

## 12 Traffic and Transport

This Chapter of the EIAR assesses the impact of the proposed development (i.e. the West Offaly Power (WOP) Station and Ash Disposal Facility(ADF)) on the traffic and transport network and proposes mitigation measures, as appropriate, to address any significant impacts that may occur. The chapter details changes in traffic movements during the construction phase, the operation phase and the decommissioning of the proposed development. It compares the increase in the traffic movements to a no development scenario and provides a comparison between the proposed and the existing development.

The proposed development includes for the continued operation of WOP Station and ADF and the proposed transition to exclusively firing on biomass. This section of the EIAR has been completed by Atkins Ireland.

A comprehensive Traffic and Transport Assessment (TTA) has also been prepared and is included as an appendix to this EIAR. This chapter summarises the key findings of that assessment and contains an assessment of the impact in accordance with EIAR procedures.

### 12.1 Introduction

The description of the proposed development (Chapter 4 of this EIAR) provides a full description of how the power station will operate into the future.

In summary, the existing peat-fuelled power station will transition in a phased basis towards the exclusive firing with biomass.

From the initial stage, immediately post 2020, biomass will be introduced. The volume of biomass will increase over subsequent years until the plant will be exclusively fuelled by biomass.

It is envisaged that, during the co-firing stage, peat will principally continue to be delivered to the station by rail and handled using existing plant facilities with some peat deliveries by road also continuing. As the transition to increasing quantities of biomass continues, both rail and road peat deliveries will decrease.

The WOP Station will be fuelled by increasing volumes of biomass, sourced from indigenous and non-indigenous sources. The principle source of indigenous fuel will be biomass sourced from the forest sector (e.g. brash, thinnings, and residues), biomass from Irish sawmills (e.g. woodchip and sawdust) and from the agricultural sector. Indigenous biomass will typically come from sources within a 100 kilometre radius of WOP but could also be sourced at greater distance depending on economic factors. Imported biomass, will be landed by bulk transporters of approximately 30,000 tonne capacity at key ports with facilities to handle biomass –such as Dublin Port and Greenore, Co. Louth on the east coast or Foynes Port, Co. Limerick in the Shannon Estuary on the West coast. It will also be possible to utilise Killybegs Harbour, Co. Donegal on the north west coast.

The proposed development also includes an extension to the existing ADF whereby additional landfill cells will be developed at the ADF.

The ADF is currently accessible via a c. 3km private roadway linking the site with the R357 from Shannonbridge to Cloghan, as well as being served by a dedicated Bord na Móna rail-line that links the station and the ADF site. No changes to the access arrangements are proposed.

## 12.2 Methodology

The methodology for this assessment follows the guidelines noted within Transport Infrastructure Ireland's (TII's) Traffic and Transport Assessment (TTA) Guidelines (2014), which is the industry accepted methodology for traffic and transport assessments.

The assessment of the impact follows the EPA's "Guidelines on the Information to be contained in Environmental Impact Assessment Reports" (Draft – August 2017).

In the process of preparing this chapter, consultation has been undertaken with Offaly County Council. An overall project information meeting was undertaken with Offaly County Council on the 29<sup>th</sup> March 2018 and a further meeting was held with the Birr Area Engineer on 23<sup>rd</sup> April 2018. During these meetings, the general approach to the production of this chapter was outlined and an overview of the project was provided.

At the meeting with the Birr Area Engineer the potential of using a one-way system, where delivery traffic enters from the junction beside St Kieran's Church and exits from the other junction approximately 1km to the southeast was mentioned by Offaly County Council.

The methodology also comprised a review of the traffic associated within the existing planning permission. Baseline traffic conditions were collected and traffic counts surveys were undertaken at key junctions within the Study Area. These traffic count surveys were undertaken from 06:00 – 24:00 from Monday – Sunday the 24<sup>th</sup> – 30<sup>th</sup> October 2016. The surveys recorded all vehicle and pedestrian movements at the key junctions.

A further traffic count was undertaken on the R357 from 20<sup>th</sup> August 2018 – 02 September 2018 to provide information on summer time traffic flows.

Traffic count data on the volume of non-haulage traffic and haulage traffic at the existing WOP Station was also reviewed as part of this methodology. This information was provided to Atkins by ESB.

Information on the anticipated traffic volumes associated with the transport of the biomass have been provided to Atkins by ESB and is based on detailed calculations on the energy produced by burning biomass and the volume of the delivery vehicles. Similarly, information of the likelihood and volume of peat traffic to the proposed development has also been provided to Atkins by ESB / BnM.

The traffic source of the biomass will be variable, the international biomass will arrive at major ports such as at Greenore Port, Dublin Port, Foynes Port or Killybegs and would be delivered to WOP via the national road network. Similarly, the indigenous biomass will be derived from state and private forestry operations and agriculture and will be delivered from many parts of the country including sawmills and forest plantations, but invariably would utilise the national road network to deliver and would converge onto the same routes as the imported biomass.

## 12.3 Current Situation

The plans and particulars of the current planning permission for the West Offaly Power Plant anticipated maximum and average truck movements for delivery of peat to the station. These noted that the peat will be transported by rail and by road. In terms of road transport, the anticipated maximum that would be delivered by road was 411,000t annually and an average of 250,000t annually.

It was calculated that this would equate to a maximum of 74 deliveries per day and an average of 44 deliveries per day. This would equate to 148 HGV traffic movements in the maximum scenario and 88 HGV traffic movements on average.

The existing WOP Station also has traffic movements associated with staff movements and the everyday business traffic along with deliveries of other material used in the operation of the power plant, these include deliveries of chemicals, lime, sand and removal of refuse. The deliveries of other materials amount to approximately one or two movements per day and are included within the existing baseline junction turning count.

These movements are part of the existing operation of the station, however if the WOP Station were to close in 2020 there would no longer be any associated traffic movements. The proposed development will see the continued operation of the WOP Station with continued traffic movements. In terms of the baseline to be assessed, it is necessary therefore to also determine the impact arising from these continued traffic movements.

## 12.4 Study Area

### 12.4.1 West Offaly Power Station

West Offaly Power Station is located adjacent to the town of Shannonbridge on the River Shannon, just downstream of its confluence with the River Suck, in Co. Offaly. It is adjacent to the village of Shannonbridge, which is approximately 850 m to the north, while the River Shannon borders the site to the west. The WOP Station is accessed from the west via the R357 from the Ballinasloe direction entering the town across the bridge and from the east also via the R357, see **Figure 12-1**. Shannonbridge can also be accessed via the R444, which passes by Clonmacnoise, but this road has not been used to transport fuel to the station and it also subject to a weight restriction. The main local access road to the station is either through

Shannonbridge village itself or via a local road from the southeast, part of which is within private ownership (Bord na Móna and private landowners), see **Figure 12-2**.

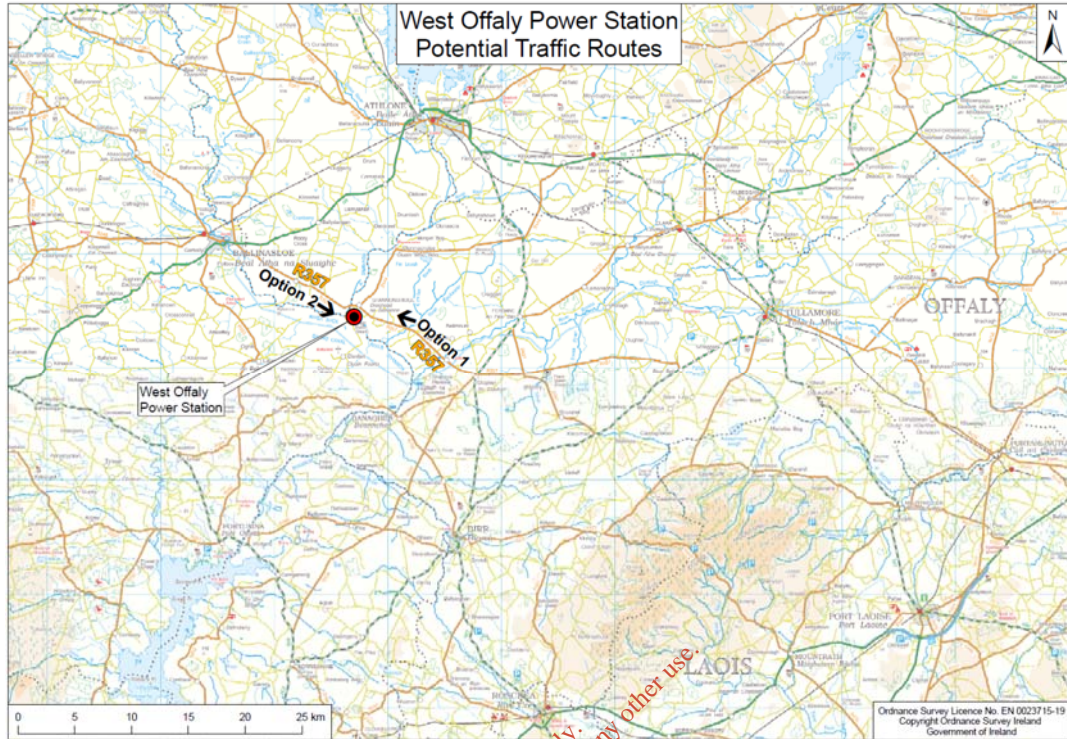


Figure 12-1: Access roads to WOP Station



Figure 12-2: Local access to WOP Station

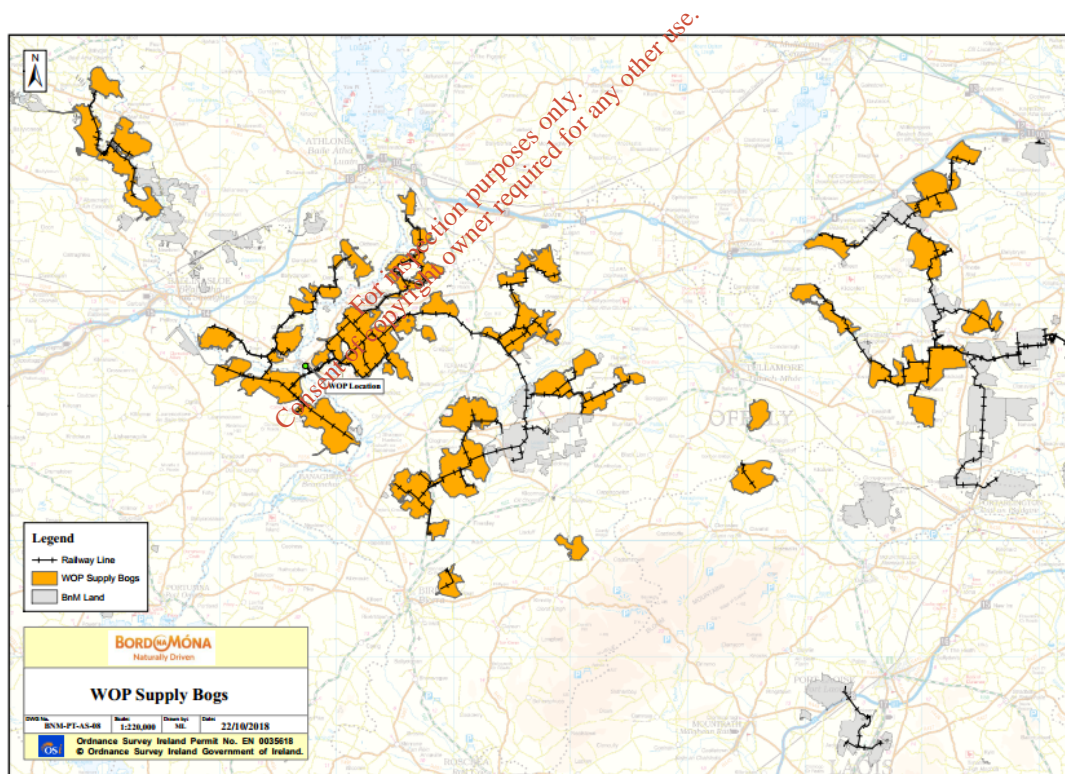
### 12.4.2 West Offaly Power Ash Disposal Facility (ADF)

The ADF is accessible via a c. 3km private roadway linking the site with the R357 from Shannonbridge to Cloghan, as well as being served by a dedicated Bord na Móna rail-line that links the station and the ADF site. The ash is transferred from the power station to the ADF by rail at an average rate of 2-3 deliveries a day.

### 12.4.3 Peat Supply to West Offaly Power Station

Peat fuel is mainly delivered to the WOP Station via the Bord na Móna internal rail network. Peat is delivered at a rate of six rail (rakes) deliveries per hour, with two rakes (peat trains) arriving at the station and unloading simultaneously, i.e. two rakes unloading every twenty minutes to the station.

Depending on the peat supply bog in use journey times by rail can take up to two and a half hours and entail some road crossings. The proposed peat supply bogs and associated rail network which will be used is provided in **Figure 12-3** .



**Figure 12-3: Bord na Móna peat supply bogs and rail network**

Bord na Móna also deliver peat by road to the station. This is an operational requirement which arises when climatic conditions reduce peat harvesting and storage operations necessitating additional deliveries by road from supply bogs.

The BnM maps within **Appendix 12.1** of this EIAR detail the location of the loading sites that may be used for the delivery of peat by road. It is anticipated that most of

the peat to the power station will be delivered by rail, however there may be times when the peat needs to be delivered by road as outlined above.

With reference to the BnM drawings the following is a list of the potential loading sites for the peat:

- Derryfada Tiphead
- Killaun Tiphead
- Derrinboy Tiphead
- Monietta Tiphead
- Derryclure
- Croghan Tiphead
- Toar Loading site
- Drumman Loading

The drawings also show the indicative delivery routes from these sites. There are, 5 route options from Derryfada, 2 from Derrinboy, 1 from Derryclure, 1 from Monietta, 2 from Croghan, 2 from Toar, 2 from Drumman and 2 from Killaun.

In the proximity of WOP, delivery routes will result in delivery traffic from Derryfada accessing the station from the north using the R357. These delivery vehicles will utilise the main access within Shannonbridge to enter the site but would exit via the BnM site access (this is to reduce the turning movements within Shannonbridge village centre).

Delivery vehicles from Killaun Tiphead, Derrinboy Loading Site, Monietta Tiphead, Coolnamona Tiphead will all approach the WOP from the south and use the R357 from Cloghan to access the power plant. These delivery vehicles will access and exit the power plant using the BnM works access junction.

Delivery vehicles from the Croghan, Toar, Drumman can access power plant from both the north and south using the R357 locally.

#### 12.4.4 Biomass Supply to West Offaly Power Station

As noted above, initially the biomass to the power station will primarily be sourced from indigenous and international sources.

Indigenous biomass would typically be sourced from forestry operations within a 100km radius area from the station but deliveries outside this distance can also occur where it is commercially viable to do so. Biomass will also be sourced from the Irish sawmill industries and from the agricultural sector.

The international biomass would arrive at either Greenore, Foynes, Dublin Port or possibly Killybegs. It would then utilise the national road network to travel to the power station.

The general supply sources from indigenous biomass and supply routes for international biomass delivery sources are detailed on Error! Reference source not found.



**Figure 12-4: Supply Routes in Local Area**

In proximity to the WOP Station this results in two routes for the deliveries from the east (Greenore and Dublin Port). These are shown in **Figure 12-4**.

One of these routes would continue along the M6 until Junction 14 (Ballinasloe) and then take the R357 to travel to Shannonbridge. Delivery vehicles entering from this direction would utilise the main access within Shannonbridge to enter the site but would typically exit via the BnM site access (this is to reduce the turning movements within Shannonbridge village centre). Traffic from this direction could also pass through Shannonbridge without turning at the main entrance junction and then access the station via the Bord na Móna works access.

The other route would turn off the M6 at Athlone and use the national secondary route, N62, and continue along this road until Cloghan. At Cloghan it would turn at the junction of the N62/R357/Hill Street and continue along the R357 to Shannonbridge. Delivery vehicles from this direction would enter the power plant using the BnM works access and similarly would typically exit the power plant using the BnM works access.

In the proximity of the WOP there will be two routes for deliveries from the west (Foynes Port).

One of these routes would use the M6 and turn off at Junction 14 (Ballinasloe) and take the R357 to travel to Shannonbridge. Delivery vehicles entering from this direction would utilise the main access within Shannonbridge to enter the site but would typically exit via road used by BnM for site access. Traffic from this direction could also pass through Shannonbridge without turning at the main entrance junction and then access the station via the south eastern road.

The other route would travel along the N52 to Birr, then turn onto the N62 just north of Birr. It would then continue along the N62 until Cloghan. At Cloghan it would turn at the new signalised junction and continue along the R357 to Shannonbridge.

Delivery vehicles from this direction would enter the power plant using the BnM works access and exit the power plant using the BnM works access.

In proximity to the WOP this results in two routes for the deliveries from the north (Killybegs). These are shown in Figure 12-4.

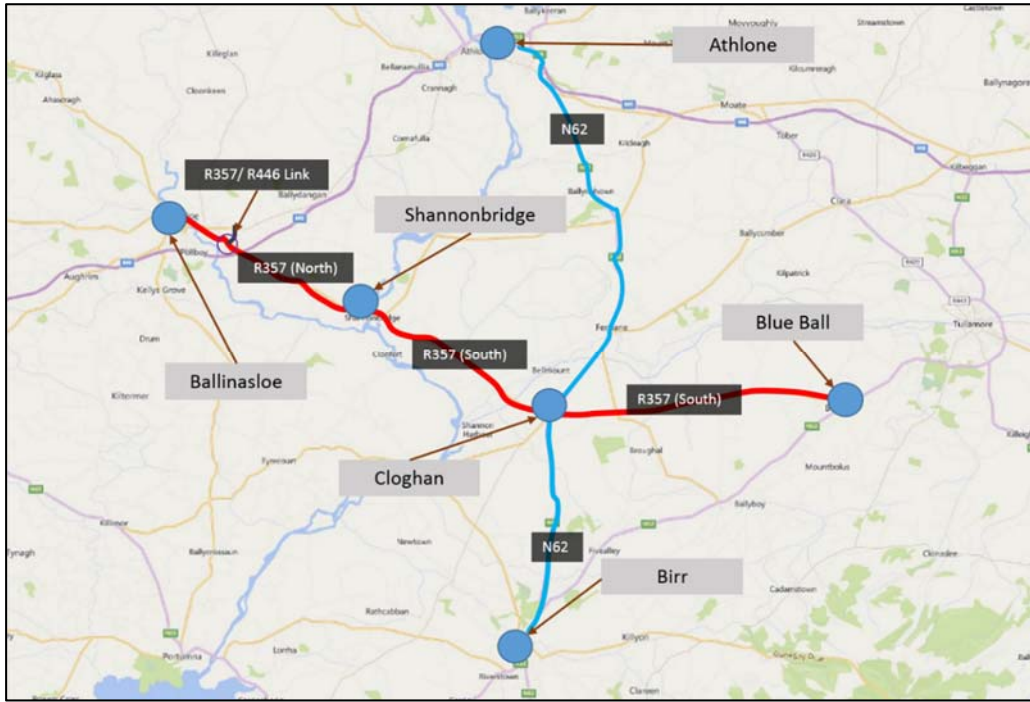
The route from Killybegs would use the N56, N15, N4 and then follow the N61 until Athlone. At Athlone it would connect to the M6 and can either continue along the M6 until Junction 14 (Ballinasloe) and then take the R357 to travel to Shannonbridge. Delivery vehicles entering from this direction would utilise the main access within Shannonbridge to enter the site but would typically exit via the BnM site access (this is to reduce the turning movements within Shannonbridge village centre). Traffic from this direction could also pass through Shannonbridge without turning at the main entrance junction and then access the station via the south eastern road.

Alternatively, the route from Killybegs would be off the N6 at Athlone and use the national secondary route, N62, and continue along this road until Cloghan. At Cloghan it would turn at the new signalised junction and continue along the R357 to Shannonbridge. Delivery vehicles from this direction would enter the power plant using the BnM works access and similarly would typically exit the power plant using the BnM works access.

Apart from the R357 and the regional roads that access the ports all the routes used by the international biomass deliveries would be along Motorway, National Primary or National Secondary routes. Indigenous supplies will use other roads at the start of their journey, but will join the onto the national road or regional road network as soon as practical.

## 12.5 Receiving Environment

Figure 12-5 below shows the key roads and elements of the receiving environment near the WOP. A brief description of these roads and infrastructure are noted below:



**Figure 12-5: Key Roads in Receiving Environment.**

The access arrangements in the vicinity of the WOP are detailed on **Figure 12-6**.



**Figure 12-6: Access arrangements to WOP**

### 12.5.1 R357 (North)

The R357 is a regional road that runs from Ballinasloe through Shannonbridge and Cloghan to Blue Ball. The R357 (North) runs from Ballinasloe to Shannonbridge. It is a single carriageway with a speed limit of 80 km/h. In the village of Shannonbridge the speed limit is 50 km/h. It maintains a single carriageway in the village. There is on street parking in the village and footpaths on either side of the street, refer to **Figure 12-7**. The footpath network within the town connects to the WOP Station.

Offaly County Council are currently undertaking urban street improvement works along this street.



Figure 12-7: R357 in Shannonbridge

### 12.5.2 Shannonbridge Bridge

The R357 crosses the River Shannon using a one-way bridge, this bridge is shown in **Figure 12-8** below. The bridge operates using a stop-go system with traffic lights at either side. Pedestrians who wish to use the bridge are required to share the roadway with vehicular traffic as there is no pedestrian facilities on the bridge.



Figure 12-8: Shannonbridge bridge crossing

### 12.5.3 R357 (North) / R446 (Link) Junction

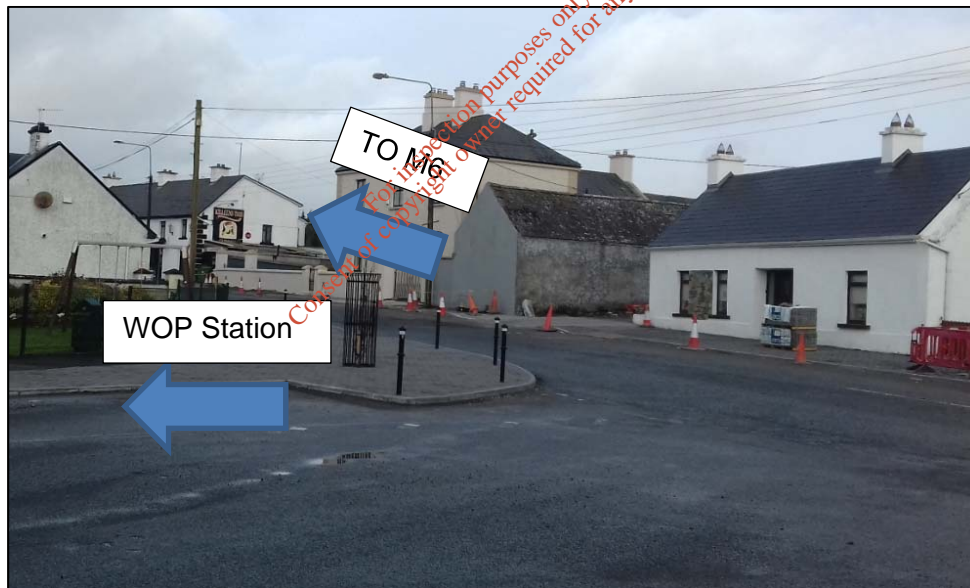
The Ard Carn Roundabout is located on the R357 southeast of Ballinasloe. It connects the R357 with a link road to the R446 regional road and the link road to Junction 14 of the M6. It is a standard roundabout with 4 arms. The roundabout has recently been constructed and has been designed to Design Manual for Roads and Bridges (DMRB) standards.

### 12.5.4 Junction 14 of M6

Junction 14 provides access to the M6 for the area. It's a standard dumbbell motorway interchange and has been designed and constructed to DMRB standard.

### 12.5.5 WOP Station Main Entrance

The WOP Station is accessed from the R357 by a priority junction in Shannonbridge, see **Figure 12-9**. Improvement works have recently been completed on the junction. There is now only one exit lane and the footpath has been built out, improving pedestrian facilities.



**Figure 12-9: Main entrance junction to WOP**

### 12.5.6 R357 (South)

The R357 (South) extends from Shannonbridge through Cloghan towards Blue Ball where it links with N52. It is a regional road with a speed limit of 80km/h. It is a single carriageway road of approximately 7.0m in width, this is shown in **Figure 12-10**.



**Figure 12-10: R357 south of WOP**

In the village of Cloghan it has a speed limit of 50 km/h. It maintains a single carriageway through the village. Within the village of Cloghan there is on street parking and footpaths on either side of the road.

### 12.5.7 BnM Works Access

Work Access to the West Offaly Power Station is provided from the R357 south of Shannonbridge. It is a simple priority junction of varying width of 5-6m, located outside of the 50 km/h zone of Shannonbridge and within the 80 kph speed limit area. The junction of this road with the R357 is shown in **Figure 12-11**.



**Figure 12-11: BnM Works Access Junction**

### 12.5.8 N62 / R357 Signalised Junction (Cloghan)

The N62 / R357 junction is located in Cloghan. Work on this junction has recently been completed. The works involved converting the junction from a roundabout to a signalised junction. Traffic lights were not yet operational when Atkins undertook a site visit however they are anticipated to be operational prior to the proposed commencement of the works detailed by this EIAR. The new signalised junction is detailed on **Figure 12-12**.



**Figure 12-12: New signalised junction in Cloghan**

### 12.5.9 N62

The N62 is a national secondary road that runs from Athlone, Co. Westmeath south towards Birr, Co. Offaly. It is a single carriageway with a speed limit of 100km/h. It passes through several towns and villages of Ferbane, Ballynahown and Cloghan. It links up with the R357 (South) in Cloghan and the N52 just north of Birr.

### 12.5.10 Bord Na Mona Rail Network

**Figure 12.3** details the private rail network used by Bord Na Mona to deliver peat to the WOP Station. This rail network is independent from the main road network noted above. There is only one location where the rail network crosses (i.e. level crossing) the N62 and this is located just south of Cloghan.

There is also a level crossing on the R357 to the east of the Cloghan.

## 12.6 Impacts of the Development

### 12.6.1 Traffic and Transport Assessment

As identified at the beginning of this chapter a TTA has been undertaken for the proposed development, see **Appendix 12.2**. This TTA details the additional traffic that will be generated by the proposed development and the impact that this will have on the surrounding transport network. The TTA also assesses the impact of the Operation phase and the Construction phase of the station on the surrounding network. The TTA includes an impact assessment of the WOP Station, the ADF and both the Peat Supply and Biomass Supply.

Within the TTA the % increase in the Ratio of Flow to Capacity (RFC) of the key roads and junctions impacted by the WOP Station has been calculated.

**Table 12-1** has been used to determine the significance of the % increase in flow to capacity. This table has been developed for use on this project by Atkins.

**Table 12-1 Significance of increase in flow capacity**

% Change	Significance of Change
<1%	Imperceptible
1 – 5%	Not significant
5 – 10%	Slight
10 – 20%	Moderate
20- 30%	Significant
30- 50%	Very Significant
50+%	Profound

The following sections identify the key findings of the TTA in terms of the traffic and transport impacts anticipated as a result of the proposed development.

### 12.6.2 Construction Phase – West Offaly Power Station

The main construction element for this planning application will be the construction of concrete slabs and a silo for the station. These slabs could be constructed either using a ground bearing slab or a piled slab.

The construction period is anticipated to take six to nine months. In terms of traffic the ground bearing slab options will create more construction traffic than the piled option.

During the construction phase the station and the ADF will be operational. Based on information provided by ESB, it is anticipated that the additional traffic generated during the construction phase will be approximately 46 – 56 vehicles per day, and on average 100 two-way vehicle flows per day.

Heavy vehicles during the construction period will access the site using haulage routes from the R357, the M6 and the N62.

This construction traffic will result in a 1.1% increase in the ratio of flow to capacity (RFC) on the R357.

The combined impact of the ongoing operational phase (refer to section 12.6.3) and construction phase on the ratio of flow to capacity of the R357 will be less than 5% increase in the RFC.

The Construction Phase will have a **not significant negative short-term impact** on the road network.

Accordingly, there is no requirement for any restrictions in deliveries during the construction period.

### 12.6.3 Operational Phase – West Offaly Power Station

With reference to the TTA, it is anticipated that the transition to biomass will result in the following traffic generation for the power station:

- Staff, non-fuel deliveries, visitors etc. – 199 movements per day.
- Average HGV deliveries of biomass/peat – 100 deliveries per day.
- 95 percentile HGV deliveries of biomass/peat – 129 HGV deliveries per day.

Some of these movements are already occurring on the road network, but they will all be additional to the baseline scenario, i.e. the closure of the WOP Station. For example, the 199 movements associated with staff and non-fuel deliveries is an existing movement. There are also some existing HGV movements associated with fuel deliveries.

For the purposes of this assessment, the 95th percentile traffic generation numbers have been utilised in the assessment. The 95th percentile means that 95 percent of the time the daily number of deliveries will be 129 HGV deliveries or lower.

These deliveries will arrive between the hours of 07:00 – 23:00, a 16-hour period.

ESB and BnM have estimated that the 95th percentile hourly delivery flow will be 15 HGV deliveries per hour or lower, and that the 97.5% percentile will be 20 HGV deliveries or lower. This number of hourly deliveries may occur due to sporadic issues such as icy weather or traffic delays or machinery issues. These are not anticipated to be standard operation, but this flexibility is required to permit the station to meet its operational demand.

The previous EIS (February 2001) outlined an average number of deliveries by road of per day and a maximum number of 74 per day. Comparing the proposed application to the existing operation, means that on average there will be 26 additional HGV deliveries by road.

The impact of these additional HGVs on the capacity of the surrounding roads and junctions has been assessed within the TTA. The increase in the ratio of flow to capacity for each of the key roads is summarised in **Table 12-2** below, this table

shows the Annual Average Daily Traffic (AADT) flow of the main road links. It presents the increases compared to the no development scenario, so it treats the existing movements associated with staff as additional movements.

**Table 12-2: TTA % increase in flow capacity**

Link	2017 AADT	Additional traffic (vehicles) compared to No Development	AADT of Level of Service D	% of increase in Flow to Capacity compared to No Development
M6	14,244	312	44,100	0.7%
M7	18,902	52	44,100	0.1%
M18	9,466	206	44,100	0.4%
N18	29,739	206	44,100	0.4%
N52	3,906	86	8600	1%
N62	4,700	86	8600	1%
R357(North)	1,902	338	8600	3.9%
R357(South)	1,902	172	8600	2%

The impact of this additional traffic on the surrounding junctions was assessed within the TTA. The following **Table 12-3** summarises the percentage increase on the surrounding junctions.

**Table 12-3: TTA % increase at junctions**

Time period	Ard Carn Roundabout (Site 3)	WOP Station Access / R357 junction (Site 4)	BnM Work Access /R357 junction	R357/N62 (Site 11)	Shannonbridge Bridge
8:00 - 9:00	8.75%	31.2%	26.5%	2.5%	34%
17:00 - 18:00	6.7%	23.4%	18.0%	2.1%	25%

In accordance with the TII’s guidelines (Traffic and Transport Assessment Guidelines (2014)) more detailed junction analysis was undertaken on all junctions where the increase in traffic was anticipated to be greater than 10%. In addition to this, capacity analysis was undertaken on the shuttle system on the bridge in Shannonbridge.

This analysis demonstrated that all the junctions and the bridge in Shannonbridge would continue to operate satisfactorily within capacity for all the “with development scenarios”.

As the additional traffic generated by the proposed development at the WOP Station will not result in an increase in the ratio of flow to capacity greater than 5% on the R357, it will have a **not significant negative long-term impact** on the local road network.

The proposed development will result in 1% or less than 1% increase in the ratio of flow to capacity on the national road network, it is concluded that it will have **an imperceptible long-term impact** on the wider national road network.

There is one location where the road level crossings by the rail deliveries could interact with the delivery traffic assessed above; this is located on the N62 just south of Clogran. This section of the N62 is operating well below its capacity and the cumulative impact of the level crossing and the additional delivery traffic will still be within acceptable levels.

Tourist traffic during the summer months will result in increases in the baseline traffic flows in the area, however all the roads within the study area are operating well below carrying capacity and should have sufficient capacity to accommodate these increases.

#### 12.6.4 Construction Phase – ADF

Landfill cell construction is an ongoing activity at the ADF with a cell being developed as another cell approaches capacity and traffic movements are the same as for the operational phase.

The construction of the ADF will have an **imperceptible negative short-term impact** on the transport network.

#### 12.6.5 Operational Phase – ADF

The ADF will continue to employ 2 no. full-time staff and the volume of traffic generated by the ADF will be very low and will have no impact on the road network. The ADF will have an **imperceptible negative long-term impact** on the transport network.

#### 12.6.6 Decommissioning Phase

At the end of the life of WOP Station, a decommissioning process would take place to restore the site to a similar state to that which it was in before the station was constructed.

Any haulage routes to/from the station during the decommissioning phase will utilise the R357 and the national primary or national secondary routes.

For the decommissioning of the ADF, the landfill will be closed and there will be no new deliveries. There will be some periodic visits required to undertake environmental monitoring at the ADF.

The decommissioning process is likely to generate similar traffic flows to the construction phase and it is anticipated to have a **not significant** impact on the transport network.

### 12.6.7 Peat Supply to WOP

In terms of traffic, the impact of the WOP Station results in HGV movements from a number of peat supply bogs. There are existing HGV movements to the WOP from these peat supply bogs.

Compared to the baseline scenario, these HGV movements result in small increases in traffic movements on local roads outside of the Study Area of the WOP power plant. These traffic movements result in minor increases in the ratio of flow to capacity of these roads and result **imperceptible negative long-term impacts** on the transport network in the vicinity of these peat supply bogs. As the volume of peat delivered to the station decreases this volume of traffic will also decrease.

### 12.6.8 Biomass Supply to WOP

In terms of traffic, the impact of the WOP Station results in HGV movements from several ports and from a range of indigenous providers of biomass.

These HGV movements result in small increases in traffic movements on local roads outside of the Study Area of the WOP Station.

The largest impact will be on the access routes to/from the ports (Killybegs/ Dublin Port / Greenore and Foynes). Dublin Port and Foynes ports are part of the TEN-T network and have or will have motorway or expressway connections. Given the high capacity of these links, the WOP Station will have an **imperceptible negative impact** on these access routes.

The access routes to/from Greenore and Foynes are regional single carriageway roads and in terms of increases in the RFC the proposed development will have its largest impact on these access routes where depending on the scheduling of the deliveries it could result in an increase in the RFC of these access routes by 3%. This would result in a **not significant negative long-term impact** on this section of the access routes to/from Greenore and Killbegs.

There will also be small increases in traffic on some local and regional roads closer to the suppliers of some of the indigenous suppliers of biomass. These movements will be very low and will have a not significant negative long-term impact on these roads.

### 12.6.9 Do-Nothing Scenario Impact

In the do-nothing scenario, the traffic movements currently recorded at the power station will no longer be on the local road network. Based on the traffic count surveys undertaken, this would result in a reduction of circa. 250 vehicle movements per day on the road network, of which approximately 50 will be HGVs and the remainder will be cars and other light goods vehicles. This would have a **not significant positive impact** on the local road network and an **imperceptible long-term impact** on the wider road network.

There would be some additional traffic associated with the decommissioning and demolition of the station. These additional movements would consist of HGVs, primarily with material from the demolition of the power station and movements of staff associated with the demolition crew. These movements would occur over a one to two-year period.

## 12.7 Mitigation

A Delivery Management Plan (DMP) has been prepared to manage the routing of delivery traffic, see **Appendix 12.3**.

As part of this DMP a route preference assessment has been undertaken. The objective of this route assessment is to maximise the use of the motorway network and then the national road network for deliveries, to minimise the impact on local populations, to minimise impact on schools and maximise safety.

The DMP will be used to encourage and monitor responsible driving behaviour and safe driving habits by the suppliers of the biomass and peat.

The key requirements of the DMP are as follows:

- ESB will appoint a Delivery Manager.
- The Delivery Manager will monitor deliveries.
- Fuel deliveries to WOP will be via clearly identifiable WOP delivery vehicles, where practical.
- A complaints procedure will be implemented.
- All delivery vehicles will be tracked utilising GPS technology or alternative means of tracking.
- The Delivery Manager will produce an annual monitoring report.

A Workplace Travel Plan Statement is also required to encourage sustainable travel to WOP Station.

## 12.8 Difficulties Encountered in Compiling Information

The variability of the sources of indigenous biomass fuel supply meant it was difficult to determine the exact future distribution of HGV traffic to the WOP Station. As it originates from multiple sources as shown on **Figure 12.4** it will utilise the national

road network to deliver biomass to WOP Station and would converge onto the same delivery routes as discussed above.

## 12.9 Residual Impacts

The mitigation measures noted above may slightly reduce the impact of the traffic generated by the proposed development, however the increase in traffic generated will not be reduced.

Based on the assessment above, it is anticipated that the proposed development will have the following impacts:

In the Construction Phase of the WOP, it will have a **not significant negative short-term impact** on the road network.

In the Operational Phase of the WOP, it will have a **not significant negative long-term impact** on the local road network, and an **imperceptible long-term impact** on the wider national road network.

The construction of the ADF will have an **imperceptible negative short-term impact** on the transport network and the operation of the ADF will have an **imperceptible negative long-term impact** on the transport network.

The decommissioning process is likely to generate similar traffic flows to the construction phase and it is anticipated to have a **not significant** impact on the transport network.

## 12.10 Cumulative Impact

The cumulative impact of the proposed development and other existing and/or approved developments in the area was assessed by taking into account the existing baseline environment and the predicted impacts of this and other approved developments in the area.

The cumulative impact of the proposed development has been assessed and the impact has been outlined above in relation to the WOP peat supply bogs. The cumulative impact of BnM workforce travelling to depots and peat bogs will have already been captured and included within the baseline traffic flows.

The permitted development (energy storage (battery) facility at Lumcloon (Planning Reference PL2/17/1728) has been reviewed. The traffic associated with this proposed development will be very low and there will no perceptible difference in the cumulative impact compared to the operational phase impact.

The Edenderry Power station (EPL) currently utilises peat and biomass to provide power and it is likely that EPL and WOP will source biomass from the same suppliers. When biomass is delivered via the ports, the delivery traffic is likely to share the same routes on the national road network but will not share the same local or regional road network. EPL could generate up to 68 truck movements per a day (Source: Edenderry Power station EIS). Some of the truck movements associated with EPL

are already included within the baseline traffic counts. The cumulative impact of EPL and WOP Station could result in increases in the RFC on sections of the national road of 0.77%.

EPL and WOP Station share some of the same peat supply bogs and deliveries of this peat to EPL and WOP may share some sections of road network close to the supply bogs. The cumulative impact of these deliveries will have a not significant, negative impact on these shared sections of road network.

The Lough Ree Power (LRP) Station will also be subject to a planning application in relation to the transition of the station from peat to biomass. The biomass may be sourced from the same suppliers as WOP and EPL, these deliveries are likely to share the same routes on the national road network but will not share the same local or regional road network. The cumulative impact of LRP station, EPL and the WOP Station could result in increases in the RFC on sections of the national road network of 1% and could result in approximately 5.5% increase in traffic on the regional roads that access Killybegs and Greenore ports. This would result in a not significant, negative impact on the national road network and a slight negative impact on the regional roads that connect Killybegs and Greenore ports to the national road networks.

There are also some supply bogs that supply LRP, EPL and WOP and deliveries of this peat to LRP and WOP may share some sections of road network close to the supply bogs. The cumulative impact of these deliveries will have a not significant negative impact on these shared sections of road network.

Bord na Móna also harvest peat for other end uses (e.g. horticulture). Third-party harvesting of peat also occurs on bogs throughout the Midlands, ranging from small scale turbarry for domestic fuel to commercial scale peat removal for horticultural purposes. The traffic associated with this harvesting of peat is contained within the baseline traffic flows.

## 12.11 References

The following documents are referenced in the production of this section of the EIAR and the accompanying documents.

- TII's Traffic and Transport Assessment Guidelines (2014)
- TII's Project Appraisal Guidelines
- TII's DMRB TD 9/07
- TII's PE-PAG-02039
- TII's TMU counters (<https://www.nratrafficdata.ie>)
- Edenderry Power station – EIS