

Chapter 9

Material Assets

9.1 Introduction

This section of the EIS discusses the impact of the N9 Kilcullen to Powerstown Scheme on Material Assets. The Material Assets that are relevant to this scheme are Property and Land Use.

A road construction scheme may affect assets if it involves any of the following:

- Acquisition of land,
- Demolition of buildings,
- Revaluation of or change in the development potential of adjoining lands / properties.

The principal land use within the scheme area, apart from urban development, is agriculture. Construction of the N9 Kilcullen to Powerstown Scheme would require the acquisition of agricultural land, and residential, commercial and recreational properties, as detailed in the sections below. Figures 9.1 to 9.23 (Volume 2) show the land uses affected by the scheme.

Within this Chapter of the EIS, the effect on the material assets or parts of the material assets that would be acquired as part of the scheme is described. This section does not repeat the information relating to the Natural Environment contained in Chapter 7, or Landscape in Chapter 8. These other chapters should be read in conjunction with this chapter.

9.2 Agriculture

9.2.1 Introduction

This section (9.2 Agriculture) is a study of the impact of the construction of the N9 Kilcullen to Powerstown Scheme on agricultural assets.

The proposed road follows a completely new alignment for 57.5 kilometres (including the Athy to R747 Link Road) and traverses mainly agricultural land. The new road will pass through 18 District Electoral Divisions (DEDs) in County Kildare and 12 DEDs in County Carlow, and it will directly affect in excess of 150 farms by either removing land or severing them. The area to be removed from agricultural production is approximately 450ha.

Individual agricultural impact assessments were undertaken for each agricultural holding affected by the proposed route. These assessments provided a basis for an overall assessments of agricultural impact, which is described in the following sections. Table 9.6 outlines agricultural details for each holding.

9.2.2 Methodology

An assessment of the existing agricultural situation was carried out through a detailed walk-over inspection of the majority of farms affected by the road scheme. The landowners where possible were interviewed and details recorded of their farming activity. The surveys assessed how the proposed scheme would affect current farming activities and what mitigation measures would be necessary to alleviate any effects. In addition, an equestrian specialist, Mr. Michael Osborne,

visited 6 farms along the alignment where equestrian enterprises were the major activities or a significant activity on these farms.

Consultations were undertaken as follows:

- Individual Farm Interviews including equine enterprises,
- Discussions with regional representatives of Glanbia,
- Special Interest Organisations e.g. The Golfing Union of Ireland, Golf Club Ireland, The Irish Field and County Sports Society and the International Equine Institute,
- The Irish Tourist Board,
- The Environmental Protection Agency which provided information in relation to I.P.C. licensing granted within the study area,
- Central Statistics Office.

Degree of Impact

The degree to which a new road affects an individual farm depends on:

- Farm size;
- Land take;
- The degree of severance;
- The type of farm enterprises carried out;
- Removal of buildings and / or facilities.

The significance of effects of the proposed road on farms has been assessed using the criteria presented in Table 9.1 developed for this scheme, but based on the Environmental Protection Agency (EPA) “Guidelines on the Information to be contained in Environmental Impact Statements” (March 2002).

Table 9.1 Significance of Effects on Farms of the Proposed Scheme

EPA Glossary of Impacts	Significance Level (EIS)	Criteria
Profound or Significant Impact: Negative Only	Severe	Severe impact occurs where the farm enterprise cannot be continued as a result of the proposed scheme. This would occur where land-take was of such a scale that the remaining land would not form a viable unit or where severance was of such a nature to make the holding unworkable or where important farm buildings and facilities were removed and could not be replaced. Impact of this degree would be most likely to occur on a dairy or stud farm.
Significant Impact: Negative	Major	Major impact occurs where the farm enterprise cannot be continued without considerable management or operational changes. This would typically occur where the farm was split in two due to the severance but where access between the severed portions and the farm buildings could still be achieved effectively. Typically where the impact is major an enterprise change would be necessitated e.g. from dairy to drystock.

Table 9.1 Significance of Effects on Farms of the Proposed Scheme (contd.)

EPA Glossary of Impacts	Significance Level (EIS)	Criteria
	Moderate	Moderate impact occurs where the farm enterprise can be continued as before but with increased management or operational difficulties. While portions of the land would be severed the enterprise mix would be such that the farming system could continue perhaps with additional labour or contractor charges or other changes.
	Minor	Minor impact occurs where the farm enterprise suffers inconvenience as a result of the proposed scheme. Severance would not occur and the farm buildings and facilities would be left in place. Typically only a small portion of land would be removed at the boundary of the farm.
Neutral, Imperceptible or Slight Impact	Not Significant	An impact is not significant where the farm enterprise suffers a slight inconvenience.

Degree of Severance

The degree of severance of a farm has been classified as follows:

- **Major severance** – farms are characterised by the new road splitting the farm more or less in two.
- **Moderate severance** – farms where a significant portion of the farm is separated from the rest by the new road.
- **Minor severance** – farms are characterised by having a relatively small portion of the holding isolated by the new road, or where the new road runs along one side of the farm on the inside of its boundary.
- **None** – farms are characterised by having no portion of the holding isolated, however the farm will experience land take because of the development.

Enterprise Type

Dairy farms and other livestock farms where stock have to be moved on a daily basis will be most severely affected by any severance of the farm by the proposals. A reduction in the areas available to the dairy herd for grazing due to the farm severance can often mean a reduction in dairy cows and stock on the farm. The reduction in stock numbers or the extra difficulties involved in moving stock between two separate land parcels may in some cases reduce the viability of the enterprise.

Stud farms can also be severely impacted by new road schemes, as equine stock are of a more nervous disposition than other stock types and are prone to stress caused by irregular noise and moving vehicles. Such stress may render individual land parcels unsuitable for grazing equine stock. In some cases fields left in an irregular shape (e.g. triangular shaped fields, fields with sharp / narrow corners) may also be unsuitable for grazing with equine livestock.

Drystock enterprises (e.g. beef, sheep) are less severely impacted as these animals are more placid by nature and are not usually moved on a daily basis. Tillage farms are also less severely impacted than dairy or stud farms as

machinery can readily move from one land parcel to another. Fields may be less regularly shaped and more awkward to till but can still be workable.

9.2.3 The Receiving Environment

In assessing the effects of the new road on agriculture, it is useful to compare the general agricultural activity at a national and county level with that of the area immediately affected by the development. This indicates if there is any unusual agricultural production of a significant level taking place along the route of the N9 Kilcullen to Powerstown Scheme.

Agriculture in Counties Kildare and Carlow

Counties Kildare and Carlow have a total Utilisable Agricultural Area (U.A.A.) of 122,963 hectares and 77,916 hectares respectively (CSO Census of Agriculture, June 1991). In Kildare there are 3,251 farms of over 1 hectare in area and 2,130 in Carlow. The average farm size in Kildare County is 37.8 (U.A.A.), and Carlow 36.6 (U.A.A.), with both averages being greater than the national average farm size of 26.0. (U.A.A.). There are 6,769 persons involved in agriculture in Co. Kildare and 3,139 persons in Co. Carlow.

Cereals and other arable crops are significant enterprises in Kildare and Carlow. Total Cereals represent 27% of farms in Kildare and 37% in Carlow. Grassland based livestock farming is very important in Kildare and Carlow. Some 2630 (81%) farms in Kildare and 1630 (77%) of farms in Carlow have permanent pasture, which supports dairying and / or other livestock enterprises (principally the drystock enterprises of beef and sheep). A total of 470 farms in Kildare (14% of total) and 380 farms in Carlow (17% of total farms) are dairy farms.

The area has the lowest uptake of the Rural Environment Protection Scheme (REPS) in the country, at 26.6% (reference Laffety et al 1999). This reflects the high percentage of intensive farmers and the high soil qualities.

Agriculture Along the Proposed Route

The proposed scheme traverses mainly agricultural land and will directly affect in excess of 200 farms by either severing them or removing land.

The new road will pass through 30 District Electoral Divisions in the counties of Kildare and Carlow. The topography ranges from flat to undulating land. Agricultural use of land along the route is comparable to that within both Counties.

Soil Types

The soils of Ireland are classified in the Soil Association Map of Ireland (Gardiner & Radford, Explanatory Bulletin to Soil Map of Ireland, An Foras Taluntais 1980). The soil types along the route are typical of five particular soil associations. All of the area has the benefit of highly fertile soils and is a highly productive agricultural area. Their characteristics are as follows;

Soil Type 22 – Gleys 75%, Acid Brown Earths 15%, Peats 10%

These soils have a limited use range. Owing to their adverse physical properties they are generally unsuitable for tillage. With drainage and lime and fertiliser use, they have a potential for grass production, but management must be of higher order if worthwhile returns are to be obtained.

Soil Type 30 – Grey Brown Podzolics 70%, Brown Earths 20%, Gleys 5%, Peats 5%

The topography of this association varies from flattish to gently undulating. With the exception of the poorly drained component, which is mainly suited to summer grazing, this association has a moderately wide use range. The soils are suited to the production of a wide range of farm, fruit and vegetable crops. They are very easily tilled and are widely devoted to the production of cereals, including barley and sugar beet.

Soil Type 34 – Minimal Grey Brown Podzolics 70%, Gleys 20%, Brown Earths 10%

These soils have a wide use range. Owing to their depth, free drainage, medium texture and good moisture holding capacity, they are first class grassland soils. Although more noted for grass production, they are also good tillage soils and are suitable for cereals and root crops. However they tend to have a tilth problem. The associated poorly drained Gley soils can be drained if a suitable out fall is available. They are then suitable mainly for grassland but to some extent for tillage.

Soil Type 35 – Grey Brown Podzolics 80%, Brown Earths 10%, gleys 10%

These soils have a moderately wide use range. With their light to medium texture, good structure and friability they are easily tilled. Where properly manured, especially with potassium, excellent yields of malting barley, wheat, sugar beet, swedes and other crops can be obtained. They are also highly suited to grass production in the form of short-term leys and are used intensively for sheep production in particular.

Soil Type 39 – Gleys 90%, Grey Brown Podzolics 10%

Because of their poor drainage, these soils have a limited use range and are suited mainly to pasture. Susceptibility to poaching is a problem and good management is necessary to sustain maximum production. If a suitable outfall can be obtained they can be successfully drained. This soil type is of a medium to heavy texture and can be prone to waterlogging.

Current Farming Enterprises

Table 9.2 presents the categories of farming enterprises in the DEDs through which the N9 Kilcullen to Powerstown Scheme will pass. The table also indicates how agriculture in these DEDs compares with the national percentages for each enterprise category. Figures are based on the Agricultural Census completed in 1991. These are the latest figures available from the Central Statistics Office for DEDs.

Table 9.2 The Number and Percentage of Farmers Classified by Farm Type within the Affected DEDs in Kildare and Carlow compared to the National Percentage (CSO 1991)

Farm / Enterprise Category	No. of Farmers within Farm Category*	Percentage of Total Farmers in Each Category	National % of Farmers in Each Category
Specialist Dairy	140	15%	24%
Specialist Beef Production	180	20%	41%
Specialist Sheep Production	100	11%	9%
Mixed Grazing Livestock	180	20%	18%
Specialist Tillage	190	21%	3%
Mixed crops & Livestock	120	13%	3%
Total	910	100%	100%

* The number of farmers are shown to the nearest ten

The table indicates that specialised tillage enterprises predominate at 22% in the DEDs, which is far greater than the national percentage of 3%. The percentage of dairy farmers (15%) is slightly less than the national average (24%), with more emphasis being given to mixed grazing (20%). One feature that should be noted is the lower figure for specialist beef production in this area at 20%.

In line with this it should be noted that the disruption caused to farms by new roads is likely to be greater on stud and dairy enterprises than on other enterprise types. In particular dairy farms, which are severed by roads find it more difficult to recover than other traditional type enterprises.

Current Farm Size

Table 9.3 shows the farm sizes within the affected DEDs.

Table 9.3 The Number of Farms Classified by Farm Size within Affected DEDs (CSO 1991)

Farm Size	No. of Farms*	% of Farms	National %
<10 Hectares	220	21%	11%
11 – 20 Hectares	160	15%	25%
21 – 30 Hectares	140	13%	20%
31 – 50 Hectares	210	20%	19%
51 – 100 Hectares	270	25%	11%
>100 Hectares	60	6%	3%
Total	1060	100	100%

* The number of farms are shown to the nearest ten

Table 9.3 shows that in general farm size within the affected DEDs deviates from the national figures, as there are relatively few medium sized farms. However there are high percentages for very large and very small holdings. There is a relatively high percentage of farms under 10 ha in the D.E.D.s (21%) compared with the national average (11%). This would indicate that a relatively high number of landowners will be affected by the route when compared with a route of similar length elsewhere. However many of these are likely to be part-time farmers or have farms rented out, and therefore would be less intensive than larger full time

holdings. As these farms would be remotely farmed and in a lot of cases without the use of its own farm buildings, there would be a reduced impact on agricultural production.

The average farm size for the two affected counties (31 – 50 hectares) is above the national average (11 – 20 hectares). Table 9.3 also shows that there are also a greater number of farms between 50 – 100 hectares of land in the region. These categories of farmers are most likely to be viable into the future. Declining returns in farming per hectare, as is the trend in almost all enterprises will mean that in the future only the farmers that have access to larger land holdings will be capable of making a full time living from farming. As a consequence of this a proposed road in the region is likely to impact on the future viability of a number of farms.

On some farms of smaller size, farming families often have an efficiently run farm enterprise combined with off farm income supporting their lifestyle. Invariably farms that are severed by roads suffer from decreased efficiency in the use of a part time farmer's time irrespective of what enterprise is involved.

Current Crop Production

Table 9.4, shows the crop types being cultivated within the affected DED's.

Table 9.4 Crop types within the affected D.E.D.s

	Area within D.E.D.s (ha)	% of Area under Crops and Pasture	% of National Area under Crops and Pasture
Total Cereals	12604	29%	7%
Other Crops, Fruit, Horticulture	3670	8%	2%
Total Pasture	16883	38%	51%
Total Hay	3872	9%	9%
Total Silage	5203	12%	17%
Rough Grazing in Use	1753	4%	14%
Total	43985	100%	100%

Of significance to note within the affected DEDs is that the percentage of land under cereal production at 29% is far higher than the national average of 7%. Again the percentage of land used to grow other crops (including sugar beet and potatoes), fruit and horticulture at 8% is greater in the affected DEDs than the national figure of 2%.

The percentage of land under pasture (38%) is below the national figure (51%). As such it can be expected that the new road will not have a particularly deleterious effect on the production of any one crop type.

9.2.4 Predicted Impacts

The impact of the proposed route on agriculture would be limited to the farms directly affected by the proposed scheme. The assessment examines the effects of the scheme in terms of the loss of agricultural land, the direct effects on individual farms and the general effects of the construction and operation of the road.

Loss of Agricultural Land

Nationally there are approximately 3,957,500 hectares of agricultural land (excluding rough grazing) of which 3,543,300 hectares are in grassland based enterprises and 414,200 hectares of cereal and non-cereal crop production. Counties Kildare and Carlow has a total Utilisable Agricultural Area (U.A.A.) of 200,879 hectares. Approximately 490ha of land, which equates to approximately 0.2% of the total agricultural land for both counties, will be lost to agricultural production as a result of the N9 Kilcullen to Powerstown Scheme. This loss, while significant to individual farmers, is not significant on a county or national level.

Individual Farm Impact

There are in excess of 200 farms directly affected by the new road. An agricultural consultant visited 150 of these landowners from September to December 2002 in order to:

- Conduct an appraisal of the farm facilities and layout, and
- Gather data via a questionnaire to enable an assessment of the impact and mitigation measures required as a result of the proposed scheme.

It was not possible to contact 6 landowners and the assessment was based on the farm inspection carried out. Three landholdings were not visited but were assessed by way of a roadside survey.

Farms were categorised according to the following criteria:

- Area of farm holding affected (ha);
- Enterprise type(s);
- Degree of severance (if applicable);
- Buildings/facilities to be acquired;
- New access facilities requiring provision;
- Degree of overall impact.

Table 9.5 presents a summary of the individual farm assessments and the anticipated effects of the new road on each farm.

Table 9.5 Summary of Individual Farm Assessments

Category	No. of Farms	% of Farms
<u>Farm Size (ha):-</u>		
<11	27	18
11 - 20	11	7
21 - 30	10	7
31 - 50	25	16
51 - 100	45	29
>100	19	12
Unknown	16	10
<u>Farm Enterprises:-</u>		
Beef	4	3
Dairy	12	8
Grazing	7	5
Horses	9	6
Leased Lands / Land is Set	27	18
Mixed Livestock*	16	10
Mixed Livestock and Crops**	55	36
Sheep	2	1
Tillage	17	11
Other***	4	3
<u>Level of Impact</u>		
Severe	0	0
Major	91	59
Moderate	23	15
Minor	33	22
Not Significant	6	4
<u>Degree of Severance:-</u>		
Major	55	36
Moderate	42	27
Minor	20	13
None	36	24
<u>Of those Majorly Impacted</u>		
Beef	2	2
Dairying	1	1
Grazing	2	2
Horses	6	7
Land is Set / Leased	15	16
Mixed Livestock	14	15
Mixed Livestock & Crops	39	43
Tillage	9	10
Sheep	1	1
Other	2	2
Access	112	73
Facilities to be acquired****	4	1.3%

* 2 farms within the Mixed Livestock Category have Horses

** 9 farms within the Mixed Livestock & Crops Category have Horses

*** 1 farm with Beef & plant nursery, 1 organic pig farm, 1 Football pitch – grasslands, 1 forestry

**** Removal of Sheds on 4 holdings

The degree of overall impact was considered and this indicates that there will be major adverse effects on 91 farms (59% of the overall farms), moderate adverse effects on 23 farms (15% of overall farms) and minor adverse effects on 33 farms (22% of overall farms). On 6 farms the effect will not be significant. Of the 91 farms, where the proposed scheme will have a Major adverse overall impact, it is considered that the farm enterprises will not be able to continue in their present form unless appropriate mitigation measures can be put in place or considerable management or operational changes take place. This is due to a combination of the level of severance created, the type of enterprise, farm size, land take and the effects on farm buildings and facilities.

- **The degree of severance** – From Table 9.5 it can be seen that 55 farms or 36% will suffer major severance where the scheme will split the farms more or less in two. 42 farms will suffer moderate severance where a significant portion of the farm is separated from the rest by the scheme. 20 farms or 13% will suffer minor severance where farms will have a relatively small portion of the holding isolated by the scheme. Finally 36 farms will experience no severance but will be touched by the development or will be affected by land acquisition.
- **The type of farm enterprises carried out** – From the Table 9.5 it can be seen that the enterprise with the highest percentage being carried out on the route of the proposed road is mixed livestock and crops, with 36% of holdings falling into this category. Enterprises where beef, sheep, dairying and cropping are practiced in unison, account for the majority of this figure. Nine farms within this category also have horses together with crops. The second highest number of farms are holdings where the land is set or lands are leased. Tillage farms where no other form of agriculture is practised accounts for 11% of the affected holdings. Dairying accounts for 8% of total farms, however the majority of dairy farms also practice beef farming or cropping hence they are included in the mixed livestock and crop categories. Stud farms account for 6% of the affected farms. As stated 9 farms with horses have been included in the mixed livestock and crop categories and 2 in the mixed livestock categories.

From the farms, which are majorly affected, the highest number is from the mixed livestock and crop category at 43%. 16% of majorly affected farms are leased lands and mixed livestock farms account for 15% of majorly affected holdings. Of significance is the fact that 9 Tillage farms, 6 enterprises with horses and 1 dairy farm are majorly affected by the proposed scheme.

- **Farm Size** – In relation to farm size, the summary table shows that it is the farms of over 30 hectares, which account for 57% of the affected holdings. Especially significant is the fact that 29% of the affected farms are between 51 and 100 hectares in size. 19 of the farms are >100 hectares which indicates that the affected holdings are large, most likely intensive enterprises. Farms less than 20 hectares account for 25% of those affected by the proposed scheme.
- **Land Take** – Approximately 490ha of land, which equates to 0.2% of the total agricultural land for both counties will be lost to agricultural production as a result of the N9 Kilcullen to Powerstown Scheme. This loss, while significant to individual farmers, is not significant on a county or national level.
- **Removal of buildings and / or facilities** – Three holdings along the route of the proposed road will have facilities removed. This does not apply to residences.

A summary is included in Table 9.6 showing details of individual farm assessments.

Construction Impacts

The main impacts on agricultural activity during the construction phase of the new road will be:

- Noise
- Dust
- Restricted access to severed land parcels
- Disturbance of drainage works

The nature of each of these specific impacts is as follows:

Noise

The activity of earth moving machinery, transport lorries and other ancillary vehicles will generate significant noise in the immediate vicinity of the road construction.

Noise will affect livestock, particularly dairy cows and horses. High levels of noise near milking parlours and holding yards may stress the cows and lower milk yields.

Likewise, horses have a somewhat more sensitive and nervous disposition than other livestock, and are prone to stress from unexpected sights and sounds. Such stress may manifest itself in breeding difficulties and general increased difficulty in animal husbandry due to excitable behaviour.

The dairy and stud farms that will be significantly impacted upon are particularly those where the yard and animal handling facilities are in close proximity to the construction works.

Dust

The proliferation of dust during construction has a nuisance value and, if produced in high volumes near milking parlours and on-farm bulk milk storage tanks, may constitute a risk as a source of contamination in the milk.

Livestock are at risk of eye irritations from high levels of wind blown dust particles. This stress may reduce productivity and increase management difficulties, especially on dairy and stud farms as outlined above.

Restricted Access to Severed Land Parcels

Access to severed land parcels will still be required during the road construction phase. It is to be expected that there may be some difficulties providing such access during this phase due to the need to allow machinery and equipment continual movement along the construction corridor. This will conflict with the farmers' requirements to move livestock from one part of the farm to another in order to fully utilise the grazing area.

Disturbance of Drainage Works

It is to be expected that field drainage systems currently in-situ will be disturbed and in places destroyed by the construction of the new road. These systems will need to be restored as part of the completed road works, but there may be impaired drainage in the period of time between initial disturbance and final reinstatement of such drainage works.

This damage may lead to wet or flooded fields during spells of wet weather, and in some cases farm productivity would be reduced if this occurs when animals would otherwise be grazing the land or when tillage machinery needs to work the soil. The impact would be reduced if drainage disruption occurs in the winter period, when animals will be housed and won't be directly affected and tillage operations are minimal.

Prolonged flooding would kill grass swards, which would then need to be re-sown.

9.2.5 Remedial or Reductive Measures

Construction Phase

Adhering to the following recommendations will reduce the impact on agricultural activities during the construction phase.

Noise and Dust

Good communication with farmers in the proximity of construction activities will facilitate organising farm enterprises so that vulnerable livestock are kept as far away as possible from the construction work during critical times.

In the case where dust may prove to be a hazard for milking facilities and storage tanks, mitigation measures can be discussed with each individual farmer to ensure non-contamination of milk.

Precautions should be taken by contractor to control noise. Precautions should be taken by the contractor to control vibration on and off site, particularly in the vicinity of housing and sensitive animals such as horses and dairy cattle.

Precautions should be taken by the contractor to prevent the spread of mud and dust onto public roads and adjacent lands, particularly in the vicinity of housing and sensitive animals such as horses and dairy cattle.

Provision of Access

As in the case of mitigation measures against noise and dust, good communication between construction authorities and the individual farmers will minimise difficulties caused by the restriction of access to severed land parcels. Such communication should produce a workable arrangement, which will allow all parties to continue their work in return for some compromise to other parties. There should also be proper termination of existing boundaries. Maintenance of open access to all landholdings and properties is required.

Temporary fencing will be erected as required to delineate the site boundary and to minimise disturbance to adjacent lands.

Drainage Disturbance

In cases where impeded drainage during construction is likely to cause obvious difficulty to a particular landowner, temporary measures should be taken to allow waters to drain to less critical areas and thus minimise the impact. It is also important that the Construction Engineers consult with relevant landowners regarding the exact location of land drains so these can be noted and remedial works carried out to ensure that these continue to function properly.

Soil Disturbance

Soils compacted during the works which are not an essential part of the road scheme should be deep tined, harrowed, fertilised and properly seeded and landscaped at the end of the works.

Water Supply

The provision of a water supply, either an existing supply or an agreed replacement supply, should be maintained at all times during the construction period of the N9 scheme.

Operational Phase

Remedial measures outlined below relate to engineering accommodation works alone. Further measures to compensate farmers due to land acquisition, drainage works and loss of facilities will be agreed during land acquisition negotiations.

A total of 112 farms (73%) will need to have access points reinstated or new access points installed to ensure the future viability of their enterprises. The extent and complexity of such facilities varies with each farm depending on the nature of the impact and the type of enterprise being carried out. In some cases simple gateways will suffice, while in other cases access roads and bridges may be required. Access to severed lands is essential if they are to continue to be farmed. Direct access over or under the new road may be required for certain farms while for other operations the provision of alternative access from the local roads network in the area will provide a satisfactory level of access to severed lands.

The reinstatement of services such as water, farm roadways and animal handling facilities to severed lands will also be necessary to facilitate the continued farming of lands affected by the proposed scheme. A total of 4 holdings (2.6% of affected farms) will have facilities acquired.

9.2.6 Residual Impacts

As previously outlined the most significant impacts on agriculture relate to severance of farms and loss of land for farming activities.

Severance

The design team have incorporated the provision of alternative access to all severed land into the scheme. In many cases, the provision of this access will mitigate the impact of severance, however, in some cases some residual impacts will remain, which will be addressed by compensation.

Landtake

The design team have made every effort to minimise the level of landtake. However, considerable landtake from some farms is an inevitable result of a major road scheme. The varying impacts of this landtake on individual farms will be addressed by compensation.

To mitigate against the impacts on agriculture any water supply pipelines will be maintained as part of the scheme and that any severed facilities for livestock drinking would be replaced as accommodation works. Similarly, additional facilities on severed lands would normally be addressed as compensation or accommodation works. Disturbed land drainage will be reinstated either as part of the main works, drainage works or as accommodation works.

Residual Impacts can only be fully identified once mitigation measures relating to drainage, land acquisition and loss of farm facilities have been agreed with the landowner. This will be finalised during negotiations at a later stage.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
100y	Unknown	Grassland	Minor	0.06	Severance – None	No Mitigation Necessary.
105a	Unknown	Beef, Cattle	Minor	1.86	Severance – None Potential affect on drainage system.	No Mitigation Necessary.
107b	Unknown	Leased Out	Minor	0.09	Severance – None Access removed	Provide access to severed area(s).
109a 109b 109g 109h	97	Tillage, Grass Seed, Winter Sheep	Major	16.35	Severance – Major Ease of farming land with large machinery hindered. Potential affect on drainage system.	Provide access to severed area(s).
113a 113b 113c	Unknown	Tillage, Dairy	Minor	0.27	Severance – None Access removed	Provide access to severed area(s).
114a	36.8	Tillage	Minor	0.99	Severance – None Potential affect on drainage system.	No Mitigation Necessary.
115a 115d 115f 115g	30.0	Grassland	Major	5.75	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
116a	52.6	Dairy	Minor	0.07	Severance – None	No Mitigation Necessary.
120a	12.9	Leased Out	Major	2.33	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
121a	Unknown	Beef, Tillage	Minor	0.18	Severance – None	No Mitigation Necessary.
122a	76.0	Beef, Tillage	Minor	0.28	Severance – None Potential affect on drainage system.	No Mitigation Necessary.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
124a 124b	118.00	Tillage, Sheep	Major	3.44	Severance – Moderate Access to water for stock affected. Potential affect on drainage system	Provide access to severed area(s).
127a	85.00	Tillage, Suckers, Sheep	Major	3.87	Severance – Moderate Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
128a 128b 128c	85.8	Tillage, Beef, Sheep	Major	5.65	Severance – Moderate Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
129a	26.3	Beef, Tillage	Moderate	2.11	Severance – Minor Access to water for stock affected. Potential affect on drainage system.	Purchase severed portion of land.
132a	Unknown	Woodland Screening	Minor	0.01	Severance – None	
136a	27.00	Beef	Moderate	3.02	Severance – Moderate Potential affect on drainage system.	Provide access to severed area(s) or purchase.
137a 137f 137g	91.87	Dairying, Tillage, Beef	Major	5.44	Severance – Major Severance of main block of land with farm roadway severed. Access to grazing area for dairy cows affected. Potential affect on drainage system.	Provide access to severed area(s).
138a 138b	38.00	Beef, Sheep	Major	3.91	Severance – Moderate Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
139b	16.2	Drystock	Major	0.16	Severance - None	

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
140a	2.2	Grassland	Moderate	2.36	Severance – None Potential affect on drainage system.	No Mitigation Necessary.
150a	Unknown	Grazing	Minor	0.16	Severance – None Access removed	Provide access to severed area(s).
151a 151b 151c 151f	30.6	Beef, Tillage	Major	5.33	Severance – Moderate House severed from majority of lands. Access to lands affected. Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
152a 152b 152c 152d 152e 152f	70.0	Suckling, Beef, Tillage	Major	8.48	Severance – Major Two small portions of land severed from main parcel. Existing entrances (2) to farm and house removed by road. Access lane to lands removed. Removal of existing access to lands. Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase severed portions of land.
153b	22.7	Land Leased – Tillage, Livestock	Minor	0.12	Severance – None Portion of farm boundary removed. Removal of existing farm entrance.	Provide access to severed area(s).
154a*	Unknown	Tillage	Major	0.72	Severance – Major	Provide access to severed area(s).
155a* 155b* 155c* 155f* 155g*	Unknown	Tillage	Major	5.60	Severance – Major	Provide access to severed area(s).

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
158a* 158c*	Unknown	Tillage	Major	3.25	Severance – Major	Provide access to severed area(s).
159a* 159b*	Unknown	Tillage, Beef	Major	5.01	Severance – Major	Provide access to severed area(s).
165a*	Unknown	Tillage	Major	4.17	Severance – Major	Provide access to severed area(s).
166a 166b 166c	72.00	Tillage, Beef	Major	6.92	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
167a** 167b**	Unknown	Grazing, Horses	Minor	0.59	Severance – None	No Mitigation Necessary.
174a	78.1	Suckler Cows, Drystock, Tillage & Sheep	Not Significant	0.22	Severance – None Slight reduction in the area of the land parcel. Land drainage may be affected.	No Mitigation Necessary.
168a 168b	72.8	Sheep, Grain Storage & Hay Drying	Major	3.84	Severance – Moderate Division of land parcel into two areas. Loss of access to farmyard facilities from severed area. Severance of avenue to farmyard facilities. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s).

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
177a	80.9	Drystock	Major	1.09	Severance – Major Division of land parcel into two areas. Loss of access to the severed area. Loss of access to farmyard facilities from severed area. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s).
178a	242.8	Tillage, Suckler Cows & Drystock	Minor	3.68	Severance – Minor Reduction in the area of the land parcel. Land drainage may be affected.	Provide access to severed area(s) or purchase.
179a	89.0	Tillage, Drystock & Sheep	Not Significant	0.26	Severance – None Slight reduction in two areas of the land parcel. Land drainage may be affected.	No Mitigation Necessary.
180b	68.8	Tillage, Suckler Cows, Drystock & Sheep	Major	2.53	Severance – Major Division of land parcel into two areas. Loss of access to the severed area. Loss of access to farmyard facilities. Loss of access points on affected area. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s).
181a	45.3	Suckler Cows, Drystock & Tillage	Minor	1.28	Severance –None Reduction in area of the land parcel. Land drainage may be affected.	No Mitigation Necessary.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
182a	36.4	Leased	Moderate	3.45	Severance – Minor Reduction in area of the land parcel. Loss of access points to the affected area. Land drainage may be affected.	Provide access to severed area(s).
183a	63.1	Dairying	Moderate	3.71	Severance – Moderate Division of land parcel into two areas. Loss of access to farmyard facilities from severed area. Loss of access point on severed area. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s) or purchase.
187a 187c	40.5	Suckler Cows, Drystock & Sheep	Moderate	2.25	Severance – Major Reduction in area of two land parcels. Division of land parcel into two areas. Loss of access to the severed area. Loss of access to farmyard facilities from severed area. Loss of access points on affected area. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s).
187e 187g 187j	Unknown		Minor	0.26	Severance – None	Provide access to severed area(s).
190a 190c	4.5	Drystock	Minor	0.30	Severance – None Loss of access points on affected areas.	Provide access to severed area(s).

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
191a 191b	47.3	Dairy, Drystock & Tillage	Moderate	2.75	Severance – Moderate Division of land parcel into two areas. Loss of access to farmyard facilities from severed area. Loss of access points on affected areas. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s) or purchase.
197a	109.3	Woodland	Not Significant	0.82	Severance – Minor Reduction in area of the land parcel.	Provide access to severed area(s)
198a	Unknown	Tillage & Horses	Moderate	4.10	Severance – None Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
199a	Unknown	Tillage	Minor	0.49	Severance – None	No Mitigation Necessary.
301a	26.3	Leased	Moderate	2.61	Severance – Major Division of land parcel into two areas. Loss of access to severed area. Loss of access from farmyard to severed area. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s) or purchase.
302a 302b	109.3	Tillage, Suckler Cows, Drystock & Sheep	Moderate	4.34	Severance – Moderate Division of land parcel into two areas. Loss of access from farmyard to severed area. Loss of access points on affected areas. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s) or purchase.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
303a 303b 303c	53.8	Sheep, Drystock & Tillage	Minor	2.21	Severance – Minor Reduction in area of the land parcel. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s) or purchase.
304a	10acres	Tillage	Minor	0.11	Severance - None	No Mitigation Necessary.
305c	2.43	Outdoor Pig Unit	Minor	0.19	Severance – None Removal of farm boundary. Potential affect on drainage system.	No Mitigation Necessary.
306a	Unknown	Horses	Major	2.24	Severance – Major Loss of access to water for stock affected. Division of land parcel into two areas. Loss of access to severed area.	Provide access to severed area(s).
308a	Unknown	Unknown	Minor	0.01	Severance - None	No Mitigation Necessary.
309b*	1.21	Grazing	Major	1.03	Severance – Major Access to water for stock affected. Potential affect on drainage.	Purchase severed portion.
310a 310b	83.0	Leased	Moderate	4.02	Severance – Moderate Division of land parcel into two areas. Loss of access to farmyard from severed area. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s).
311a	18.6	Leased, Sheep, Suckler Cows & Drystock	Not Significant	0.37	Severance - None Slight reduction in area of the land parcel. Land drainage may be affected.	No Mitigation Necessary.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
312a	349.3	Tillage, Suckler Cows, Drystock & Horses		3.01	Refer to CPO Plot Ref. No. 314b	
313a	2.4	Leased	Moderate	0.76	Severance – Major Division of land parcel into two areas. Loss of access to severed area. Animal water supply disrupted.	Provide access to severed area(s).
314b	349.3	Tillage, Suckler Cows, Drystock & Horses	Moderate	1.16	Severance – Major Division of land parcel into four areas. Severance of access between two farmyards. Loss of access to farmyard facilities from severed areas. Loss of access points on affected areas. Piped water supply disrupted in affected area. Land drainage may be affected.	Provide access to severed area(s).
315a	349.3	Tillage, Suckler Cows, Drystock & Horses		3.58	Refer to CPO Plot Ref. No. 314b	
320a 320b 320c 320e 320f 320g	126.3	Leased	Major	15.27	Severance – Major Division of land parcel into four areas. Loss of access to one severed area. Loss of access to farmyard facilities from larger severed area. Piped water supply disrupted in affected area. Land drainage may be affected.	Provide access to severed area(s) or purchase.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Mitigation
						Relating to Severance
322c 322d	Unknown	Grazing	Moderate	0.29	Severance – None Land drainage may be affected.	
325a 325c	111.3	Tillage, Drystock & Sheep	Major	5.38	Severance – Major Division of land parcel into two areas. Loss of access from severed area to farmyard. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s).
326b	54.6	Tillage & Drystock	Minor	4.29	Severance – Minor Reduction in area of the land parcel. Removal of main access to farm. Animal water supply disrupted. Land drainage may be affected.	Provide access to severed area(s) or purchase.
329a	Unknown	Grazing	Moderate	2.79	Severance – Minor Reduction in area of the land parcel. Loss of access to two severed areas.	Provide access to severed area(s) or purchase.
330a**	0.8	Grazing	Not Significant	0.043	Severance – None	No mitigation measures necessary.
332a	17.8	Suckler Cows, Drystock, Sheep, Tillage	Moderate	2.61	Severance – Moderate Division of land parcel into two areas. Loss of access to severed area and drystock farmyard. Loss of access from severed area to main farmyard. Animal water supply disrupted.	Provide access to severed area(s).
333a	31.6	Organic Sheep & Tillage	Minor	1.22	Severance – None Reduction in area of the land parcel. Land drainage may be affected.	No Mitigation Necessary.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
334a 334b 334c	125.5	Dairying	Major	2.79	Severance – Major	Provide access to severed area(s) or purchase.
335a 335d 335e 335f	Unknown	Dairying	Major	4.58	Severance – Major Division of land parcel into two areas. Loss of access to severed area and drystock farmyard. Loss of access from severed area to main farmyard.	Provide access to severed area(s).
337a 337b 337c	91.46	Tillage, Beef	Minor	1.59	Severance – Minor Animal water supply disrupted. Land drainage may be affected.	Purchase severed portion of land.
341a	25.9	Tillage, Beef	Major	4.08	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
342a	29.95	Tillage, Sucklers, Beef	Major	1.72	Severance – Moderate Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
343a 343c	45.54	Tillage, Beef	Major	5.11	Severance – Moderate Severance of two portions. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
344a 344c 344d	75.27	Tillage, Beef	Moderate	5.89	Severance – Moderate Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
345a		Tillage, Beef		0.06	Severance – None	No Mitigation Necessary.
346a	62.73	Tillage, Beef, Horses	Major	1.36	Severance – Minor Access to water for stock affected. Potential affect on drainage system.	Purchase severed portion of land.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
348a 348c	34.4	Tillage, Beef, horses	Major	3.35	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
350a	Unknown		Minor	0.11	Severance – None	No Mitigation Necessary
351a	55.44	Tillage, Sucklers, Beef	Major	2.44	Severance – None Access to water for stock affected. Potential affect on drainage system.	No Mitigation Necessary.
352a	70.82	Tillage, Beef	Major	3.96	Severance – Moderate Access to water for stock affected. Potential affect on drainage system	Provide access to severed area(s).
353a	75.68	Beef	Minor	0.56	Severance – None	No Mitigation Necessary.
354a	30.35	Land is set	Major	4.86	Severance – Moderate Access to water for stock affected. Potential affect on drainage system.	No Mitigation Necessary.
355a 355c	254.96	Dairying, Beef, Tillage	Major	1.23	Severance – Major Access to dairy cows to grazing area severed. Access to leased lands severed.	Provide access to severed area(s).
357c 357e	85.8	Sheep, Tillage	Major	3.10	Severance – Major Access to severed lands Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
358a 358b 358d	75.68	Tillage	Major	2.76	Severance – Major Potential affect on drainage system.	Provide access to severed area(s).

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
359a 359d 359g 359h	138.41	Sucklers, Sheep, Tillage, pigs	Minor	5.21	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
360a	60.20	Dairying, Beef	Minor	0.30	Severance – None Access to land affected Potential affect on drainage system.	No Mitigation Necessary.
361a 361c	67.5	Tillage, Hay	Minor	3.54	Severance – Moderate Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
362a 362c 362e	91	Tillage, Hay, Forestry, Sheep	Major	11.53	Severance – Major Travelled paths with machinery through farm disrupted. Removal of some forestry area. Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
365a 365c	64.75	Tillage, Beef, Sheep	Major	6.10	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
368a 368c 368d	76.08	Tillage, Beef	Major	5.22	Severance – Moderate	Provide access to severed area(s) or purchase.
369a	68.8	Tillage, Sucklers, Beef, Sheep, Horses	Moderate	2.97	Severance – None	No Mitigation Necessary.
370a	40.87	Tillage, Beef	Major	5.11	Severance – Major Current entrance to land removed.	Provide access to severed area(s).

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
371a 371b 371d 371e 371g	81.75	Tillage, Beef, Horses	Major	5.01	Severance – Major Current accesses to fields removed. Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
374a	110.08	Tillage, Beef	Major	0.16	Severance – None Access lane severed from land.	No Mitigation Necessary.
375a 375c	23.07	Beef	Major	7.15	Severance – Major Severance of 2 portions of farm. Access to water for stock affected.	Provide access to severed area(s) or purchase.
377a	5.67	Horses	Major	0.39	Severance – Moderate	Provide access to severed area(s).
380a	44.52	Tillage, Hay	Minor	0.42	Severance – None Removal of portion of land.	No Mitigation Necessary.
381a 381c	44.64	Horses, Beef, land is set	Major	4.15	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
382a 382c	96.32	Dairying, Beef	Major	1.40	Severance – None Access to dairy cows to leased area severed Potential affect on drainage system.	Provide access to leased lands (KE071, 187, 190).
383a	41.28	Sheep, Forestry, land set for tillage	Minor	0.80	Severance – Minor Potential affect on drainage system.	Purchase severed portion of land.
384a	40.87	Dairy, Sheep, Tillage	Major	5.29	Severance – Major Access to dairy cows to grazing area severed.	Provide access to severed area(s) or purchase.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
385a 385b	10.52	Sheep	Minor	0.87	Severance – None Loss of portion of land on edge of farm. Removal of entrance gate to lands.	No Mitigation Necessary.
386a 386d	67.58	Land set	Minor	0.59	Severance – None Small portion of land taken. Potential affect on drainage system.	No Mitigation Necessary.
387a	103.20	Tillage, Sucklers, Beef, Sheep Horses	Major	2.53	Severance – Major Potential affect on drainage system.	Provide access to severed area(s).
388a	Unknown		Minor	0.09	Severance – None	No Mitigation Necessary.
389a 389d	445.16	Dairying, Sheep, Beef, Tillage	Moderate	2.72	Severance – Moderate Access to dairy cows to grazing area severed Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
390a	21.04	Tillage, Beef	Moderate	1.89	Severance – Minor Potential affect on drainage system.	Purchase severed portion of land.
391a	36.42	Beef, 1 horse, land set for tillage	Major	2.89	Severance – Major	Provide access to severed area(s).
392a 392c	38.04	Sucklers, Sheep	Major	2.49	Severance – Moderate Entrance to farm and mobile home removed by overbridge.	Provide access to severed area(s) or purchase.
393a	89.84	Land set for tillage and grass	Minor	0.75	Severance – None Land drainage affected.	No Mitigation Necessary.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
394a 394d 394g 394h	60.7	Tillage, Sheep, Hay	Major	5.05	Severance – Moderate Farmyard removed by overbridge. Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
395a	Unknown		Minor	0.27	Severance – None Potential affect on drainage system.	No Mitigation Necessary.
397a	66.77	Tillage, Sucklers	Major	5.02	Severance – Moderate Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
398a 398b 398f	13.76	Land set for grazing	Major	7.95	Severance – Moderate Access to water for stock affected.	Provide access to severed area(s) or purchase.
400a	4.05	Horses	Minor	0.29	Severance – None Portion of land removed.	No Mitigation Necessary.
401a	4.45	Horses / Development Land	Major	1.29	Severance – Moderate Removal of sheds on farm. Potential affect on land drainage.	Provide access to severed area(s) or purchase.
402a	46.94	Tillage	Major	5.88	Severance – Major Potential affect on land drainage.	Provide access to severed area(s).
409a	Unknown	Land not used	Minor	0.00	Severance – None Corner of land taken for road.	No Mitigation Necessary.
411a	1.52	Land set for Hay / Silage	Moderate	0.67	Severance – Moderate	Provide access to severed area(s) or purchase.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
412b 412c 412f 412g	47.75	Sheep, Beef	Major	4.39	Severance – Major Severance of two portions. Access to water for stock affected.	Provide access to severed area(s).
414a 414b 414c	153.78	Sheep, Beef	Major	3.15	Severance – Major Access to water and sheep handling facilities.	Provide access to severed area(s).
415a	21.04	Tillage, Grazing	Minor	0.61	Severance – None Corner of land taken for road.	No Mitigation Necessary.
416a	7.00	Tillage, Sucklers	Major	0.87	Severance – Moderate Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
417a	7.00	Tillage, Sucklers	Severe	0.24	Severance - Major See Table 9.11	Provide access to severed area(s) or purchase.
418a	32.38	Dairying, Beef	Moderate	0.71	Severance – Minor	Purchase severed portion of land.
419a 419b 419d 419e 419g	103.60	Tillage, Beef, Horses	Major	7.86	Severance - Major Farm roadway removed. Severance of two portions. Water supply cut be road. Potential affect on drainage system.	Provide access to severed area(s).
420a 420c 420e 420g 420h	89.08	Tillage, Pedigree Sucklers, Beef	Major	4.28	Severance – Major Potential affect on drainage system.	Provide access to severed area(s).

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
422a	65.16	Land is set	Moderate	2.37	Severance – Minor Access to water for stock affected. Potential affect on drainage system.	Purchase severed portion of land.
424a 424b	43.71	Sucklers, Beef, brood mares	Major	4.97	Severance – Major Severance of farm lane. Potential affect on drainage system.	Provide access to severed area(s).
425a	Unknown		Minor	0.26	Severance – None Potential affect on land drainage system.	
426a	3.68	Horses	Major	1.27	Severance - Moderate Loss of horse training/jumping area. Access to water for stock affected. Potential affect on land drainage system.	Provide access to severed area(s) or purchase.
428a	Unknown	Grazing		0.03	Severance – None	Provide access to severed area(s).
429a	3.68	Tillage, Horses	Minor	0.56	Severance – Minor. Rear entrance to property removed. Potential affect on drainage system.	Purchase severed portion of land.
430a	Unknown		Minor	0.03	Severance - None	No Mitigation Necessary.
431a	0.61	Tillage	Moderate	0.09	Severance – None Potential affect on drainage system.	No Mitigation Necessary.
433a	37.64	Land set for grazing	Major	2.49	Severance – Major. Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
434a	Unknown		Minor	0.12	Severance – None	No Mitigation Necessary
435a	Unknown	Grass	Moderate	0.02	Severance – None	Provide access to severed area.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
436c	4.05	Land set for grazing	Minor	0.92	Severance – Minor. Access to water for stock affected. Potential affect on drainage system.	Purchase severed portion of land.
437a 437b 437c	113.31	Beef, Tillage, Horses	Major	3.01	Severance – Major. Current access to lands removed.	Provide access to severed area(s).
439b	Unknown	Grass	Major	0.21	Severance - None	
440a 440c	Unknown		Moderate	0.56	Severance – Minor Access severed to lands.	Provide access to severed area(s).
443a	2.23	Land set for grazing	Major	0.98	Severance – Major. Access to water for stock affected.	Provide access to severed area(s) or purchase.
444a 444b 444c	29.14	Land set for grazing	Major	3.01	Severance – Moderate. Access to water for stock affected.	Provide access to severed area(s).
	1.94	Land set for grazing	Major	0.16	Severance – None Access severed to lands.	No Mitigation Necessary.
446a 446e 446f 446g 446k	161.88	Sheep, Beef	Major	4.82	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
447a	Unknown	Land not in use	Major	0.27	Severance – None	Purchase of whole plot
448a	7.08	Land set for grazing, Horses	Major	0.96	Severance – Major Access to water for stock affected.	Provide access to severed area(s) or purchase.
451a	3.24	Horses	Major	0.53	Severance – Major	Provide access to severed area(s) or purchase.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
452b 452f 452g 452h 452j 452k	Unknown	Land set for Grazing	Major	1.82	Severance – Major Access to water for stock affected. Potential affect on land drainage.	Provide access to severed area(s).
455a 455c	39.26	Beef, Sheep	Minor	1.35	Severance – Minor	Purchase severed portion of land.
456a			Moderate	0.23	Severance - None	No Mitigation Necessary
457a	117.36	Tillage, Beef, Sheep	Minor	0.05	Severance – None Removal of portion of farm boundary.	No Mitigation Necessary.
458a	14.16	Beef, Sheep	Major	1.76	Severance – Major Severance of portion by slip road for new road.	Provide access to severed area(s)
459a	Unknown		Minor	0.05	Severance - None	No Mitigation Necessary
460a	Unknown		Minor	0.10	Severance - None	No Mitigation Necessary
461d	Unknown	Unknown	Moderate	0.08	Severance - Minor	Provide access to severed area(s)
462a	Unknown	Unknown	Minor	0.00	Severance - None	No Mitigation Necessary
	4.65	Horses	Minor	0.06	Severance - None. Fence line very close to sand arena/gallop.	No Mitigation Necessary.
503a	Unknown		Minor	0.01	Severance – None Access severed	Provide access to severed area(s).
511a	Unknown		Minor	0.20	Severance – None	No Mitigation Necessary.
516a	8.09	Hay, Silage, Horses	Moderate	1.2	Severance – Minor	Purchase severed portion of land.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
514b 514c 514e	242.82	Tillage	Major	1.80	Severance – Moderate Potential affect on drainage system.	Provide access to severed area(s).
515a	Unknown	Tillage	Moderate	1.84	Severance – Moderate Severance of 2 pieces. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
517a	75.88	Land set for Tillage	Major	1.97	Severance – Moderate Potential affect on drainage system. Farm entrance lane affected.	Provide access to severed area(s).
518b	15.78	Tillage	Minor	0.27	Severance – None Removal of current access to lands. Potential affect on land drainage.	No Mitigation Necessary.
520b	Unknown	Tillage	Major	0.83	Severance – Moderate Potential affect on drainage system	Provide access to severed area(s) or purchase.
521a	Unknown			0.003	Severance – None	No Mitigation Necessary.
523b	1.5	Leased	Minor	0.43	Severance – None Road very close to dwelling house.	No Mitigation Necessary.
524a	2.63	Land set for Tillage	Major	0.62	Severance – Major	Provide access to severed area(s) or purchase.
525a	45.32	Tillage	Major	3.49	Severance – Moderate Potential affect on drainage system.	Provide access to severed area(s).
526a 526c	28.33	Land set for Tillage	Major	2.67	Severance – Major Potential affect on land drainage.	Provide access to severed area(s).
527a	Unknown	Tillage		0.42	Severance – None Potential affect on drainage system	No Mitigation Necessary

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
528a 528c	87.5	Tillage, Hay	Major	2.39	Severance – Moderate Potential affect on drainage system. Leaving small corner fields which are difficult for Machinery.	Provide access to severed area(s).
530a	97	Tillage, Beef	Minor	0.50	Severance – None Potential affect on drainage system.	No Mitigation Necessary.
531a	36.00	Horses	Major	0.83	Severance – None Removal of entrance to farm and house. Potential affect on drainage system.	No Mitigation Necessary.
	1.62	Horses, Show Dogs	Minor	0.01	Severance – None Potential affect on drainage system.	No Mitigation Necessary.
535a	16.59	Horses, Tillage, Hay	Minor	0.21	Severance – None Entrance to farm affected. Portion of land adjacent to existing road taken as part of scheme. Potential affect on drainage system.	No Mitigation Necessary.
538a	71.63	Tillage, Beef, Sheep	Minor	0.41	Severance – None Farm entrance removed. Portion of land taken.	No Mitigation Necessary.
540a	2.02	Land set for Tillage	Major	0.70	Severance – Major	Provide access to severed area(s) or purchase.
541g 541j 541o (541c) (541n)	Unknown	Forestry Yard and Outbuilding	Moderate	0.42 (+ 21)	Severance - None	Provide access to severed area(s).

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
544a 544e 544f 544g	145.69	Tillage, Beef	Major	6.41	Severance – Major Entrance lane to farm severed. One of yards severed from house and main yard. Potential affect on drainage system.	Provide access to severed area(s).
545a	Unknown	Tillage	Minor	0.24	Severance – None Potential affect on drainage system.	No Mitigation Necessary
546a 546c 564f	76.8	Beef, Tillage, Forestry	Major	1.95	Severance – Moderate Access to water for stock affected. Potential affect on drainage system Crossing a Right of Way.	Provide access to severed area(s).
547a	87.5	Tillage, Hay	Minor	0.14	Severance – None	
548a	Unknown	Grassland	Minor	0.66	Severance – Minor Access to field affected. Potential affect on drainage system.	Purchase severed portion of land.
549a	8.5	Beef, Plant Nursery	Major	1.63	Severance – Major Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s) or purchase.
550c	19.83	Land leased	Major	1.93	Severance – Moderate Access to water for stock affected.	Provide access to severed area(s) or purchase.
552a 552c	93.48	Dairying, Beef	Major	2.51	Severance – Moderate Access to dairy cows to grazing area severed Potential affect on drainage system.	Provide access to severed area(s) or purchase.

Table 9.6 Individual Agricultural Impact Assessment Reports for the N9 Kilcullen to Powerstown Scheme (contd.)

CPO Ref. No.	Total Area of Farm Holding (Ha)	Farm Enterprise Impacted	Level of Overall Impact	Nature of Impact		Mitigation
				Estimated ¹ Land Loss (Ha)	Severance & Others Impacts	Relating to Severance
553a 553c 553e 553f 553g 553h	64.75	Tillage, Beef, Sheep	Major	2.43	Severance – Moderate Potential affect on drainage system.	Provide access to severed area(s) or purchase.
554a	Unknown		Minor	0.003	Severance – None	No Mitigation Necessary.
555a	Unknown		Minor	0.02	Severance – None	No Mitigation Necessary.
559a	Unknown		Minor	0.07	Severance – None	No Mitigation Necessary.
560a 560c (560f)	Unknown	Grassland Yard & Outbuilding	Moderate	0.56 (+ 0.09)	Severance – None	No Mitigation Necessary.
561a	Unknown		Minor	0.14	Severance – None	No Mitigation Necessary.
335a 335d 335e 335f	Unknown	Dairying, Beef	Major	4.57	Severance – Major Access to dairy cows to grazing area severed. Access to water for stock affected. Potential affect on drainage system.	Provide access to severed area(s).
	8.0	Sheep	Major	0.16	Severance – Minor Access to water for stock affected.	Provide access to severed area(s) or purchase.

* No Access obtained but Roadside Inspection Completed

** Unable to make contact with Landowner but Field Walk Completed

1 The farm size are approximate estimations.

9.3 Residential Property

9.3.1 General

The N9 Kilcullen to Powerstown Scheme will involve the acquisition of part, or all of a number of residential properties or their gardens. This section of the report deals with the impact that the proposed acquisition will have on the various residential properties along the route.

The impact on property is set out under the following headings:

- Property to be Acquired (PA)
- Properties Affected by Partial Acquisition of Curtilage (PAPAC)
- Properties Affected by Altered Access Arrangements (PAAAA)

The effects on properties affected by Partial Acquisition of Curtilage (i.e. the lands surrounding buildings within enclosures) has been assessed as slight, moderate and severe, based on the following criteria:

- Slight: Loss of less than 10% of total curtilage area.
- Moderate: Loss of less between 10% and 25% of total curtilage area.
- Severe: Loss of more than 25% of total curtilage area.

A general map showing the residential properties affected by the N9 Kilcullen to Powerstown Scheme is shown in Figures 9.1 to 9.23 (Volume 2).

9.3.2 Residential Properties Affected

The residential properties, or parts of properties, to be acquired in each section of the scheme are summarised in Tables 9.7 to 9.10. The information included in the tables is based on the records in the Land Registry in June 2003 and other information received from landowners. Furthermore, it should be noted that the area of land around farm houses is registered as agricultural land and any impacts on such lands is recorded in the preceding Section 9.2.

**Table 9.7 Residential Properties Affected Section A
Kilcullen to Mullamast**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
461a**	Knockaulin	Garden	In line of N9/N78 Link	0.008	PAAAA PAPAC	Slight
449a 449b	Kilcullen	Garden	Realignment of local road	0.053	PAAAA PAPAC	Moderate
446m**	Yellowbog Common	Garden	In line of Mainline & realignment of Local road	0.140	PAAAA PAPAC	Moderate
445a 445b 445c	Yellowbog Common	Garden	In line of Mainline, access track & drainage requirements	0.29	PAPAC	Moderate
438a	Yellowbog Common	Garden	Realignment of Local road	0.001	PAPAC	Slight

**Table 9.7 Residential Properties Affected Section A
Kilcullen to Mullamast (contd.)**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
436a**	Yellowbog Common	Development Land	Realignment of Local road	0.485	PAAAA PAPAC	Severe
432a	Yellowbog Common	Garden	Realignment of Local road	0.004	PAPAC	Slight
427a	Yellowbog Common	Garden	Realignment of Local road	0.012	PAAAA PAPAC	Slight
425d**	Yellowbog Common	Garden & Field	Access road	0.051	PAPAC	Slight
413a	Usk Little	Garden	In line of mainline & landscaping	0.158	PAPAC	Severe
410a	Ballymount	Garden	Realignment of access road	0.013	PAPAC	Moderate
410b		Driveway		0.015	PAAAA	
409c**	Ballymount	Garden	Realignment of Regional road	0.059	PAPAC	Slight
409b**		Driveway		0.027	PAAA	
409d**						
401a**	Ballymount	Development Land	In line of mainline	1.286	PAPAC PAAAA	Severe
381e**	Mullamast	Garden & Driveway	Realignment of Local road	0.008	PAPAC PAAAA	Severe
381f**	Mullamast	Development Land	Realignment of Local road	0.007	PAPAC PAAAA	Severe
379a	Mullamast	Garden	Realignment of Local road	0.003	PAPAC PAAAA	Slight

** Refer also to Table 9.6

**Table 9.8 Residential Properties Affected Section B
Mullamast to Prumplestown**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
339a	Coolane	Garden	In line of mainline	0.089	PAPAC	Moderate
338a	Hallahoise	Garden	In line of mainline	0.158	PAPAC	Severe
336a	Hallahoise	Garden	Realignment of Regional road	0.050	PAPAC	Moderate
324a	Woodlands West	Garden	Realignment of Local road	0.091	PAPAC PAAAA	Severe
319a	Barnhill West	Garden	Junction 3	0.027	PAPAC	Slight
187l**	Gorteenvacan	Garden	Realigned N9 – Junction 3 to Carlow	0.028	PAPAC PAAAA	Moderate
558a	Gorteenvacan	Garden	Realigned N9 - Junction 3 to Carlow	0.017	PAPAC PAAAA	Moderate

**Table 9.8 Residential Properties Affected Section B
Mullamast to Prumplestown (contd.)**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
560e 560f**	Gorteenvacan	Garden, Yard and Outbuildings	Realigned N9 - Junction 3 to Carlow	0.014	PA	To be acquired

** Refer also to Table 9.6

**Table 9.9 Residential Properties Affected Section C
Prumplestown to Powerstown**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
307a	Ballyhade	Garden	Realignment of Local road & Access track	0.015	PAPAC	Slight
195a	Burtonhall Demesne	Garden	Alternative access	0.006	PAAAA	Slight
186a	Ardnehue	Garden	Realignment of Local road	0.010	PAPAC PAAAA	Slight
173a	Johnstown	Garden	Realignment of Regional road	0.001	PAAAA	Slight
171a	Johnstown	Garden	Realignment of Regional road	0.001	PAAAA	Slight
170a	Johnstown	Garden	Realignment of Regional road	0.00004	PAAAA	Slight
151g**	Rathcrogue	Garden	Junction 4	0.023	PA	To be acquired
148a	Rathcrogue	House & Garden	Junction 4	0.223	PA	To be acquired
147a	Rathcrogue	Garden	N80 Realignment	0.003	PAAAA	Slight
134a	Tinryland	Garden	Drainage improvement	0.006	PAPAC	Slight
132c**	Tinryland	Garden	Drainage improvement	0.011	PAPAC	Moderate
130a	Ballybar Upper	Garden	Drainage improvement	0.004	PAPAC	Slight
120c**	Ballybannon	Garden	Realignment of Local road	0.027	PAPAC PAAAA	Slight
117a	Ballybannon	Garden	Realignment of Local road	0.031	PAAAA	Slight
107a**	Cloghrystick	Garden	Junction 5	0.264	PAPAC PAAAA	Moderate

** Refer also to Table 9.6

**Table 9.10 Residential Properties Affected Section D
Athy to R747 Link Road**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
505a	Gallowshill	Garden	N78 North Realignment	0.021	PAPAC PAAAA	Slight
507c	Gallowshill	Garden	N78 North Realignment	0.039	PAPAC	Moderate
508a	Gallowshill	Garden	N78 North Realignment	0.008	PAAAA	Slight
516a, 516b	Gallowshill	Development Land	On line of Athy to R747 Link Road	1.158	PAPAC	Severe
519b	Bray Upper	Garden	On line of Athy to R747 Link Road	0.016	PAPAC	Slight
523c	Bray Upper	Garden	On line of Athy to R747 Link Road	0.117	PAPAC	Severe
532a	Ballycullane	Garden	On line widening of Athy to R747 Link Road	0.097	PAPAC PAAAA	Moderate
533a	Ballycullane	Garden	On line widening of Athy to R747 Link Road & side road realignment	0.008	PAPAC	Slight
536a	Inch	Garden	On line widening of Athy to R747 Link Road & side road realignment	0.025	PAPAC	Moderate
541e** 541l** 541m**	Burtown Big	Garden	On line widening of Athy to R747 Link Road	0.090	PAAAA PAPAC	Moderate
543a	Burtown Big	Garden	Junction realignment & alternative access	0.043	PAAAA PAPAC	Moderate
547d**	Burtown Little	Development Land	On line widening of Athy to R747 Link Road	0.121	PAAAA PAPAC	Moderate
367a	Moone	Garden	Athy to R747 Link Road & side road realignment	0.002	PAPAC	Slight

** Refer also to Table 9.6

It can be seen from the tables that only one occupied property (Plot Ref 148a/151g) and one unoccupied property (Plot Ref 560f) are to be acquired. Of the remaining 48 properties, 5 are designated Development Land for residential property. Nine properties are severely affected, 16 properties moderately affected and 24 properties slightly affected by the scheme. Of these, two outbuildings will be demolished for the realignment of the L8015 Local Road, and one outbuilding will be demolished for the Realigned N9, southwest of Junction 3.

A semi-permanent mobile home has also been identified on the north side of the L8015 Narraghmore Road. The realignment of this Local Road may necessitate relocating the mobile home.

9.3.3 Ameliorative and Mitigation Measures

Compensation payments for loss of land and other injurious affection would be agreed with all property owners affected by land take for the scheme. Where part of the property or land surrounding a property is to be acquired, agreement would be reached with the owner of the property on the type of boundary treatment that would be provided. Where an access to a property is affected the access would be reinstated to match the existing.

9.4 Commercial Property

9.4.1 General

The N9 Kilcullen to Powerstown Scheme would involve the acquisition of part of a number of commercial properties to various degrees. This section of the report deals with the impact that the proposed acquisition would have on the various commercial properties along the route.

The impact on property is set out under the following headings:

- Property to be Acquired (PA)
- Properties Affected by Partial Acquisition of Curtilage (PAPAC)
- Properties Affected by Altered Access Arrangements (PAAAA)

The effects on properties affected by Partial Acquisition of Curtilage has been assessed as slight, moderate and severe, based on the following criteria:

- Slight: Loss of less than 10% of total curtilage area.
- Moderate: Loss of less between 10% and 25% of total curtilage area.
- Severe: Loss of more than 25% of total curtilage area.

A general map showing the commercial properties affected by the N9 Kilcullen to Powerstown Scheme is shown in Figures 9.1 to 9.23 (Volume 2).

9.4.2 Commercial Property Affected

The commercial properties, or parts of properties, to be acquired in each section of the scheme are summarised in Tables 9.11 to 9.14 below. This information is based on the records in the Land Registry in June 2003 and other information received from landowners.

**Table 9.11 Commercial Properties Affected Section A
Kilcullen to Powerstown**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
426a**	Yellowbog common	Riding School and Stables	On line of mainline	1.270	PAAAA PAPAC	Severe
417a**	Baronsland	Quarry	On line of mainline	0.239	PAAAA PAPAC	Slight
412a**	Kilgowan	Landfill Site	On line of mainline	2.011	PAAAA PAPAC	Moderate

** Refer also to Table 9.6

**Table 9.12 Commercial Properties Affected Section B
Mullamast to Prumplestown**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
344f**	Ballyvass	Sand & gravel pit/ ready mix concrete batching plant.	Required for mainline route construction. Existing access severed.	0.041	PAPAC PAAAA	Moderate

** Refer also to Table 9.6

**Table 9.13 Commercial Properties Affected Section C
Prumplestown to Powerstown**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
151e**	Rathcroogue	Driveway	Existing access severed by mainline & Junction 4. New access provided off roundabout at Junction 4.	0.151	PAAAA	Slight
119a** 119d**	Clonmelsh	Philip Morrissey Quarry	Minor changes to road layout outside quarry.	0.220	PAPAC	Slight
110a	Clonmelsh	Coras Iompair Eireann	Mainline crossing railway	0.360	PAPAC	Slight
110b	Ballybannon	Coras Iompair Eireann	Mainline crossing railway	0.113	PAPAC	Slight

** Refer also to Table 9.6

**Table 9.14 Commercial Properties Affected Section D
Athy to R747 Link Road**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
502a	Gallowshill	Development Land	N78 South Realignment	0.017	PAPAC	Slight
504a	Gallowshill	Development Land	N78 North Realignment	0.030	PAAAA PAPAC	Slight
515c	Gallowshill	Development Land	On line of Athy to R747 Link Road	1.232	PAPAC	Moderate
539a	Burtown Big	Development Land	On line of Athy to R747 Link Road	0.043	PAAAA PAPAC	Moderate
541c**	Ballycullane	Agricultural products distribution	On line of Athy to R747 Link Road	0.162	PAAAA PAPAC	Moderate

**Table 9.14 Commercial Properties Affected Section D
 Athy to R747 Link Road (contd.)**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
541n**	Ballycullane	Yard & Outbuildings	On line of Athy to R747 Link Road	0.015	PAPAC	Slight
547d**	Burtown Big	Development Land	On line of Athy to R747 Link Road	0.121	PAAAA PAPAC	Moderate

** Refer also to Table 9.6

Only one property (Plot Ref 426a) will be severely affected by the scheme, and of the remaining 14 properties, six are moderately affected and eight slightly affected by the scheme. Of the 15 properties listed, 5 are designated Development Land.

9.4.3 Ameliorative and Mitigation Measures

Compensation payments for loss of land and other injurious affection would be agreed with all property owners affected by land take for the scheme. Changes in the access arrangements would be agreed for the property together with the erection of boundary treatment similar to that currently found at the site.

9.5 Recreational Areas

9.5.1 General

The N9 Kilcullen to Powerstown Scheme would involve the acquisition of part or all of a number of recreational areas to various degrees. This section of the report deals with the impact that the proposed acquisition would have on the various recreational areas along the route.

The impact on the recreational areas is set out under the following headings:

- Property to be Acquired (PA)
- Properties Affected by Partial Acquisition of Curtilage (PAPAC)
- Properties Affected by Altered Access Arrangements (PAAAA)

The effects on the recreational areas affected by Partial Acquisition of Curtilage has been assessed as slight, moderate and severe, based on the following criteria:

- Slight: Loss of less than 10% of total curtilage area.
- Moderate: Loss of less between 10% and 25% of total curtilage area.
- Severe: Loss of more than 25% of total curtilage area.

A general map showing the recreational area affected by the N9 Kilcullen to Powerstown Scheme is shown in Figures 9.1 to 9.23 (Volume 2).

9.5.2 Property Affected

The recreational properties, or parts of properties, to be acquired in each section of the scheme are summarised in Tables 9.15 to 9.17 below. This information is based on the records in the Land Registry in June 2003 and other information received from landowners.

**Table 9.15 Recreational Areas Affected Section A
 Kilcullen to Powerstown**

CPO Ref No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
396a, 396b.	Narraghmore Bog	Agricultural Land	Drainage Requirement	0.343	PAPAC	Slight

** Refer also to Table 9.6

**Table 9.16 Recreational Areas Affected Section C
 Prumplestown to Powerstown**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
197a**	Burton Hall Demesne	Woodland	Mainline at Ch. 46,500	0.818	PAAAA	Moderate
142a, 142b	Rathcrogue	Part of Tinryland GFC	Mainline at Ch. 38,540 and provision of access track	0.099	PAPAC	Slight

** Refer also to Table 9.6

**Table 9.17 Recreational Areas Affected Section D
 Athy to R747 Link Road**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
396d	Turnerstown	Woodland	On line of the Athy to R747 Link Road	0.357	PAPAC	Slight
531a	Turnerstown	Woodland	On line of the Athy to R747 Link Road	0.467	PAPAC	Slight
535a	Ballycullane	Woodland	On line of the Athy to R747 Link Road	0.207	PAPAC	Slight
541a**	Ballycullane	Woodland	On line of the Athy to R747 Link Road	0.581	PAPAC	Slight

Only one significant community recreational area is affected by the N9 Kilcullen to Powerstown Scheme. This is the Tinryland GFC at Rathcrogue, on the N80 southeast of Carlow Town. Here the scheme involves the acquisition of a small section of land on the west side of the club house, but has no other impact. A dedicated access from the N80 realignment to the club house on the east side of the mainline is included in the scheme, and pedestrian facilities along the existing N80 would be improved by the provision of a footpath/cycleway along the south side of the N80 over the length of the realignment, including through the underbridge at Junction 4.

9.5.3 Ameliorative and Mitigation Measures

The amelioration and mitigation for the loss of recreational areas and property would be agreed in a similar way to residential property (See section 9.3.3). Small changes in the access arrangements would be agreed for the property together with the erection of boundary treatment similar to that currently found at the site.

9.6 Public Facilities

9.6.1 General

The N9 Kilcullen to Powerstown Scheme will involve the acquisition of a small part of the Powerstown Landfill Site to facilitate the drainage works on the N9 South Link at Junction 5. The Public Facility is indicated in Figure 9.1 (Volume 2).

The impact on this Public Facility is set out under the following headings:

- Property to be Acquired (PA)
- Properties Affected by Partial Acquisition of Curtilage (PAPAC)
- Properties Affected by Altered Access Arrangements (PAAAA)

The effect on the Public Facility, affected by Partial Acquisition of Curtilage has been assessed as slight, based on the following criteria:

- Slight: Loss of less than 10% of total curtilage area.
- Moderate: Loss of less between 10% and 25% of total curtilage area.
- Severe: Loss of more than 25% of total curtilage area.

9.6.2 Property Affected

The Public Facility to be acquired is summarised in Table 9.20 below. This information is based on the records in the Land Registry in June 2003 and other information received from landowners.

**Table 9.18 Public Facility Affected Section C
 Prumplestown to Powerstown**

CPO Ref. No.	Location	Description	Reason for Acquisition	Land Acquired	Impact	Severity
100g, 100y	Powerstown	Powerstown Landfill site	Junction 5 - N9 South Link. Access altered to suit proposed N9 South Link.	0.061	PAPAC	Slight