APPENDIX 1

THE PROPOSAL

a) BACK BURN

A941 Residual Flooding Drainage North of Rothes - Existing filter drainage along western side of the A941 to be upgraded by installing a new sub-surface, stone filled filter drain approx. 470m northwards from the roundabout. A new filter drain, approximately 70m long, of similar construction will be installed along the eastern side of the A941 as it approaches Rothes.

Channel Works Caperdonich Bridge to Confluence of Burn of Rothes – Immediately downstream of Caperdonich Bridge, the existing gabion wall approx. 25m long on the left-hand bank will be repaired/replaced. The existing fence will be replaced to maintain security to the adjacent bonded warehouses. A smooth finish concrete floodwall, approx. 0.7m high and 140m long will be constructed along the southern edge of the road downstream of Caperdonich Bridge.

On the right hand bank, for 130 m adjacent to a proposed embankment, the existing channel bank will be re-graded and re-seeded after the existing ground level is reduced by approx. 3m.

Embankment around Rothes Football Ground - A new grass embankment, approx. 2m high, 8m wide and 240m long will be constructed alongside the Back Burn and return around the eastern side of the football ground, Mackessack Park. (The embankment then extends a further 160m through Rothes Park and a footpath constructed to link the embankment to the new Bairns Brig (see below)). The crest width of the embankment will be 3m with a gravel access track along the crest.

Channel Works Caperdonich Bridge to New Street Bridge (A941) - On the right-hand bank, between the south-west corner of Caperdonich Bridge and the existing retaining wall immediately downstream of the existing Station Street Bridge, the bank will be widened by up to 5m and a floodwall and vehicle barrier, approx. 0.5m high and 45m long, constructed. A drainage sump and interceptor will be constructed on the right-hand bank south of the new floodwall within the grounds of Caperdonich Distillery. The existing wall immediately downstream of Station Street Bridge on the right-hand bank will be stabilised. A new road will be provided between Station Street and Caperdonich Bridge through the grounds of the Distillery. The existing Caperdonich Bridge will be up-graded with a new bridge, approx. 10m wide and 6m long with an asphalt surface over a concrete deck and steel parapets.

On the left-hand bank between Caperdonich Bridge and Station Street Bridge the existing gabions, will be replaced with a new gabion wall, approx. 55m long and a new vehicle barrier installed along the road.

Station Street Bridge will be removed (and not replaced) with the abutments retained as part of the new channel walls. A new 1m high concrete floodwall will be constructed on top of each abutment. A fish pass (details to be submitted) will be installed over the steps in the channel beneath the location of the existing bridge.

Between Station Street Bridge and New Street Bridge, concrete retaining walls, approx. 3m high and 30m long, will be constructed along both banks with struts below the bed of the burn and the bed will be reinstated. The surface of Station Road will be raised by approx. 0.2m to tie into the new retaining walls on the left-hand bank.

Parapet works to New Street Bridge (A941) - A new 1.05m high concrete parapet will replace the existing parapet on the upstream face of New Street Bridge. The new parapet will tie in with the concrete wing walls provided on both sides of the upstream channel banks.

Channel Works New Street Bridge (A941) to Glen Grant Access Bridge - On the left-hand bank, a new concrete floodwall, approx. 9m long and 1.05m high will be constructed from the north-west corner of the parapet of New Street Bridge. A fish pass (details to be submitted) will be installed over the two small steps in the bed of the burn immediately upstream of New Street Bridge.

On the right-hand bank, between the south-west corner of the parapet of New Street Bridge and the northern face of the garage building at the end of Breich Street the existing garden wall will be removed and replaced by a new floodwall approx. 1.05m high and 35m long on the same alignment. Existing gabions along the bank in front of the new floodwall will be repaired/replaced as necessary.

A waterproof barrier will be provided to the garage at the end of Breich Street. Upstream of the existing garage a set of demountable stop logs, approx. 3.5m long will be installed, to provide access for maintenance from Breich Street. A new concrete floodwall approx. 9m high will be constructed from the northern face of the distillery building to tie into the stop logs. A set of steps, approx. 1.3m wide will be constructed over the new floodwall to maintain access to the existing fire escape from the distillery building.

Rock scour protection will be placed along the channel bed for approx. 550m of both banks downstream of Glen Grant Access Bridge.

Glen Grant Access Bridge - The existing Glen Grant Access Bridge will be removed and replaced by a new bridge approx. 5m wide and 8m long, with its abutments in line with the channel walls. The bridge will be finished with an asphalt surface over a concrete deck and stone faced parapets re-using stone from the existing bridge.

Channel works Glen Grant Access Bridge to Glen Grant Visitor Centre - On the right hand bank between the south-west corner of the new parapet of the Glen Grant Access Bridge and the eastern face of the Filling Store, a new concrete floodwall clad in stone,

approx. 7m high and 25m long will be constructed on top of the existing channel wall. The distillery building (Filling Store) will be waterproofed.

On the left hand bank, the existing concrete retaining wall immediately upstream of the Glen Grant Access Bridge will be removed. Extending approx. 60 m upstream, the ground will be re-profiled and the new slope protected with a seeded geotextile and rock scour protection at the base. A new stone clad concrete retaining wall, approx. 0.7m high and 4.5m long will be constructed from the north-west corner of the abutment of Glen Grant Access Bridge to tie into the new bank profile.

A new concrete floodwall approx. 1.1m high and 50m long will be constructed on the right-hand bank around the edge of the Visitor Centre Gardens. The new wall will tie into the north-eastern side of the existing Visitor Centre building at its upstream end and into the northern side of the distillery building (Filling Store) at its downstream end. A new flap valve arrangement will be installed on the end of the existing Distillery Lade to prevent water backing up the Lade.

The Visitor Centre and the Filling Store on the right-hand bank will be provided with a waterproof barrier. The existing Glen Grant Visitor Centre Footbridge will be removed and replaced by a new footbridge downstream (see below). The existing entrance to the building sealed up to provide a continuous flood defence level.

Glen Grant Visitor Centre Footbridge - A new footbridge, approx. 25m long and 2m wide with a timber deck and steel parapets (coloured green) will be constructed downstream of the existing Visitor Centre. The new bridge will link the footpath from the Visitor Centre car park (left-hand bank) and the Visitor Centre Gardens (right-hand bank). The bridge will span over the top of the re-profiled slope on the left-hand bank and the floodwall around the Visitor Centre Gardens on the right-hand bank. Landscaping within the Visitor Centre Gardens will be adapted, including tree removal to tie into the end of the new footbridge.

Channel Works Glen Grant Visitor Centre to Glen Grant Lade Footbridge - From approx. 80m upstream of the Visitor Centre, the right-hand bank will be widened up to 3m over an 80m length extending further upstream. A new concrete floodwall approx. 0.3m high and 160m long will be constructed around the top of the widened channel and extend downstream to tie into the side of the Glen Grant Visitor Centre.

Glen Grant Lade Footbridge - The Glen Grant Lade Footbridge abutments will be raised in situ by approx. 0.5m. The footpaths leading to the bridge will be re-graded to tie into the footbridge.

Channel Works upstream of Glen Grant Lade Footbridge to Glen Grant Garden Footbridge - Within the Victorian Gardens, a rock revetment will be placed in the stream bed to minimise scour along the left bank. The existing channel will be realigned with the right hand bank widened approx. 7m over an approx. 75m length.

b) BURN OF ROTHES

Embankment Downstream of Provost Christie Drive **-** A grass seeded earth embankment approx. 2m high and 150m long will be constructed along the rear boundaries of 16 - 25 Provost Christie Drive. The north-west end of the embankment abuts a new floodwall (see below).

Channel Works Confluence Burn of Rothes and Back Burn to Football Ground Footbridge including Embankment adjacent to Bairns Brig **-** A new concrete floodwall approx. 1.1m high and 220m long will be constructed along the rear boundary between 25 – 43 Provost Christie Drive with rock scour protection placed at the base of the bank. A 67m long rock revetment will also be constructed in front of the floodwall between the rear boundaries of 33 - 43 Provost Christie Drive.

On the right hand bank, extending upstream from the rear boundary of 43 Provost Christie Drive, a new grass seeded earth embankment, approx. 1m high and 110 m long (i.e. approx. 75m to Bairns Brig and a further 30m beyond) will be constructed. The toe of the bank will be protected by rock scour protection. Behind the embankment the area will be landscaped, with transplanted trees and footpath links from Provost Christie Drive and the Primary School connecting into Bairns Brig.

New Bairns Brig **-** The existing approx. 10m long span of Bairns Brig will be extended by two additional spans for a further approx. 20m. The new bridge, supported on concrete bridge piers with a timber deck and steel parapets (coloured green), will have rock scour protection provided under the bridge on the right hand bank. The bridge extends over the channel widening works to be undertaken along the left hand bank within Rothes Park to provide a two-stage channel both upstream and downstream of the Bridge.

Channel Works Bairns Brig to Playground Footbridge including Embankment adjacent to Bairns Brig **-** From New Bairns Brig to the New Playground Bridge, and for approx. 320m the left bank of the channel will be widened by approx. 15m to provide a two-stage channel. The existing pavilion building will be demolished to accommodate the widened channel. The new embankment around Mackessack Park extends along part of the left bank of the widened channel. A new maintenance track/footpath will be constructed along the left hand bank to replace the existing path and connect into the new Bairns Brig.

Behind the new embankment/widened channel, a new pavilion building will be provided, approx. 15.1 x 8.3 x 4.3 (to ridge) with dry dash rendered walls and a steel roof (colour to be agreed). The existing equipped play area will be re-instated along with the football pitch area (to be turfed).

On the right hand bank, the existing gabions will be repaired/replaced as necessary and rock scour protection will be installed along the base of the right-hand bank.

New Playground Footbridge **-** The existing Playground Footbridge will be demolished. A new bridge, approx. 15m long and 4m wide with an asphalt surface over a concrete deck and profiled concrete parapets will be constructed approx. 8m upstream. This new bridge will replace the existing bridge and Green Street Bridge to be demolished but not replaced.

Channel Works Playground Footbridge to Green Street Bridge **-** On the right hand bank for approx. 45m the existing gabion will be repaired and stabilised with rock scour protection installed along the base of both banks. On the left hand bank the existing footpath will be re-instated once construction works are complete.

Channel Works Green Street Bridge to A941 Bridge **-** New concrete floodwalls clad with reconstituted stone, approx. 0.75m high, will be constructed upstream from the current location of Green Street Bridge for approx. 70m and 60m on the left and right banks respectively. On the left hand bank an access ramp over the wall will be provided (for maintenance) and construction of the wall will require the demolition of a garage (the Gala Store) which will not be replaced. At the base of each bank in front of the floodwalls rock scour protection will be installed.

Extending approx. 50m downstream from the A941 Road Bridge, concrete retaining walls approx. 4m high and clad in natural stone will be constructed along both banks with struts below the bed of the burn. The bed of the burn will be reinstated.

A941 Bridge **-** The existing A941 Bridge will be demolished and replaced by a new bridge with a higher soffit level, approx. 13m long and 12m wide with a concrete deck and profiled concrete parapets (incorporating the Rothes Crest). The approaches to the bridge will be re-graded to tie into the new bridge. Works in this locality will require the demolition of two properties, 2 - 4 and 6 Burnside Street (left hand bank upstream of bridge) and the Burgh Chambers and the public toilets (left hand bank downstream of bridge).

During replacement of the existing A941 bridge, a temporary bridge crossing (with 7.5 tonne weight restriction) will be provided immediately upstream of the existing bridge. Once the new bridge is constructed the existing small landscaped amenity area (right hand bank) will be re-instated. An landscaped amenity area enclosed by stone walls and with seats will be provided over the area of the demolished cottages with provision for an access (for maintenance) leading to the Burn.

The area of the Burgh Chambers will be re-developed to form a landscaped amenity area enclosed by stone walls with car parking (6 spaces), a recycling point and new public conveniences. The latter building is approx. 8.1 x 4.9 x 3.6m (to ridge) and externally finished with local dressed stone and slates (salvaged for re-use form the existing building).

Channel Works A941 Bridge to Cemetery Footbridge **-** Within the new amenity area on the left hand bank, a new concrete floodwall with stone cladding, approx. 1.1m high and

70m long will be constructed to tie into the retaining walls upstream and into the A941 Bridge parapet.

On the right hand bank a new concrete retaining wall with stone cladding, approx. 3.5m high and 50 m long will be constructed on the right-hand bank to tie into the upstream A941 bridge abutment. Rock scour protection will be placed in the channel at the base of the retaining wall on the right hand bank. The weirs in the channel bed upstream of the A941 bridge will be removed.

Extending upstream from 6 Burnside Street a new concrete retaining wall approx. 3.5 m high and 110m long will be constructed along both banks with struts below the bed of the burn. The bed of the burn will be reinstated.

Thereafter from in front of Glen Spey Distillery and tied into the downstream retaining walls (see above) new concrete floodwalls, up to 1m high will be constructed. These extend upstream for approx. 60m (right hand bank) and 70 m (left hand bank). Rock scour protection will be placed in the channel along the base of both banks.

Embankment at Glen Spey Distillery - A grass seeded earth embankment, approx. 0.7m high and 80m long will be constructed on the right-hand bank upstream of the Glen Spey Distillery across an area of rough grassland between, and tying into the existing Lade embankment and the downstream floodwall.

Channel Works Cemetery Footbridge to Cemetery Road Bridge - A new concrete floodwall, approx. 0.4m high and 80 m long will be constructed on the left-hand bank between the Cemetery Footbridge and the Cemetery Road Bridge.

The Cemetery Footbridge will be removed and replaced during the construction phase by a temporary vehicular bridge. This temporary bridge will be removed once construction on the new road bridge is complete. The original footbridge will be replaced in its current location.

Cemetery Road Bridge - The existing Cemetery Road Bridge will be demolished and replaced with a new steel truss bridge, approx. 14m long and 10m wide. The approaches to the bridge will be re-profiled to tie into the new bridge, which incorporates a footway.

Channel Works Cemetery Road Bridge to Glenrothes Distillery Access Bridge - The Glenrothes Distillery Access Bridge will be demolished and replaced further upstream (see below). An existing fuel tank will be demolished and a new tank located further upstream adjacent to the new access bridge (details of design of tank yet to be submitted). A new concrete floodwall, approx. 1.1m high and 110m long will be constructed along on the right hand bank between the Cemetery Road Bridge and the new Glenrothes Distillery Access Bridge. The floodwall will tie into the parapets of both bridges.

Between the Cemetery Road Bridge and the Glenrothes Distillery Access Bridge, new concrete retaining walls approx. 2m and 3.5m high will be constructed along right and

left banks respectively with struts below the bed of the Burn. The bed will be reinstated. On the right bank the bank will be in filled.

Glenrothes Distillery Access Bridge - The existing Glenrothes Distillery Access Bridge will be demolished and replaced with a new bridge constructed approx. 25m upstream. This new steel truss bridge is approx. 14m long and 10m wide and will include a footway. The approaches to the bridge will be re-profiled to tie into the new bridge.

Channel Works Glenrothes Distillery Access Bridge to Glenrothes Distillery Footbridge - The new (relocated) fuel tank will be located over an existing timber store (to be demolished) on the right bank. A new concrete floodwall approx. 1.35m high and 50m long will be constructed upstream between the New Distillery Access Bridge and the existing Glenrothes Distillery Footbridge (removed but not replaced).

The existing gabion wall on the left hand side of the channel will be realigned. A new concrete retaining wall approx. 4m high and 30m long will be constructed and tie into the New Distillery Access Bridge.

Trash Screen - A timber trash screen will be constructed in the burn approximately 80m upstream of the position of the existing Glenrothes Distillery Footbridge. The bed of the burn will be reinstated. A concrete block revetment will be installed on the left bank adjacent to the trash screen.

c) BLACK BURN

Outfall at River Spey - A new concrete culverted outfall structure approx. 10 x 1.8 x 2 m will be constructed. A new channel approx. 70m long will be excavated to link the existing burn channel to the new outfall. The existing channel route will be in-filled, profiled to tie in with local ground and grass seeded over. The existing access track will be re-instated over the culvert and a 3m turning area constructed for use by maintenance vehicles.

Farm Track Culvert - A new culvert, approximately 12m long will be constructed in the same location as the existing structure. Over a length of approx. 27m the farm access track will be re-profiled to tie into the new structure and raised over the culvert. To bypass the farm track culvert, a new channel approx. 70 m long will be excavated from the Land Street drainage channel to the Black Burn Channel. The existing channel will be filled and seeded over a length of approx. 20m.

Channel Realignment and New Embankment between A941 and Railway Embankment, and Railway Embankment Bridge - The existing channel between the A941 and the railway embankment will be realigned/diverted over a distance of approx. 180m. Behind the former petrol filling station and for approx. 60 m the existing channel will be in-filled and seeded over. The remaining area between the existing and new channels will be left to re-naturalise. A new channel, approximately 11m wide will be excavated through the railway embankment. A new bridge, approx. 4m wide with a

concrete plinth and aluminium parapets will be constructed across the new channel to maintain the access along the embankment.

An earth embankment approx. 210m long and 1 - 3m high will be constructed between the A941 and the railway embankment. The crest of the embankment will be approx. 4m wide and incorporate an access track for maintenance. The embankment will be landscaped in conjunction with the storage pond (see below).

Storage Pond in Field Adjacent to Land Street and A941 **-** A storage pond, approx. 150 x 30-45 x 1.4m (depth), with a capacity of approximately 2,900m^3 will be excavated in the field adjacent to Land Street and the A941. The storage pond will link into the existing ditch to the south east of Land Street via an 80m long underground pipe.

Land Street Outfall with Flap Valve **-** A new outfall, approximately 15m long will be constructed with a flap valve on the eastern side of the disused railway line.

A941 and Land Street Residual Flooding **-** A new underground surface water drainage system, to deal with residual flooding will be installed along the A941 and link into the storage pond.

Drainage Ditch and Culvert under Golf Course Road **-** A new drainage ditch, approx. 1m deep and 200m long will be excavated through a field to the west of the Rothes Castle, passing under the Golf Course Road. A culvert, approx. 5 x 1 x 0.5m will be constructed under the Golf Course Road with a flow deflector and slot drain constructed at the culvert. Thereafter the new drainage ditch extends south for approx. 410m across farmland along the top of an escarpment slope (located along the western side of the A941). An access track for maintaining the ditch and the cascade (see below) will be constructed adjacent to the new channel with a turning area for maintenance vehicles constructed close to the top of the cascade.

Channel Works and Drainage Golf Course Road **-** Approx. 220m of the left hand grass verge between the Golf Course Road and the existing drainage ditch along the road will be lowered to allow water to flow from the road into the ditch. Five sets of flow deflectors and slot drains will be installed along the Golf Course Road to collect the water. At its eastern end, the existing drainage ditch will be realigned and stabilised over a length of approx. 30m. The old ditch will be filled and seeded over.

Culvert under A941 and Channel Works Upstream A941 (adjacent to Blackburn Cottages) **-** A concrete culvert, approx. 18 x 2.1 x 1.5m will be constructed under the A941 and feed into the existing downstream Black Burn channel. Upstream of the culvert concrete, the existing channel profile will be altered to a stepped series of concrete U-shaped sections, approx. 2.1m wide over a distance of approx. 14m. A new gabion wall approx. 50m long will be constructed from the culvert inlet along the right hand bank adjacent to the Blackburn Cottages and a new post and rail fence and safety barrier along the left hand bank adjacent to an access track. Immediately downstream of

the A941, an approx. 10m length of the channel will be widened and re-aligned with erosion protection installed.

Cascade and Culvert under A941 - An S-shaped cascade channel, approximately 115m long will be constructed between the new ditch arrangements at the top of the escarpment to the base of the escarpment. The cascade will be rock lined and comprise a stepped series of U-shaped channels approx. 2m wide. At the top of the cascade an approx. 10 section of an existing channel will be in filled to divert flows down the cascade.

At the base of the escarpment a new culvert, approx. 12 x 2.1 x 2.2m with concrete faced headwalls will be constructed under the A941 to link the new cascade channel into the existing channel downstream of the A941.