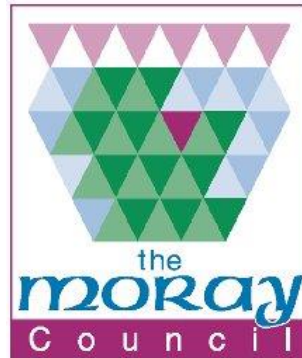


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APPENDIX 1



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

MONITORING REPORT No 24

PERIOD COVERED – November to End of December 2014

Elgin Flood Alleviation Scheme (Elgin FAS)

**Dave Gowans
Project Director
Council Offices
Elgin IV30 0BX**

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**

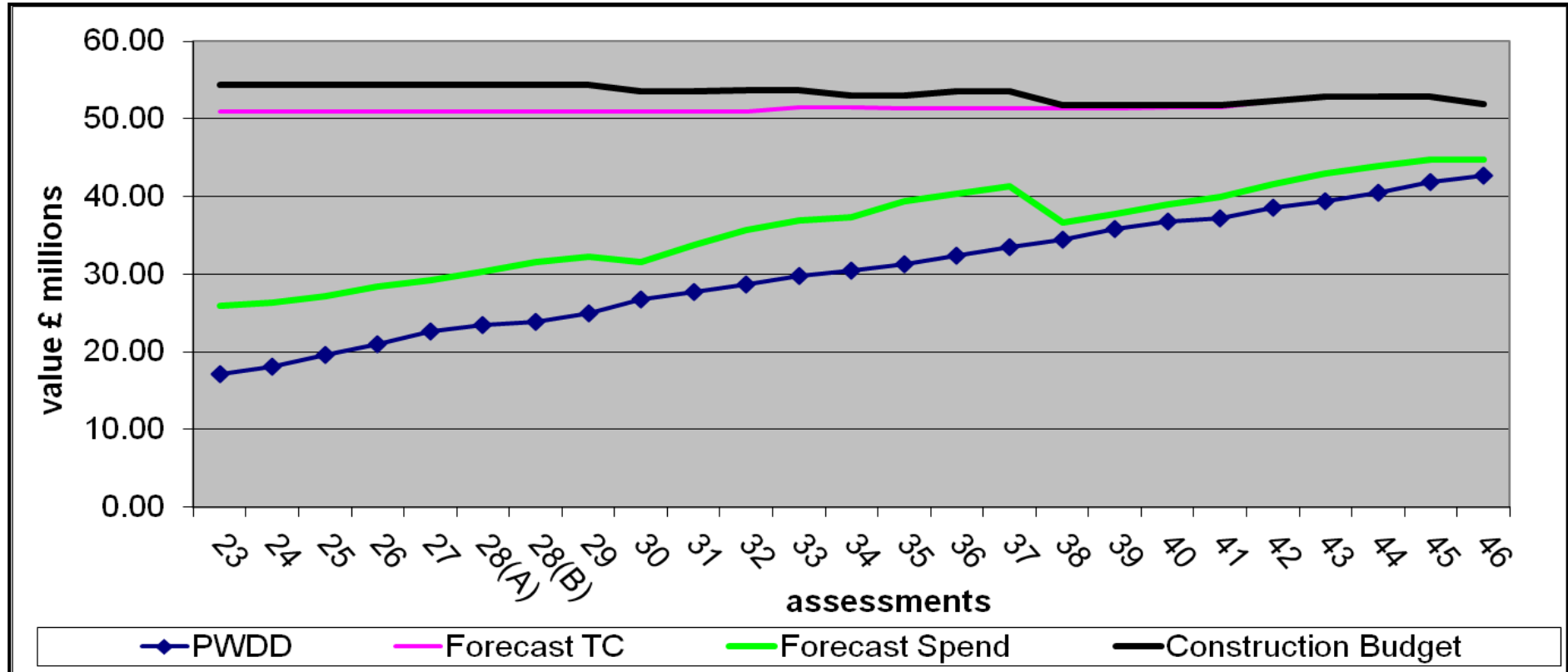


Table 1 – two-year cash flow graph. The above graph shows the Price of Work Done to Date (PWDD), the Forecast Target Cost the Forecast Spend and the Construction Budget.

Applications for Payment No 45 & 46 for November & December 2014 were received and processed for payment and valued at £1,332,736.25 & £848,831.58 (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 | -2.222 |
| | | Forecast Revised Target Works Cost | 51.087 |
| | | | |
| Council Risk | 5.806 | Revised Council Risk | 0.784 |
| | | | |
| Approved Construction Budget | 54.391 | Forecast Construction Cost | 51.871 |

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. 23

During November and December 2014, Compensations Events raised related to the following areas:-

Boroughbriggs bank repairs
 Lossie Wynd Bridge changes
 Landshut Bridge Revetment
 Landshut Bridge Cairn
 Moycroft Pumping Station & Recycling centre water supply

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 45) was under consideration for acceptance and stated that the project was 16 weeks behind programme.

The corrected delay after deduction of the time risk remaining in the programme was 12 weeks.

Work done during November & December 2014:

Old Mills / Marywell

- Continued with embankment construction
- Trimmed side slopes and placed liner
- Progressed infilling lade
- Constructed new access road at proposed culvert to road

Mansion House Hotel

- Works completed

Borough Briggs

- Excavated and trimmed side slopes and topsoil
- Continued footpath and cycle path on top of embankment
- Completed rock revetment
- Completed copes to wall
- Progressed riverbank protection
- Completed reinstatement of Rock Armour area

North Street / Bridge Street / Lossie Wynd

- Built up abutments to bearing shelf level at Lossie Wynd bridge
- Constructed N and S bearing shelves
- Prepared crane pads
- Erected Lossie Wynd Bridge deck
- Reinstated footpath
- Constructed benching to wet well
- Drop tested wet well
- Continued with building chambers at Pump Station
- Benched and finished to M/H chambers
- Progressed outfall pipework
- Continued construction of Decora Wall
- Placed topsoil to rear of Decora Wall
- Continued reinstatement to Decora

Cooper Park

- Continued construction of embankment at Pond
- Surfaced temporary footpath
- Formed access ramp and footpath
- Installed street lighting
- Surfaced centre embankment road

Deanshaugh Mills

- Installed additional manhole ring to 300mm dia sewer

Deanshaugh Playing Fields

- Continued preparing cells for remediation
- Moved asbestos material from stockpiles to cells
- Imported asbestos material from Pansport

Brewery Bridge

- Completed wall at Cathedral Court
- Completed Broxap hand rails
- Surfaced cycle path

Kingsmills / Flood Relief Channel

- Installed Aco drain at parking bays
- Infilled wall panels at play park
- Constructed car park area
- Excavated asbestos and contaminated material and exported to Deanshaugh
- Prepared for capping beam for sheet piles
- Laid blinding to capping beam
- Excavated channel
- Excavated weir formation
- Install rock armour

Landshut Bridge

- Completed installation of lighting
- Removed temporary piles from channel
- Surfaced footpath at Rose Garden
- Surfaced foot paths from Brewery Bridge to Pansport

Johnstons / Lesmurdie

- No work done

Grampian Road / Moycroft

- Installed P4 Cycleway Parapet to top of Grampian Road Wall
- Excavated material from flood plain in Catchment
- Topsoiled flood plain
- Installed liner to embankment in Catchment
- Excavated hot spot and stored material east of Baillie's

Chanonry

- No work done

Barmuckity / Tyock

- Upfill with material from Grampian Road flood plain

Utilities

- Site audits with Scottish Water
- Installed spindles and bricked up manhole covers at SWD 19 - Lesmurdie
- Carried out remedial works replacing penstock bolts at siphon
- Completed third connection at 300mm water main and installed thrust blocks
- Awaited results of tests of water samples for 300mm main
- Air tested pipe runs
- Benched M/H 4
- Installed cover slab for drop shaft
- Progressed SWA snagging works
- Continued Pump Station works/commissioning and tie ins

Work Forecast for January & February 2015

Mansion House

- Structural monitoring

Old Mills / Marywell

- Complete embankment construction
- Complete footpath to proposed new cycle path bridge
- Construct culvert
- Reconstruct section of wall at Riverdale

Borough Briggs

- Complete cycle path and topsoiling
- Complete rock revetment
- Complete riverbank protection
- Complete access for disabled anglers

North Street / Bridge Street / Lossie Wynd

- Complete chambers at Pump Station
- Commence connecting utilities to new bridge
- Commence SWW12 diversion
- CCTV pipe work

Cooper Park

- Complete path on embankment at Pond
- Commence transporting fill and placing on Amphitheatre

Deanshaugh Playing Fields

- Complete cells for asbestos contaminated material
- Resume filling operations for playing fields
- Commence diversion of 300mm Sewer SWD11

Brewery Bridge

- No work planned

Kingsmills / Flood Relief Channel

- Relief channel works below Landshut Bridge
- Construction of weir in flood relief channel
- Construction of capping beam to sheet piled wall
- Install rock armour
- Construct car park area

Landshut Bridge

- Complete stone pitching to north apron
- Continue monitoring of bridge

Johnstons / Lesmurdie

- Commence planting
- Stone cladding to infill panel of Lesmurdie Wall
- Remove compound at Lesmurdie
- Road repairs in front of Lesmurdie garages
- Regulating course and sub-base to east end of Lesmurdie footpath

Grampian Road / Moycroft

- Construct footpath from top of embankment to fishing point downstream of Pansport Bridge
- Install water supply to Pump Station
- Continue Pump Station works/commissioning
- Disconnect 355mm temporary diversion
- Demolish existing pipe bridge
- Scottish Water remedial works
- Construct embankment from catchment to rear of recycling centre
- Remedial works to 600mm twin sewer
- Construct cross over at 600mm sewer
- Continue with contaminated land works at Old North railway embankment, and construct footpath

Catchment

- Continue phase 2&3 embankment removal and haul to Cooper Park
- Remediate and manage contaminated land

Chanonry

- Commence 450mm water main

Barmuckity / Tyock

- Monitor Tyock burn flows
- Commence screening topsoil for Deanshaugh
- Upfill at Barmuckity RHB from project phase 2&3 embankments

Utilities

- Continue final works to chambers on siphon pipeline and commission
- Complete Moycroft pump chamber & commence fencing
- Final live dates for BT and power connections to both Pump Stations

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.

Efforts to mitigate the slippage of 12.5 weeks would continue to meet the Completion Date of 6 May 2015.

Health and Safety

Hours worked recorded on site in the Contractor's Progress Report to 30 November 2014 was 925,243.

Safety Audits carried out

21 November 2014 – A score of 93% was achieved.

1. A substandard score was recorded for vehicle marshalling where operatives were not certified but training courses were already booked.; and,
2. A near miss was recorded for a ladder that was not tied off at Lossie Wynd chamber.

Safety Incidents

None

See also Performance Measurement in section 5.

Environmental Impact

Site visits were undertaken with SEPA and the Fisheries Trust to look at the areas where works within the river and on the banks are required to be undertaken during the spawning season. Methodologies were agreed for each element of these works. Detailed construction methodologies, including environmental mitigation were being drafted and would be submitted to SEPA and the Fisheries Trust for approval before the works start.

During the period, 13 inspections were undertaken and reports prepared. No major issues were noted. The overall assessment for this period was 92% compliance with environmental issues. The main reason for this score was the poor condition of the grass and other vegetation planted and 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.

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 January 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 |

APPENDIX 1

Flood Alleviation Sub-Committee

Monitoring Report No. 24 for Elgin FAS

| Risk | Risk Description | Allowance | Revised Allowance Remaining |
|--------|--|-----------|-----------------------------|
| 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 | 9000 |
| 2.04 | Ditto from Johnstons | 75000 | 20000 |
| 3.00 | THIRD PARTY RISKS | | |
| 3.01 | CAR Licence conditions | 120000 | 5000 |
| 3.02 | TMC traffic constraints | 45000 | 15000 |
| 3.03 | Deanshaugh playing field - conditions unknown | 61875 | 20000 |
| 3.04 | SEPA /SNH - issues | 183750 | 0 |
| 3.05 | SEPA Contaminated soils to go to special landfill | 0 | 50000 |
| 3.06 | Disposal of invasive species (landowner requirements) | 142500 | 0 |
| 3.07 | Damage to properties or other (additional surveys) | 45000 | 30000 |
| 4.00 | SERVICES/UTILITIES | | |
| 4.01 | Unforeseen scope/conditions (SW, Diageo, Catchment) | 110000 | 50000 |
| 4.02 | Ditto , ditto other utilities | 281250 | 30000 |
| 4.03 | Unforeseen services - finding and dealing with them | 112500 | 10000 |
| 4.04 | Unforeseen scope/conditions (SW Pumping Station) | 281250 | 20000 |
| 4.05 | Unforeseen scope/conditions MCon Costs (SW diversions) | 281250 | 25000 |
| 4.06 | Unforeseen scope/conditions MCon Costs(Street Lighting) (MC attendance & protection slabs) | 10000 | 10000 |
| 4.07 | Unforeseen scope/conditions MCon Costs (Scottish Gas) (MC attendance & protection slabs) | 13750 | 0 |
| 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 | 15000 |
| 5.03 b | Unforeseen ground conditions - asbestos | 140625 | 50000 |
| 5.04 | Undefined scope change | 997500 | 100000 |
| 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 | 75000 |
| 7.00 | OTHER | | |

APPENDIX 1

| Risk | Risk Description | Allowance | Revised Allowance Remaining |
|-------|---|-----------|-----------------------------|
| 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 | 20000 |
| 7.02a | Fuel (VOP exceeding inflation) taken from contractor's risk register | | 0 |
| 7.03 | Unforeseen risks | 621643.8 | 70000 |
| 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 | 784000 |

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 costs have risen since the beginning of the Works, the effect of which was under review.

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 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|--|-----------------------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------|--------|-------|-------|-------|--------|--------|-------|-------|
| Cost; Cost of Work Actually Performed v Planned | Actual v Planned >10% accurate | Red | Red | Red | Red | Red | Yellow | Green | Yellow | Yellow | Red | Red | Red | Red | Red | Yellow | Green | Green | Green |
| | Actual v Planned +/- 10% accurate | Red | Red | Red | Red | Red | Yellow | Green | Yellow | Yellow | Red | Red | Red | Red | Red | Yellow | Green | Green | Green |
| | Actual v Planned +/- 5% accurate | Red | Red | Red | Red | Red | Yellow | Green | Yellow | Yellow | Red | Red | Red | Red | Red | Yellow | 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 | Red | Red | Yellow | Yellow | Green | Green | Green | Red | Red | Red | Red | Red | Red | Red | Red | Red |
| | Behind Programme 2 Weeks | Red | Red | Red | Red | Yellow | Yellow | Green | Green | Green | 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 | Green | Green | Yellow | Green | Green | Green | Green | Green | Green | Yellow | Green | Green | Green | Green | Green | Green | Green |
| | 1 reportable accident | Green | Green | Green | Yellow | Green | Green | Green | Green | Green | Green | Yellow | 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 | Grey | Grey | Yellow | Yellow | Yellow | Yellow | Yellow | Green | Green | Green | Green | Green | Green | Green | Yellow | Green | Green |
| | Improvement Required (75 – 90%) | Grey | Grey | Grey | Yellow | Yellow | Yellow | Yellow | Yellow | Green | Green | Green | Green | Green | Green | Green | Yellow | Green | Green |
| | 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%) | Grey | Grey | Green | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Green | Grey | Grey | Grey | Grey | Grey |
| | Unsatisfactory (75 – 90%) | Grey | Grey | Green | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Green | 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 45 | | | |
| | 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 | 97% | 10-Jan-11 | 25-Aug-15 | 223.8 | 90% |
| Time risk | 12-Mar-15 | 06-May-15 | 8.0 | 0% | 04-Aug-15 | 25-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 | 95% | 13-Jul-11 | 23-Jun-15 | 189.3 | 88% |
| Tyock | 11-May-11 | 02-Mar-15 | 182.4 | 99% | 22-Aug-11 | 08-Jun-15 | 181.6 | 99% |
| Chanonry Right Hand Bank | 24-May-11 | 02-Mar-15 | 180.4 | 99% | 06-Jun-11 | 11-Jun-15 | 193.2 | 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 | 96% | 04-Apr-11 | 19-Jan-15 | 154.2 | 100% |
| Grampian Road | 07-Feb-11 | 02-Mar-15 | 195.0 | 96% | 07-Feb-11 | 25-Jun-15 | 211.6 | 89% |
| 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 | 96% | 04-Apr-11 | 14-Apr-15 | 194.0 | 93% |

| Progress Programme | | | | | | | | |
|---------------------------|-----------------------------|-------------|------------------|-----------------------|-----------------------|-------------|------------------|-----------------------|
| Activity | Original Accepted Programme | | | | Programme Revision 45 | | | |
| | 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 | 26-Jun-15 | 69.6 | 76% |
| Cooper Park | 04-Apr-11 | 03-Sep-14 | 166.2 | 100% | 30-Jan-12 | 28-Apr-15 | 135.2 | 95% |
| Lossie Wynd Bridge | 26-Nov-12 | 24-Sep-14 | 87.4 | 100% | 08-Sep-13 | 18-Jun-15 | 85.1 | 74% |
| Borough Briggs | 17-Jun-11 | 16-Sep-13 | 109.2 | 100% | 11-Jun-12 | 14-Apr-15 | 116.6 | 90% |
| 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 | 07-Apr-15 | 84.2 | 93% |
| Old Mills | 04-Feb-13 | 18-Sep-13 | 31.8 | 100% | 30-Jan-13 | 07-Apr-15 | 93.0 | 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 | 95% | 21-Mar-12 | 04-Aug-15 | 163.8 | 82% |
| Clear Site & Demobilise | 05-Jan-15 | 11-Mar-15 | 8.0 | 0% | 09-Jun-15 | 03-Aug-15 | 8.0 | 0% |