Ardersier Wastewater Treatment Works

TRAFFIC MANAGEMENT PLAN

Rev No.	Description	Date
0.1	Draft for Consultation	13th October 2016
0.2	Final Draft	17th November 2016
1.0	Final for Issue	22nd November 2016
1.1	Updated following final comments from THC	2nd December 2016
1.2	Updated following further comments from THC	5th December 2016

Contents

1. Introduction

1.1. General Information

The village of Ardersier is located on the Moray Firth. It is approximately 10 miles north east of Inverness, 7 miles west of Nairn and 2 miles south east of Fort George (see Figure 1)

Figure 1

Scottish Water has received the grant of planning permission for the upgrade of Ardersier Wastewater Treatment Works (WWTW).

The work has been split into three projects:

- The extension of the existing waste water treatment works, which has operated for many years outside of Ardersier. Planning permission has been secured for the extension to the existing works under reference 10/02007/FUL and for the early implementation of Ultra Violet Treatment under reference 16/02464/FUL.
- The installation of a new underground waste water pipeline, which will transfer waste water from new developments in the area to the treatment works.
- The extension to the existing outfall pipe from the waste water treatment works to the north of the MOD firing range, near Fort George.

The locations of each of these are shown in Figure 2 and a description of each follows.

Figure 2

1.1.1. UV Project and Growth Project

These works will take place entirely on land owned by Scottish Water, adjacent to the existing Ardersier WwTW approximately 1km to the north west of the village. Access to the site will be from the public road (B9006) and the proposed construction traffic routes are along public roads only.

1.1.2. Outfall Extension Project

The outfall pipe for the WWTW currently discharges into the Moray Firth to the north east of Fort George. The extension of this pipe will involve construction work on the coast adjacent to the MOD firing range at Fort George and from the use of a barge platform just

off the coast. Site access for the outfall extension will be taken around the junction of the B9006 and the C1005 (Sunny Hillock to Fort George road).

The jack up barge is envisaged to be operated out of the Whiteness dock area and traffic management for this option is included in this plan. Should this not be available, an alternative harbour will be sought, reducing the traffic movements in this area.

1.1.3. Pipelines Project

The proposed route of the pipeline project is to enter the village from the south along the B9093, passing the Cheese Pantry and continuing along Stuart Street before turning off along the coastal path.

1.2. Scope

This document sets out the proposed Traffic Management Plan for the construction associated with the above noted works.

The requirement for a Traffic Management Plan is set out in Condition No. 15 of the WWTW Planning Permission (10/02007/FUL) which states:

"Development shall not commence on site unless a Traffic Management Plan (TMP) to identify all traffic management aspects of the development has been submitted to and agreed in writing by the planning authority. Thereafter there may be no deviation from the approved TMP unless the written approval of the planning authority is first obtained."

Planning permission for the installation of the UV equipment (16/02464/FUL) also includes a requirement under Condition No. 2 that states:

"No development shall commence until a Construction Traffic Management Plan (CTMP) has been submitted to, and agreed in writing by the Planning Authority.

In advance of submission to the Planning Authority the applicant shall consult with the community on the content of the Construction Traffic Management Plan. For the avoidance of doubt, the consultation shall as a minimum include consultation with the Community Council and provide the community council with a minimum of 14 day period of comment. Thereafter, the applicant shall submit a report to the Planning Authority alongside the Construction Traffic Management Plan detailing the consultation undertaken, any responses received and how these responses have been taken into account when preparing the final Construction Traffic Management Plan for submission to the Planning Authority.

Thereafter the agreed CTMP shall be implemented in accordance with the approved Plan to the satisfaction of the planning authority."

Although there are no planning conditions associated with works on the Outfall Extension Project or the village section (along Stuart Street) of the underground pipeline from Tornagrain, Inverness Airport and Castle Stuart developments, access/egress routes to these sites have been noted within this Traffic Management Plan for completeness.

It should be noted that this document does not cover the specific traffic management arrangements for the Stuart Street work planned to be done under a separate road closure (NRSWA covers this work). The plan does however cover the main access and egress routes for plant and materials. Until further site survey work is completed it is unknown whether a full road closure of Stuart Street is required. Any requirements will be discussed with the relevant stakeholders.

1.3. Route Assessment for the WWTW

A 'Route Access Assessment Report' was completed by Mott MacDonald in 2010 and initially identified 6 potential options for traffic management routes. These routes are shown in Figure 3.

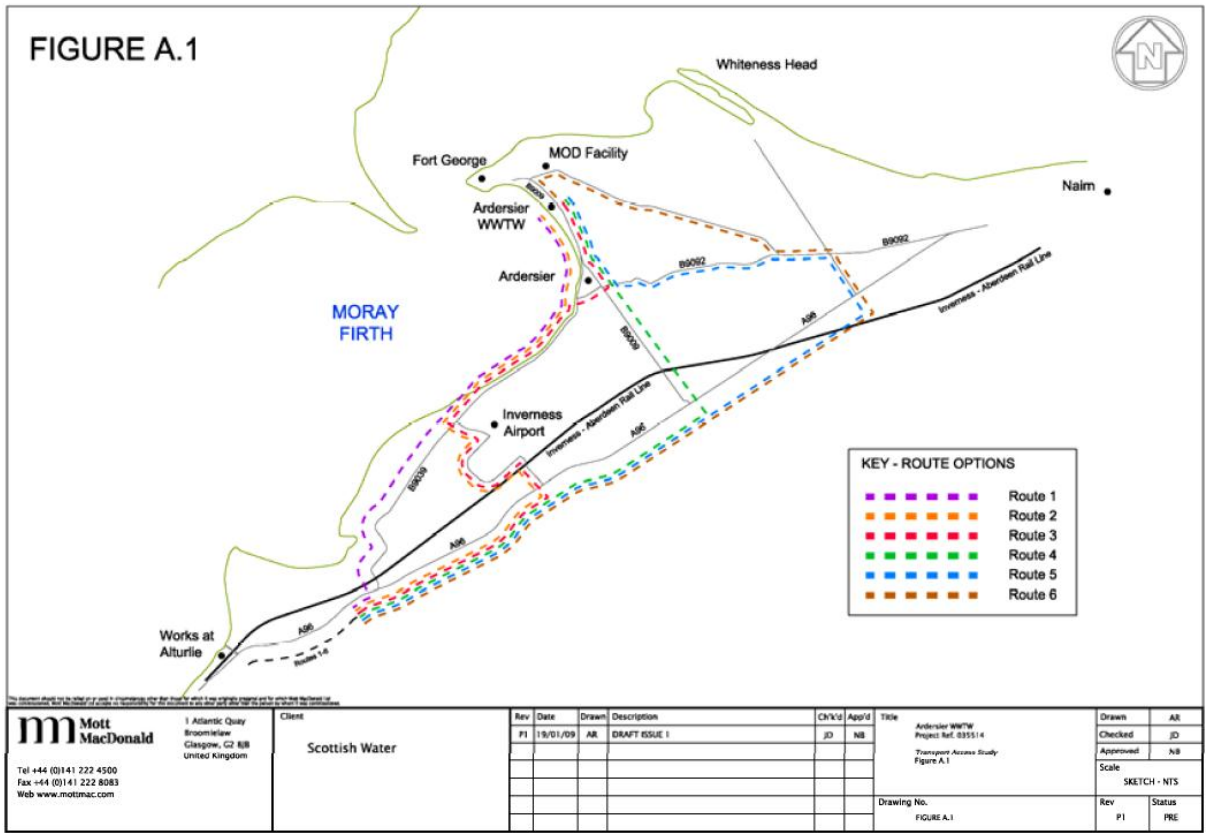

Figure 3

Following consultation and discussion with The Highland Council these options were reduced to 3 routes as shown in Figure 4.

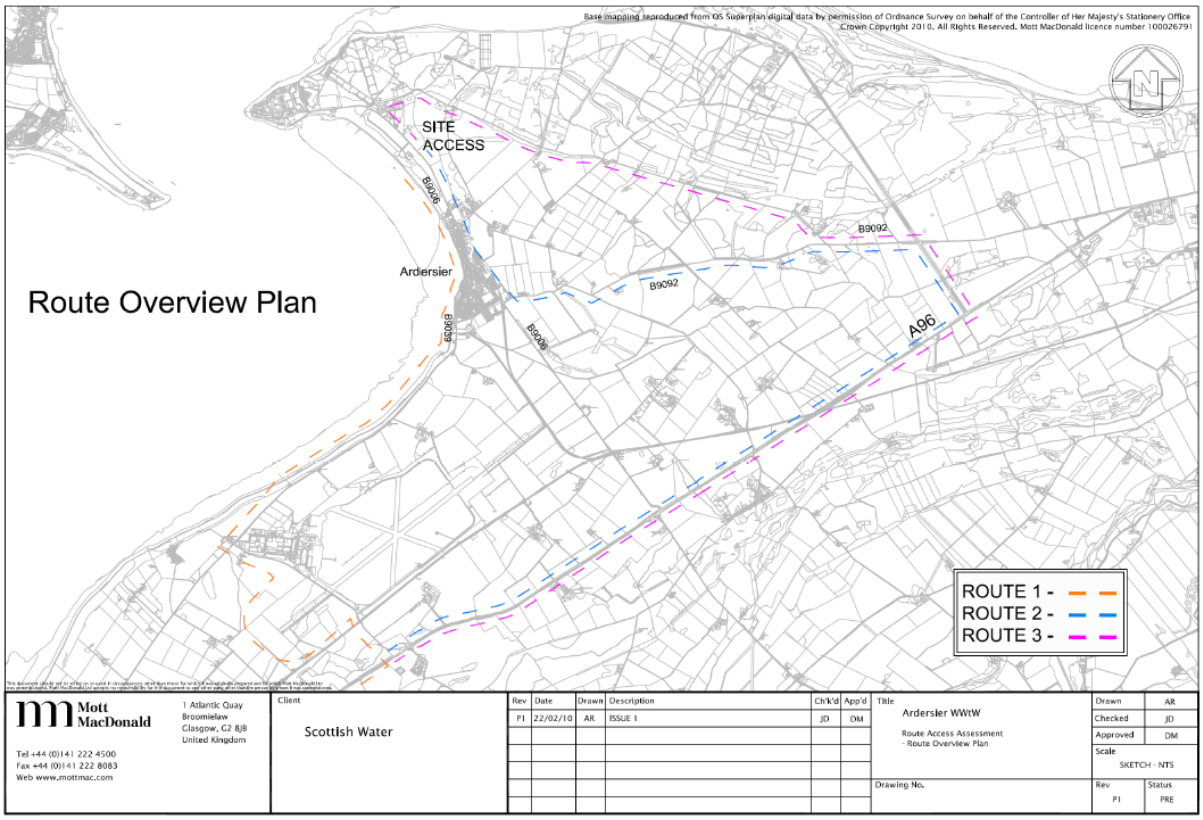

Figure 4

All three of these routes were identified as having the potential for use by construction traffic. However the use of Route 3, the C1005 road, from the B9092 (near Sunny Hillock) through Baddock and Kirkton and onwards to join the B9006 near Fort George, was identified as potentially needing significant infrastructure accommodation works to enable its use as a route for all construction traffic.

Route 1 through the village via Stuart Street was recommended by the Mott MacDonald Report. However, a review of the sight lines and junction of Stuart Street (B9039) and High Street (B9006) led to route 1 being discounted and route 2 being selected as the preferred route.

The preferred traffic management route (route 2) was presented at the community information events in June /July 2016.

Following feedback from the information events and from Community Council meetings, a review was undertaken of the potential use of the C1005 road from the B9092 (near Sunny Hillock) to the B9006 near Fort George.

A Traffic Management Route Option Review Report was completed by The Highland Council which identified a number of potential improvements that may be required for each of the traffic management routes to enable them to be used as the preferred option.

Subsequent site visits, route walkovers, and meetings with The Highland Council have taken place to try to develop and agree potential traffic management solutions.

1.4. Innovation to reduce traffic impact

Our plans include innovations which have reduced the number of vehicle movements through the use of modular assembly solutions and innovative construction methods.

Modular assembly solutions are factory built / off-site assemblies which are developed and produced to suit a specific application or set of site conditions. These can significantly reduce the time spent on site in the delivery of projects. They limit the impact from traffic movements through the reduction in travel of personnel and plant to/from site, reductions in individual deliveries of materials and a reduction in the production of waste materials.

Through challenging our construction technique for the outfall, we have been able to considerably reduce the number of HEAVY VEHICLE movements associated with this element of our works. This has involved changing to a barge based construction platform for the majority of the outfall's construction, not only reducing the aggregate imports required but also allowing piles and some other materials to be brought in by sea to reduce site traffic in the Ardersier area.

2. Consultation

As required by the Planning Permission for the UV Installation project (16/02464/FUL) the draft traffic management plan was issued to the Community Council and Local Members for an initial period of 2 weeks consultation.

The plan was also issued to 35 properties which were identified through Scottish Water's GIS system as being close to the proposed C1005 route.

Following contact from the Community Council, the consultation period was extended for an extra week to move it beyond the Community Council Meeting date. Following a further request to extend the consultation at the Community Council meeting, the consultation period closed on 11th November following a 4 week consultation period.

During the consultation period, representatives from SW attended a residents meeting with approximately 20-30 residents and also attended the Community Council Meeting.

Feedback from the consultation period has been considered and, where appropriate, updates to the TMP have been made.

2.1. Key feedback from Consultation on the TMP

During the Consultation period, feedback was received relating to a number of areas of concern, including:

- Volume of Traffic on C1005
- C1005 Not Suitable for Heavy Vehicles
- Potential Conflict with other Users of the Road
- Safety Risk
- Disruption
- Noise/Vibration
- Use of the Road in the Winter
- Repair and Maintenance
- Traffic through the village
- Specific Local Impacts
- Lack of Operational Traffic Information

These have been reviewed and, where possible, the TMP has been updated.

2.1.1. Alternative access through Whiteness

An alternative route option through Whiteness was considered following feedback from local residents however this was ruled out following discussions with the MOD, Defence Estates and the owners of Whiteness port.

2.1.2. Further upgrade works to C1005

Additional passing place improvements have now been agreed with the Highland Council in order to mitigate conflict with other users.

2.1.3. Use of the B9006 High Street for Light Vehicles

The main changes following consultation with the community is that light vehicles will access the site through the village. This will mitigate the concerns raised by residents along the C1005 regarding the volume of traffic accessing the site through this route and their concerns regarding the risk of accidents on the narrow roads. Heavy vehicle movements will still use this route to mitigate the impact if they were to go through the village. The amended approach is considered to balance the impact of vehicle volumes on the C1005 and through the village.

The numbers of light vehicles, whilst relatively low in the context of existing village traffic, would have been more significant in relation to the existing traffic on the C1005.This change spreads the traffic across a wider road network.

2.2. Ongoing Liaison

A Community Liaison Group is being established and will run for the duration of the projects. The group will provide a forum for Scottish Water and their contractors to present information on plans during construction, including traffic management, and allow the local community council and representatives of the community and other interested stakeholders, impacted by the development, to feedback their views and any issues encountered. Scottish Water will keep a log of vehicle movements to and from the site which will be used to inform discussion during these meetings.

Concerns will be documented and acted upon by Scottish Water accordingly. Each meeting will be minuted and minutes will be made publicly available to view.

Members of the public will also be kept updated via our Communications Team and through the Scottish Water website.

3. Traffic Routes

3.1. Vehicle Types

For the purposes of the traffic management plan, vehicles are divided into two groups,

- Heavy vehicles
- Light vehicles (<3.5T)

Where required, heavy vehicle traffic will be 'journey managed' under increased control measures to ensure the proposed routes can be utilised safely in conjunction with other users.

3.1.1. Heavy Vehicles

Three heavy vehicle traffic management routes are included in this plan:

1. **The C1005 Sunny Hillock to Fort George route** - For heavy vehicle traffic accessing the WWTW (UV and Growth Project), the Outfall Extension Site, and for pipeline materials required for work in the northern section of the pipeline route.
2. **Access to the Whiteness dock** – For materials, plant, equipment and personnel accessing the barge loading site.
3. **The B9093 from Dalcross** – For materials, plant, equipment and personnel accessing the pipeline route along Stuart Street.

3.1.2. Light Vehicles

A key change from the consultation on the draft TMP is that light vehicle traffic will no longer be guided to use the C1005 route to the WWTW and Outfall sites.

Light vehicle traffic entering the WWTW and Outfall sites will be guided to use the following routes.

4. **B9006 High Street** - For light vehicle traffic accessing the WWTW (UV and Growth Project), the Outfall Extension Site, and for work in the northern section of the pipeline route.

All access to the Whiteness site will follow the same route as outlined for heavy vehicle traffic.

All access to the pipeline work on Stuart Street will follow the same route as outlined for heavy traffic.

3.2. Key to Traffic Route Maps

KEY	
	Main Access Route (2 way traffic)
	Main Access on non-public road
	Road Closure
	HGV Holding Area

3.3. The C1005 (Sunny Hillock to Fort George) Route

All heavy vehicle construction traffic will be directed to and from the WWTW (UV and Growth) and the Outfall site via this route. This route will also be used for some of the pipeline heavy vehicle traffic when significant materials, plant and equipment are brought in for use in the northern section of the pipeline beyond the village.

The majority of heavy vehicle deliveries will use this route where reasonably practicable.

3.3.1. Route Summary

From A96 to Ardersier WWTW Site (Route Length 7.8km)

High level descriptions of the traffic management route are included below and are also shown on the map in Figure 5.

From A96T Whiteness Junction:

- McDermott's Road (900m)
- Left turn on to B9092
- Ahead B9092 (970m)
- Ahead past Kebbuckstone junction
- Right turn at Sunny Hillock on to Muir of Balnagowan to Fort George Road (C1005)

- Travel 1680m on to Upper Carse Junction
- Ahead at Upper Carse at Link Road Junction
- Ahead to the crossroads at Baddock (900m)
- Ahead to Junction at Giack (660m) – ROAD CLOSURE STARTS
- Ahead to Kirkton - ROAD CLOSURE ENDS JUST PRIOR TO KIRKTON
- Ahead to B9006 High Street/Fort George Road
- Left turn on B9006 to Construction site.
- Right turn into construction site.

From Ardersier SW WWTW Site to A96:

- Turn Left out of site onto B9006
- Ahead B9006 High Street/Fort George Road
- Right turn to C1005 (Fort George-Muir of Balnagowan Road)
- Ahead through Kirkton –ROAD CLOSURE STARTS
- Ahead passing junction at Giack – ROAD CLOSURE ENDS
- Ahead crossroads at Baddock
- Ahead at Upper Carse junction
- Ahead to Sunny Hillock junction
- Left on B9092
- Ahead past Kebbuckstone junction
- Right turn onto McDermott's Road
- Ahead to A96T

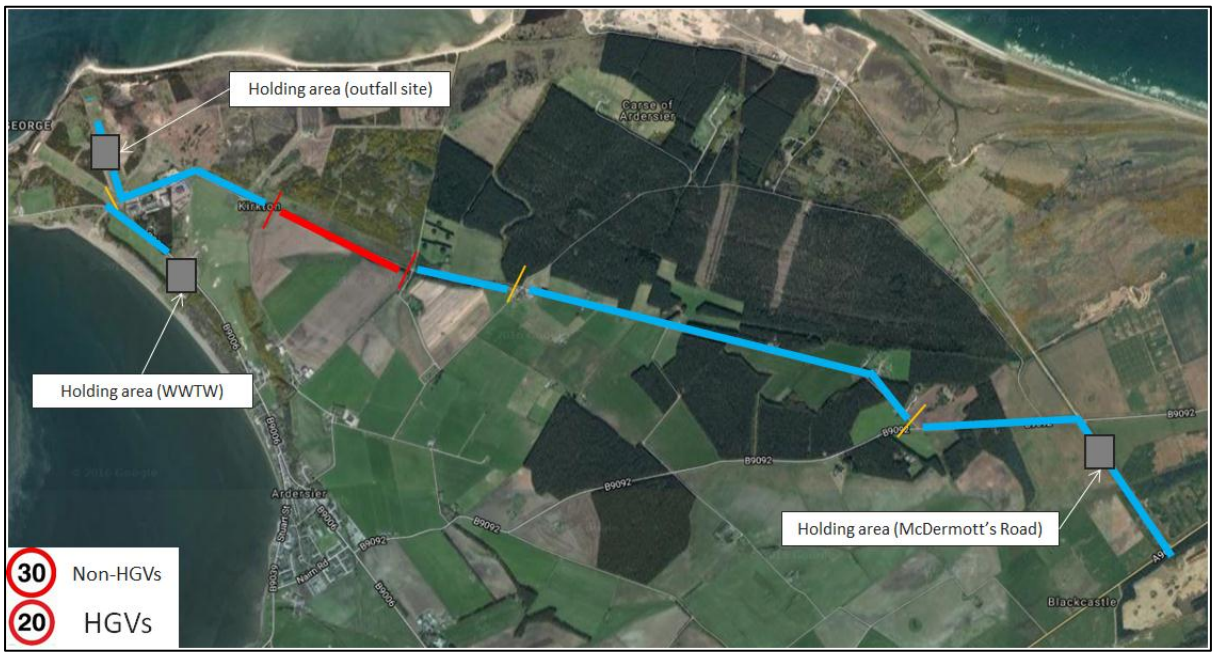

Figure 5

3.3.2. Route Activities

3.3.2.1. Pre-Works Requirements

A pre-start survey of the convoy route took place on the 20th September 2016 between representatives of Highland Council and Scottish Water.

The survey was to ascertain the existing condition of the road, identify works needed to protect the road against damage which would prevent its safe use, and identify works required to allow the required traffic movements. It should be noted that these works were agreed on the basis of a 'journey management' plan for heavy vehicles, allowing their movements to be controlled and managed more closely than on an 'open road' basis.

These upgrades will be completed prior to the bulk of work starting on site at the WWTW. Traffic management drawings, layouts, notices and Temporary Traffic Regulation Orders (TTROs) / Temporary Traffic Regulation Notices (TTRNs) will be sought in advance of any operations.

In finalising this schedule of improvements, Scottish Water will maximise the lengthening and widening of passing on the C1005 to better accommodate potential conflicts between construction and non-construction traffic.

3.3.2.2. Road Closure

To support safe transit of construction vehicles along the route, a road closure along a section of the C1005 will be put in place via a TTRO.

This closure will be between the junction at Giack (west of the property 'Littleton') and just prior to Kirkton. This will allow free two-way access to the property of Littleton from the Baddock end and will allow free access down the unclassified side road at this point but will prevent through traffic to Kirkton. Two-way traffic will be maintained from the B9006 at Fort George to the hamlet of Kirkton allowing residents, businesses and other users to access from this end.

Signage will be installed at either end of the C1005 advising of the closure and also at the Baddock junction to the east of the road closure. Signage will advise of "Road Ahead Closed" and "Access Only".

Construction vehicles passing the road closure will be required to remove barriers for passage and replace once past.

The road closure is proposed to remain in place for the duration of the construction period however, in response to feedback regarding the potential disruption due to the road closure, Scottish Water will seek to reduce the periods of closure to align more closely with the operating hours of the sites and the construction activity. For clarity, it is envisaged that the road closure will be in place between;

- 07.00-19.00 Monday to Friday;
- 07.00-13.30 Saturday.

This will be reviewed once the road improvement activity has been completed and will be done in conjunction with the Community Liaison Group. This will hopefully enable local access to use the road outwith construction periods, both during the week and at weekends.

3.3.2.3. Heavy Vehicle Traffic – 'Journey Management'

It is proposed that all heavy vehicle movements are done under journey management to support smooth traffic management and mitigate impact on other road users.

A convoy and scout vehicle system will be employed for all heavy vehicles travelling through the C1005 traffic management route. The vehicles will be clearly liveried to indicate their purpose.

A holding area will be established at the McDermott's Road (see figure 3) for incoming heavy vehicles to await convoy escort. Clear signage with contact & operating information will be placed. Incoming heavy construction vehicles will wait at the holding area and contact the controller. A convoy controller will be appointed to assume charge of the operation.

Equivalent holding areas will be established at the WWTW site and within the Outfall site where outgoing heavy vehicles will wait to be escorted back along the C1005 route.

The controller will receive calls from people requiring convoyed access and will deploy the convoy vehicles. Both a scout vehicle and an escort vehicle will be deployed to ensure that any oncoming traffic is safely held in a passing place whilst the heavy vehicle travels along the route.

The scouting vehicle will proceed first, followed by the escort vehicle leading the heavy construction vehicles.

The scout will proceed forward to the first designated passing place to see the road is clear of oncoming traffic. If the road is clear to the passing place then the scout will radio for the escort vehicle to follow up to the passing place and wait there. The scout will then proceed towards the next designated passing place where the process will repeat.

Should the scout encounter an oncoming vehicle it will hold the driver in the nearest passing place until the convoy passes.

The convoy will continue on to the site under escort.

This procedure will also apply for heavy vehicles exiting site, starting from a holding point at the WWTW or Outfall sites and continuing along the C1005 to the B9092.

Instruction will be given to all staff, subcontractors, etc on the convoy system as part of their site safety induction.

Instructions will be given on delivery orders to use the convoy system where appropriate and of the routes to be taken.

Appropriate signage will be placed on all approaches, clearly identifying the different work areas and directing vehicles and those requiring access.

3.3.2.4. Maximum Speed of Vehicles through the route

For heavy construction vehicles the advisory speed will be 20mph and this will be managed by the convoy vehicle. To support the safe movement of heavy vehicles, there will be a 30mph advisory speed limit on the road for all other traffic.

3.3.3. Communication Methodology

3.3.3.1. Signage

Signage will be erected at the ends and approaches of affected roads to advise drivers of changes, restrictions, directions and diversions. Signage for construction traffic will be clearly marked to ensure that the different work areas, and the appropriate traffic management routes, are clearly identified.

3.3.3.2. Employees, Sub-contractors and suppliers

All site employed drivers will be inducted to the traffic management plan and regular Toolbox Talks will be carried out throughout the project to remind and refresh drivers of the TMP and any changes to requirements.

The traffic management plan will be communicated with Sub-contractors and toolbox talks shared as appropriate.

Orders for deliveries by suppliers will be accompanied by detailed instructions explaining the traffic management requirements. Toolbox Talks will also be shared with suppliers who will do significant numbers of deliveries for the projects.

3.3.3.3. Residents & Businesses

Letters will be sent out to all residents and business operators affected by the traffic management system. These groups will also be able to give feedback by the Community Liaison Group or direct to the Project Communications Advisor allocated to the project (see section 8).

Scottish Water will investigate options for providing information to residents regarding movement of escorted vehicles down the C1005. These will include options ranging from near 'real time' through to a point of contact for residents to contact to check the latest situation with regards to escorted vehicle movements. Proposals will be set out through the Community Liaison Group.

3.3.3.4. Ministry of Defence

Close co-ordination with the MOD will continue to ensure essential access is maintained for the duration of the works and to manage significant operational manoeuvres.

3.3.3.5. Other

Co-ordination will be undertaken with the refuse & recycling collection services and Royal Mail. This will be done through the TTRO process.

Arrangements will also be in place to ensure that our traffic management plans work in conjunction with significant events such as the Military Tatoo.

Scottish Water will be liaising with the school bus service to determine the scheduled drop-off and pick-up times at points affected by the C1005 traffic management route and will take steps to avoid construction traffic runs at those times.

3.3.3.6. Emergency Services

Emergency services will have access to the route at all times and will be given the convoy controllers contact details to advise of any operations. The convoy controller will liaise with the emergency services to ascertain when the route can be used again. Following the decision to allow Light Vehicles through the village, the potential impact on Emergency Services is further reduced.

3.3.4. Monitoring of Road Condition during Construction Phases

Regular pre start drive over to check for potholes, safety items and obstructions will be logged by the convoy controller and recorded in an operations log or suitable document. The convoy driver will be expected to report any safety defects developing during the operation shift to the controller. A stock of Instant Road Repair will be held to effect quick repairs of potholes and the like. Regular end of shift drive overs will be carried out to check for defects requiring repair prior to the next operation.

During hot periods any bleeding of fatting up areas can be treated by gritting using the convoy vehicle and a gritter.

In addition to the above, a fortnightly inspection by suitably qualified and experienced staff will be undertaken to look for any signs of potential major defects developing (E.g. embankment slippage, slumping, over-runs, etc).

Regular Joint Inspections will be undertaken with The Highland Council and the Council will also have the ability to monitor road condition on an ad-hoc basis throughout the construction period. Scottish Water will work closely with The Highland Council during this period.

Scottish Water will make timely repairs to any major defects that develop as a result of their operations that are a risk to either construction or public traffic using the route.

3.3.5. Winter Maintenance Provisions

A daily meteorological report will be obtained by the site for the convoy controller, to warn of winter conditions. Additionally agreement from the council will be sought to supply their daily action plan to alert the site to the likelihood of winter maintenance operations being required.

As part of the morning checks the controller can assess the route for treatment requirements.

A demountable gritter of 0.5m3 capacity or more mounted on a pick up would allow for spread rates to a lane width of at least 20g/sq.m. The gritter body can be mounted on the convoy vehicle so as always to be on hand. It can be transferred to any replacement convoy vehicle.

As supply of road salt of 6-10mm grading will be utilised for any pre salting. A covered supply of 50/50 sand salt mix would be kept on site for treating post freezing surfaces. The sand in the mix would give instant grip while the salt worked to thaw the ice.

3.3.6. Section 96 Provisions

Prior to the works there will be a pre-camp survey jointly carried out with the Highland Council as Roads Authority.

Post works a joint dilapidation survey will be carried out with the Roads Authority. Under the Roads Scotland Act 1984 Section 96 the roads authority are entitled to compensation for extraordinary expenses for damage caused by the operator by excessively heavy or extraordinary traffic.

It is proposed that Scottish Water will agree the extent of any damage caused by the construction traffic on the proposed site access routes with the council, using the pre camp and dilapidation surveys as reference.

Scottish Water will fund the repairs after the construction of their project is completed which means that the council will incur no extra ordinary expenses in this respect. Whether Highland Council carry out those works required then are reimbursed for them or whether Scottish Water engage a road maintenance contractor direct to do the work will be agreed.

3.3.7. Enforcement of the Traffic Management Methodology

The road closure will be covered by temporary traffic regulation orders. Since the project spans beyond the maximum 18 months duration of a TTRO then consecutive TTROs may be required.

The speed of escorted vehicles will be controlled by the escort vehicle at the head of the convoy.

There will be an advisory speed limit applied to the road and appropriate signage installed.

Unwanted ingress of traffic to the closed section will be controlled by barriers and any illegal manoeuvres will be reported to the police. Dash-Cam video cameras will be considered to allow monitoring of activity.

Signed diversions will be in place to direct traffic that is not able to use the closed section of route.

The method of operation will be included in the project method statements and the health and safety plan, therefore breaches by employees or site staff will be a disciplinary issue.

Contractor and sub-contractor site information packs/contracts will require compliance with the TMP.

3.4. Access to the Whiteness Dock

Whiteness Dock is currently the proposed docking harbour for the barge that will be used for the construction of elements of the outfall extension. This route description is included based on this current proposal.

All deliveries of materials, plant, equipment and personnel to this site will access via the McDermott's road (see figure 6)

Figure 6

There are no varying traffic management plans for this route and all vehicles will follow the below plan.

No pre-works, road closures or journey management arrangements are required for this route.

3.4.1. Route Summary

From A96T Whiteness Junction:

- McDermott's Road (900m)
- Cross the B9092 and exit the public road system, continuing down the old McDermott's road to the dock.

From Whiteness Dock

- Exit site along the old McDermott's road to join the public road at the junction of the B9092 and the McDermott's road.
- Cross the B9092 onto McDermott's Road (900m)
- Exit onto A96T from Whiteness Junction

3.4.2. Communications Methodology

3.4.2.1. Signage

Signage will be installed to direct vehicles to the Whiteness site and will also be installed to advise that this route is private and not open to public use.

3.4.2.2. Employees, Sub-contractors and suppliers

Communications for employees, sub-contractors and suppliers will be undertaken as outlined in section 3.2.3.2

3.5. B9093 from Dalcross to the pipeline works

This will be the main route used by heavy construction vehicles accessing the pipeline construction along Stuart Street. All heavy vehicle traffic accessing the pipeline works from the south will follow this route.

There is no specific light vehicle traffic management route to the south end of Stuart Street however light vehicle movements have been estimated within the tables in section 4.

As noted within section 3.2, any significant heavy vehicle deliveries of materials, plant and equipment for use in the northern section of the pipeline route beyond the village will be brought in via Route 1 of this Traffic Management Plan.

Materials holding areas will be established at both the northern and southern sides of the pipeline work and many of the large deliveries will be brought to these points before being moved into the construction area in smaller quantities as required.

It is recognised that, while traffic will be directed to use the prescribed traffic management routes, some vehicular access into the village will occur in order to access local facilities and services such as shops, accommodation, cafes, etc. It is also recognised that there will be unavoidable vehicular access into the village for the construction of the pipeline itself. This plan covers the traffic management routes for bringing materials to and from the area but does not cover traffic management plans for vehicle movements within the pipeline construction area itself.

Estimated vehicle movements forecast within section 4 are based on the current design.

3.5.1. Route Summary

High level bullets of the traffic management route are included below and are also shown on the map in Figure 7.

Access to Stuart Street

- Traffic exits the A96T at the Airport / Mid Coul roundabout junction
- Follows North around the airport exiting past Dalcross Industrial Estate to the junction with the B9039
- Turn right onto B9093 and head North West, passing the junction with the B9092 (Nairn Road) and onto Stuart Street.

Exiting the Stuart Street Pipeline site

- Exit Stuart Street at the southern end and join the B9093
- Pass the junction of the B9092 (Nairn Road) and head south easterly to the Hillhead Access Road into the Airport
- Turn left at the Hillhead access road into the airport, passing Dalcross Industrial Estate
- Follow the road south, bypassing the airport site (signpost Inverness)
- Exit the airport road onto the A96T at the Airport / Mid Coul roundabout onto the A96T

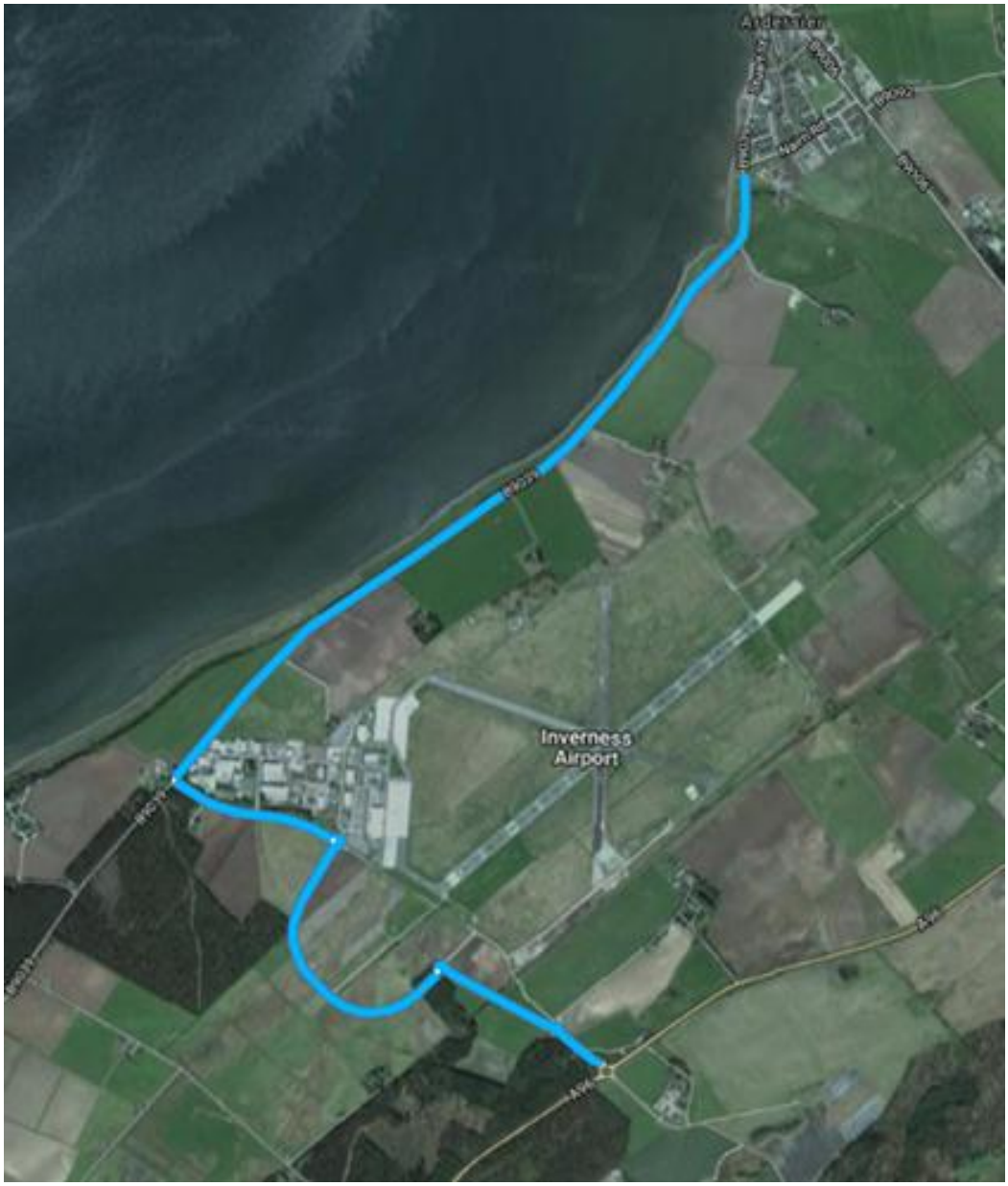

Figure 7

3.5.2. Route Activities

3.5.2.1. Pre Works Requirements

No specific pre-works are required for accessing the site from the south by this proposed route other than the installation of signage.

Any specific requirements identified following understanding of the construction methodology will be included in the specific arrangements for that work.

3.5.2.2. Road Closure

Road closure requirements for the works along Stuart Street are unknown until further survey work is completed in the area. Once understood, this will form part of specific traffic management arrangements for this portion of the construction.

3.5.2.3. Maximum Speed of Vehicles through the route

There are speed limits already in force on this access route and drivers accessing via these routes will operate to these limits. No further restrictions on speed are envisaged at this point however any specific arrangements for the work along Stuart Street will be identified once the construction methods are understood.

3.5.3. Communication Methodology

3.5.3.1. Signage

Signage will be installed from the A96T for construction traffic to direct them to the Stuart Street works.

3.5.3.2. Employees, Sub-contractors and suppliers

Communications for employees, sub-contractors and suppliers will be undertaken as outlined in section 3.3.3.2

3.5.3.3. Residents & Businesses

Specific communications to the local residents and businesses affected by the works, along Stuart Street will be articulated once the method of construction is better understood.

3.5.4. Monitoring of Road Condition during construction phases.

The site manager will be responsible for monitoring road conditions along Stuart Street during the works. A record of daily checks, reports and actions will be kept on site.

A stock of Instant Road Repair will be kept to affect any urgent repairs required. Laying and compaction tools will be available to the site as required.

3.5.5. Winter Maintenance Provisions.

Winter maintenance cover, where the road is kept open, will remain the responsibility of the council.

Winter maintenance within any site area will be the responsibility of the contractor under site safety rules.

3.5.6. Section 96 Provisions

Section 96 provisions will apply for this route in the same fashion as outlined in section 3.3.6.

3.6. B9006 High Street

Following the feedback from the Consultation for the draft TMP, a key change is to remove the requirement for light vehicle traffic to use the C1005, instead guiding light vehicle traffic to access the WWTW and the outfall site through the village.

3.6.1. Route Summary

No specific routes to or from the B9006 High Street access route have been specified as these will depend on the direction from which the vehicles arrive. It is generally expected that:

- Vehicles will entering from the East will access via the B9092 to join the B9006.
- Vehicles entering from the West will access via the B9093

3.6.2. Route Activities

3.6.2.1. Pre Works Requirements

No specific pre-works are required for light vehicle traffic accessing of the site from this route other than the installation of signage.

3.6.2.2. Maximum Speed of Vehicles through the route

There are speed limits already in force on this access route and drivers accessing via these routes will operate to these limits. No further restrictions on speed are envisaged at this point however any specific arrangements for the work in Stuart Street will be identified once the construction methods are understood.

3.6.3. Communication Methodology

3.6.3.1. Signage

Signage will be installed as required to ensure that heavy vehicle traffic does not use this route.

3.6.3.2. Employees, Sub-contractors and suppliers

Communications for employees, sub-contractors and suppliers will be undertaken as outlined in section 3.3.3.2

3.6.3.3. Residents & Businesses

Letter communications will be carried out to all residents and business operators affected by the traffic management system. These groups will also be able to give feedback by the Community Liaison Group or direct to the Project Communications Advisor allocated to the project (see section 8).

3.6.4. Section 96 Provisions

Section 96 provisions will apply for this route in the same fashion as outlined in section 3.3.6.

4. Estimated Traffic Flows

The tables below summarise the estimated construction traffic movements along each of the routes. Average and peak monthly figures are given and these are broken down to average daily figures.

For the purposes of this section, HGV vehicles are defined as vehicles >7.5T

Where applicable, peaking factors have been applied to estimate peak figures.

Due to delays in some of the elements of the project, there is a risk that overlap occurs between the different elements of the work in the area. The peak month figures have accounted for this risk and peaks are therefore calculated on overlap of the projects.

Numbers contained in the tables are 'movements'. One vehicle travelling into site and back out is counted as 2 movements.

4.1. Estimated Vehicle Movements along the C1005 or B9006 (High Street)

		Vehicle Type	Period	Total	Monthly Average	Average Day	Peak Month	Average Day Peak Month
C1005 Sunny Hillock to Fort George **OR** **B9006 High Street** **(Note: Route will depend on vehicle type as per TMP)**	TOTAL	HGV	Dec 16 to Oct 18	2889	126	5.0	279	11
		Non-HGV		20703	900	36.0	1692	68
	Growth Project	HGV	Jan 17 to Oct 18	2050	93	4	125	5
		Non-HGV		16600	755	30	1013	41
	UV Installation	HGV	Dec 16 to May 17	293	49	2	79	3
		Non-HGV		1075	179	7	250	10
	Outfall Extension	HGV	Dec 17 to April 17	210	42	2	53	2
		Non-HGV		2788	558	22	778	31
	Pipeline	HGV	Jan 17 to April 17	336	84	4	87	4
		Non-HGV		240	60	3	66	3

4.2. Estimated Vehicle Movements to/from Whiteness

		Vehicle Type	Period	Total	Monthly Average	Average Day	Peak Month	Average Day Peak Month
Access to Whiteness Dock	Outfall Extension	HGV	Jan 17 to April 17	140	35	2	44	2
		Non-HGV		896	224	9	280	11

4.3. Estimated Pipeline Vehicle Movements along the B9039 to Stuart Street

		Vehicle Type	Period	Total	Monthly Average	Average Day	Peak Month	Average Day Peak Month
Dalcross to Stuart Street	Pipeline	HGV	Jan 17 to April 17	395	99	4.0	109	4.3
		Non-HGV		2000	500	20.0	550	22.0

5. Site times

Site Times are:

- 07:30 – 18:00 on Monday to Friday and
- 07:30 – 13:00 on Saturday
- The site will be closed on Sundays.

Most site commuter traffic will be entering the site between 07:00 and 08:00 and will leave after 18:00 (13:00 on Saturdays). This will therefore not significantly affect school times.

Scottish Water will, wherever practicable, avoid all construction traffic movements through the village at key school traffic times of 08:30 to 09:30 and 14:30 to 15:30 (during term times).

6. Operational Traffic

6.1. UV Project

An Operational Phase TMP has been produced for the UV Installation Project as required by Condition 4 of the Planning Permission (16/02464/FUL.)

6.2. Growth Project

There are no significant changes envisaged to the Operational Traffic as a result of the delivery of the Growth Project.

6.2.1. Planned attendance:

Planned Operational attendance at site is currently 3 times per week and this is not forecast to change once the Growth Project is complete.

Ground maintenance is undertaken on a 4 weekly basis throughout the summer by framework contractor and this will continue once the upgrade is complete.

Planned mechanical and electrical maintenance is completed based on the maintenance scheduling system with visits approximately monthly for planned maintenance.

Planned cleaning of tanks can take place on an ad-hoc basis, resulting in a number of additional tanker movements to and from site.

Tanker movements are the significant HGV movement associated with the wastewater treatment process. Tankers currently take sludge from the site 2 to 3 times per week. Although there will be an increase in the Population Equivalent of the works, the more modern nature of the technology being installed will initially result in a decrease in the number of tanker movements, rising back to current levels once the design capacity of the new works is reached. In effect, the improved Dry Solids Content that is achieved in the modern sludge stream means that less water is carried per tanker and therefore more sludge is carried, reducing the number of vehicles for the same volume of incoming sewage.

6.2.2. Reactive attendance:

As with the current wastewater treatment works, response to telemetry alarms, intruder alarms and incidents can generate additional operator visits. Calls of this nature are generally very low and will not have a significant impact on traffic volumes.

Equipment breakdown also generates additional maintenance visits in order to repair or replace equipment but again it is expected that these volumes will be extremely low.

Where process treatment units require reactive intervention there is sometimes the need to empty and clean tanks or re-seed the biological process. Although this generates additional tanker visits, this is a very infrequent occurrence.

6.2.3. Changes to the Current Arrangements for Operational Traffic

Due to there being no significant changes to the operational traffic as part of the proposed works, it is not proposed that any changes will be made to the routing plans for operational vehicles.

Operational vehicles will however use the new access arrangements in place for the site.

7. Points of Contact

Key points of contact will be made available throughout the project and these will be communicated through the Liaison Group, via our Communications Team, and via the Scottish Water website.

Our current point of contact is:

- Trish Wilson (Project Communications Advisor)

Contact can be made through our Customer Contact Centre on 0800 0778 778.