Completed electricity diversion
- Tidied up and reinstated garden at Decora Wall.

Cooper Park

- No work done

Deanshaugh Mills

- Scrub removed for sewer line diversion

Deanshaugh Playing Fields

- Received concrete from Catchment
- Crushed material ready for filling
- Spread and grade stockpiles
- Hauled fill material from Catchment
- Felled trees
- Re-graded filled pitch area

Brewery Bridge

- No work done

Kingsmills / Flood Relief Channel

- Installed drop kerbs and reinstated at Drama Club
- Constructed capping beam to sheet pile wall
- Painted sheet piles
- Prepared for removal of temporary sheet piles
- Removed access to piling area at Johnstons
- Installed concrete base to retaining wall closure at Kingsmills Court
- Constructed access and hard standing at Kingsmills Court area
- Constructed re-aligned garden wall

Landshut Bridge

- Continued monitoring bridge movements

Johnstons / Lesmurdie

- Removed compound at Lesmurdie
- Completed chain link fence at west end

Grampian Road / Moycroft

- Carried out drop tests to manholes
- Complete tie in at Manholes
- Conducted penstock leakage test
- Completed Scottish Water (SW) Training on new siphon
- Completed commissioning of siphon
- Placed sub base at Scottish Water compound and access road
- Placed fill between Recycling Centre and flood wall
- Progressed SW snagging works
- Completed manholes tie in at Johnston's car park
- Excavated material from Catchment and hauled to Deanshaugh
- Planted trees in areas of Grampian Road
- Erected marker posts

Chanonry

- No work done

Barmuckity / Tyock

- Upfilled with material from Grampian Road flood plain
- Moved topsoil stockpiles at west end of Barmuckity to allow construction of drainage

Utilities

- Site audits with Scottish Water

Work Forecast for May & June 2015

Mansion House

- No work planned

Old Mills / Marywell

- Erect timber fencing at headwall

Riverdale Wall

- Take down and rebuild masonry wall

Borough Briggs

- Erect Fences

North Street / Bridge Street / Lossie Wynd

- Connect sewer to new bridge
- Air test Scottish Water pipes
- Complete stone work at parapets to new bridge
- Fit corner rails to new bridge

- Commence SWW12 sewer diversion
- Place cover slab to Combined Sewer Overflow (CSO)
- Install pumps and screens and commission
- Install kerbing at pump station
- Reinstate batter at motor museum
- Install fibreglass shield below North Street Bridge
- Lay Grasscrete at Tanker Bay
- Lay surfacing at junction

Cooper Park

- Planting and seeding
- Commence transporting fill and placing on viewing bund (weather dependent)

Deanshaugh Mills

- Relay 300mm sewer
- Complete planting and seeding

Deanshaugh Playing Fields

- Commence 300mm Sewer SWD11
- Commence 225mm sewer SWD31
- Commence pitch drainage

Brewery Bridge

- No work planned

Kingsmills / Flood Relief Channel

- Complete reinstatement of Johnstons Car Park

Landshut Bridge

- Continue monitoring of bridge

Johnstons / Lesmurdie

- Commence planting
- Landscaping and parking
- Form access scaffold to pipe (over lade)

Grampian Road / Moycroft

- Switch on pumps and system
- Monitor system
- Carry out joint repair at Magflow
- Hand over Moycroft PS to Scottish Water
- Remove high level sewer
- Remove upstream pipe bridge

- Excavate flood plain at high level sewer
- Erect palisade fencing at Scottish Water Yard
- Erect palisade fencing at Recycle Centre
- Plant trees
- Remedial works to 600mm twin sewer
- Construct cross over at 600mm sewer

Catchment

- Construct asbestos/contaminated cell

Chanonry

- Commence 450mm water main

Barmuckity / Tyock

- Install land drainage
- Place topsoil over drainage

River Lossie Cycle Track

- Value Engineering Workshop
- Issue Project Manager's Instruction
- Commence work on Design of bridges and construction of cycle track

Programme Issues

The Critical Path was affected by:

- Service diversions awaiting construction details and work in the former gas works at Lossie Wynd and North Street;
- The flood event on 11 August 2014;
- The discovery of asbestos in one of the stockpiles at Deanshaugh; and,
- Asbestos discovered at Landshut Bridge.
- The discovery of asbestos in one of the stockpiles at Deanshaugh;
- Agreement on access with the NHS at Marywell to repair the high wall.
- A hot spot of contamination and asbestos fibres was found when lowering the flood plain at the Catchment site. This will need a containment cell, which is being designed.

Efforts to mitigate the slippage of 13 weeks would continue. However, the new impacts on the Critical Path mean that Programme A46 would have an impact on the Contractor's Completion Date. The original Completion Date of 6 May 2015 can no longer be met.

The additional work for construction of River Lossie Cycle Track will take place between June and October 2015.

Health and Safety

Hours worked recorded on site in the Contractor's Progress Report to 30 April 2015 was 1,009,681.

Safety Audits carried out

27 March 2015 – A score of 100% was achieved with no significant findings.

29 April 2015 – A score of 100% was achieved with no significant findings.

Safety Incidents

None

See also Performance Measurement in section 5.

Environmental Impact

The flood relief channel opened without any issues. SEPA and the Fisheries Trust have not expressed any concerns with the work undertaken. A number of additional trees have required felling. These have all been inspected for bat roost activity and more recently for signs of nesting birds. No signs of these species were identified. Discussions were held with Moray Council relating removing Old Bishopmill Bridge (the red bridge) from the Listed Structures Register. This matter has to be pursued by Moray Council with Historic Scotland.

During this period, a number of site visits were undertaken with key objectives in mind. No specific inspection reports were prepared but any issues were discussed with the site agents. No major issues were noted. The overall assessment for this period was 85% compliance with environmental issues. The main reason for this score was the failure to remove unwanted species from areas of flood plain lowering.

Stakeholder Engagement

There were no Stakeholder events during this period so no Performance Measurement is recorded in section 5 below.

APPENDIX 1**3 COUNCIL RISK REGISTER**

- 3.1 A tabulated statement providing details of the Council's risk register. This register is reviewed by the Consultancy Manager, Project Manager, Contractor and Cost Manager. The Current Value noted below has been revised to reflect Compensation Events agreed to date.
- 3.2 The May 2015 review is shown below in the column "Revised Allowance Remaining".

Risk	Risk Description	Allowance	Revised Allowance Remaining
	CLIENT'S RISKS		
1.00	STATUTORY CONSENTS / APPROVALS		
1.01	Delay in award for 6 months	0	0
1.02	Conditions in FPO approval	0	0
1.03	Landfill tax levy	0	0
1.04	Aggregate tax levy	0	0
1.05	Compliance with Planning Conditions (contaminated land & delay)	420000	50000
2.00	LANDOWNER / TENANTS		
2.01	Delays in gaining access to land	200000	0
2.02	Scope of accomm works not yet defined (Onerous)	53750	80000
2.03	Disturbance mitigation from residents / landowners	48000	0
2.04	Ditto from Johnstons	75000	10000
3.00	THIRD PARTY RISKS		
3.01	CAR Licence conditions	120000	0
3.02	TMC traffic constraints	45000	10000
3.03	Deanshaugh playing field - conditions unknown	61875	0
3.04	SEPA /SNH - issues	183750	0
3.05	SEPA Contaminated soils to go to special landfill	0	0
3.06	Disposal of invasive species (landowner requirements)	142500	0
3.07	Damage to properties or other (additional surveys)	45000	0
4.00	SERVICES/UTILITIES		
4.01	Unforeseen scope/conditions (SW, Diageo, Catchment)	110000	20000
4.02	Ditto , ditto other utilities	281250	0
4.03	Unforeseen services - finding and dealing with them	112500	0
4.04	Unforeseen scope/conditions (SW Pumping Station)	281250	0
4.05	Unforeseen scope/conditions MCon Costs (SW diversions)	281250	10000
4.06	Unforeseen scope/conditions MCon Costs(Street Lighting) (MC attendance & protection slabs)	10000	5000
4.07	Unforeseen scope/conditions MCon Costs (Scottish Gas) (MC attendance & protection slabs)	13750	0

APPENDIX 1

Risk	Risk Description	Allowance	Revised Allowance Remaining
4.08	Unforeseen scope/conditions MCon Costs (BT) (MC attendance & protection slabs)	13750	0
4.09	Unforeseen scope/conditions MCon Costs (SSE) (MC attendance & protection slabs)	13750	0
4.10	Utility exceptional risk	60000	0
5.00	DESIGN DEVELOPMENT		
5.01	Additional design costs	412500	0
5.02	Contaminated land	0	0
5.03 a	Unforeseen ground conditions - general	140625	0
5.03 b	Unforeseen ground conditions - asbestos	140625	30000
5.04	Undefined scope change	997500	60000
5.05	Shortage of topsoil Delete	0	0
6.00	FLOOD EVENTS		
6.01	Delay to programme due to flood events > 1 in 10 year	350000	0
7.00	OTHER		
7.01	Steel (VOP exceeding inflation)	122500	0
7.01a	Steel (VOP exceeding inflation) taken from contractor's risk register		0
7.02	Fuel (VOP exceeding inflation)	170000	0
7.02a	Fuel (VOP exceeding inflation) taken from contractor's risk register		0
7.03	Unforeseen risks	621643.8	50000
7.04	Damage to roads	30000	30000
7.05	Directional Drilling - delays due to obstructions etc	107812	0
7.06	Demolition: Underground Tanks at Grampian Road	10000	0
7.07	Demolition: Asbestos in buildings	30000	0
7.08	Demolition: Buildings Scope greater than at TC stage	50000	0
7.09	Demolition: Pansport Bridge Scope greater than at TC stage	50625	0
		5806205.8	355000

4 EARLY WARNING AND UNFORESEEN ITEMS

- 4.1 The Early Warnings process was on-going and the impact of each Early Warning on the Completion Date monitored. This process would continue throughout the scheme duration.
- 4.2 Fuel and steel costs continued to be monitored for their effect on Client Risk and their impact on actual cost. Fuel and steel cost risk has now been closed out.

5 PERFORMANCE MEASUREMENT

5.1 The results of continuous performance measures will be detailed under the following headings, which remain unchanged from previous Schemes:

- Cost, Programme, Health & Safety, Environmental Impact and Stakeholder Satisfaction

Performance Measurement	Monitoring Report ref	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Cost; Cost of Work Actually Performed v Planned	Actual v Planned >10% accurate	Red	Red	Red	Yellow	Green	Yellow	Yellow	Red	Red	Red	Red	Red	Yellow	Green	Green	Green	Green	Green
	Actual v Planned +/- 10% accurate	Red	Red	Red	Yellow	Green	Yellow	Yellow	Red	Red	Red	Red	Red	Yellow	Green	Green	Green	Green	Green
	Actual v Planned +/- 5% accurate	Red	Red	Red	Yellow	Green	Yellow	Yellow	Red	Red	Red	Red	Red	Yellow	Green	Green	Green	Green	Green
Cost; Reliability of Target Cost Setting	Target Cost >10% accurate	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Target Cost +/- 10% accurate	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Target Cost +/- 5% accurate	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Programme duration	Behind Programme > 2 Weeks	Red	Red	Yellow	Yellow	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	Behind Programme 2 Weeks	Red	Red	Yellow	Yellow	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
	On Programme or earlier finish	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Reliability of Target Programme Setting	Target Programme >10% accurate	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Target Programme +/- 10% accurate	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Target Programme +/- 5% accurate	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Health & Safety; Reportable Accidents	More than 1 reportable accident	Green	Yellow	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green
	1 reportable accident	Green	Yellow	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green
	No reportable accidents	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Environmental Impact; Compliance With	Unsatisfactory (<75%)	Grey	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Yellow	Yellow
	Improvement Required (75 – 90%)	Grey	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Yellow	Yellow
	Satisfied (90 – 100%)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Stakeholder Satisfaction	Very unsatisfactory (<75%)	Green	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Grey	Grey	Grey
	Unsatisfactory (75 – 90%)	Green	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Grey	Grey	Grey
	Satisfied (90 – 100%)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

Note – the Stakeholder Satisfaction Performance Measurement will be included following a Stakeholder Event

Progress Programme								
Activity	Original Accepted Programme				Programme Revision 46			
	Start Date	Finish Date	Duration (Weeks)	Completion Percentage	Start Date	Finish Date	Duration (Weeks)	Completion Percentage
Whole of the Works	10-Jan-11	06-May-15	207.6	100%	10-Jan-11	27-Aug-15	224.2	93%
Time risk	12-Mar-15	06-May-15	8.0	0%	06-Aug-15	27-Aug-15	3.0	0%
Kirkhill Embankment	23-Jan-12	08-May-12	14.2	100%	25-Jan-12	10-Oct-12	36.2	100%
Pitaveny Embankment	31-Oct-11	03-Sep-12	39.8	100%	16-Nov-11	23-Nov-12	49.4	100%
Barmuckity	27-Jun-11	01-Mar-15	175.4	100%	13-Jul-11	03-Jun-15	186.3	93%
Tyock	11-May-11	02-Mar-15	182.4	100%	22-Aug-11	08-Jun-15	181.6	99%
Chanonry Right Hand Bank	24-May-11	02-Mar-15	180.4	100%	06-Jun-11	27-Jul-15	200.4	89%
Chanonry Left Hand Bank	31-Jan-12	01-Oct-12	34.0	100%	16-Apr-12	10-Oct-13	73.8	100%
Lesmurdie	04-Apr-11	23-Mar-12	46.8	100%	11-Apr-11	08-Dec-14	178.6	100%
Johnstons Embankment	21-Feb-11	02-Mar-15	166.6	100%	04-Apr-11	19-Jan-15	154.2	100%
Grampian Road	07-Feb-11	02-Mar-15	195.0	100%	07-Feb-11	25-Jun-15	217.2	92%
Landshut (Pansport) Bridge	14-Feb-11	29-May-14	159.0	100%	06-Jun-11	30-Sep-14	161.0	100%
Brewery Channel Bridge	17-Jan-13	11-Nov-14	89.2	100%	26-Feb-13	30-Sep-14	79.0	100%
Kingsmills	17-Feb-11	02-Mar-15	193.6	100%	04-Apr-11	21-Apr-15	195.6	96%

Progress Programme								
Activity	Original Accepted Programme				Programme Revision 46			
	Start Date	Finish Date	Duration (Weeks)	Completion Percentage	Start Date	Finish Date	Duration (Weeks)	Completion Percentage
Deanshaugh Mills	31-Jan-12	21-May-14	111.4	100%	13-Aug-12	29-Jul-14	94.2	100%
Decora	07-Nov-11	10-Sep-14	136.0	100%	16-Jan-14	16-Jul-15	72.8	86%
Cooper Park	04-Apr-11	03-Sep-14	166.2	100%	30-Jan-12	22-Apr-15	134.1	99%
Lossie Wynd Bridge	26-Nov-12	24-Sep-14	87.4	100%	08-Sep-13	03-Aug-15	91.5	89%
Borough Briggs	17-Jun-11	16-Sep-13	109.2	100%	11-Jun-12	12-Mar-15	116.6	99%
Mansion House	09-Jun-11	09-Oct-14	161.8	100%	03-Oct-11	16-Aug-13	89.8	100%
Marywell	13-Jan-13	24-Oct-14	85.4	100%	30-Jan-13	01-Jun-15	92.0	95%
Old Mills	04-Feb-13	18-Sep-13	31.8	100%	30-Jan-13	24-Apr-15	95.6	88%
Glen Moray Distillery	01-Dec-12	16-Oct-14	55.0	100%	10-Jan-13	30-Aug-13	32.0	100%
Deanshaugh Playing Fields	30-Jan-12	02-Mar-15	148.0	100%	21-Mar-12	06-Aug-15	164.2	84%
Clear Site & Demobilise	05-Jan-15	11-Mar-15	8.0	100%	12-Jun-15	06-Aug-15	8.0	0%