WWF Northern Ireland
2nd Floor, 7 Exchange Place
Belfast, Northern Ireland
BT1 2NA
tel: 028 9033 2869
fax: 028 9033 3401
northernireland@wwf.org.uk
wwf.org.uk/northernireland

WWF *for a living planet*

Louise Fitzpatrick
Regional Planning and Transportation Division,
3rd Floor,
Clarence Court,
10-18 Adelaide Street
Belfast
BT2 8GB

Reference: Regional Development Strategy consultation.

30th March 2011

Dear Ms Fitzpatrick,

WWF Northern Ireland welcomes the opportunity to respond to the consultation on "*Shaping Our Future*". The main issues for WWF Northern Ireland in this proposed strategy relate to transport and energy use, and related climate change considerations, and freshwater quality and quantity.

1 Transport and energy use - general background

WWF Northern Ireland was pleased to see, and supports SG 16, as outlined on page 97 which aims to

"*Reduce our carbon footprint and facilitate mitigation and adaptation to climate change whilst improving air quality*"

WWF Northern Ireland also welcomes and supports SG 17, as outlined on page 104 which aims to

"*Deliver a sustainable and secure energy supply*"

WWF Northern Ireland also welcomes and supports the aims outlined on pages 97 and 98, amongst other things, to

"*Adapt the existing transport network to facilitate the modal shift away from the car*"

"*Increase the use of renewable energies*"

"*Use more energy efficient forms of transport*"

and

"*Improve the energy efficiency of buildings*"

WWF Northern Ireland was interested to see the reference on page 99 to Beddington Zero Energy Development (BedZed) in relation to buildings and energy given WWF UK's previous involvement with Bioregional in the development of One Planet Living that led to BedZed. WWF Northern Ireland has been working with Lafarge in the development of Magheramourne One Planet Living centre near Larne

and would be happy to liaise with the Department further in relation to our work on sustainable building principles and opportunities.

Generally, Northern Ireland's current system of energy production and consumption is wholly unsustainable, not least because of the volatility in oil prices, but also because of our over reliance on imported fossil fuels - with approximately 99% of our primary energy needs met from imports [(1)] - and the issues surrounding peak oil, diminishing oil resources and increasing demand. This is particularly the case in the transport sector, where liquid hydrocarbon fuels derived from crude oil provide 95% of the primary energy consumed in the transport sector worldwide[(2)]. There is no other sector which is so utterly reliant on a single source of primary energy, which is particularly concerning considering the impact of the volatility in oil price, well illustrated by the variation in price in 2008 when oil reached an all time high of $147 a barrel in July before dropping back to under $40 a barrel by the end of the year. The impact of this volatility was highlighted by the Economist Dr. Shimon Awerbuch of the University of Sussex, UK who said [(3)]

"*Oil price spikes between 2000 and 2005 cost the EU EUR 400-700 billion, which is more than the estimated total investment needed to meet the EU target of 20 per cent renewables by 2020*,"

The trend of declining reserves coupled with increasing demand for oil, and all the economic, social and environmental implications that result, should ensure this shift is achieved as a matter of urgency, though there is little sign of it yet, even though the International Energy Agency[(4)] have said

"*The world's energy system is at a crossroads. Current global trends in energy supply and consumption are patently unsustainable – environmentally, economically and socially. But that can – and must – be altered; there's still time to change the road were on*"

In the EU, transport is the sector with the largest demand for energy, accounting for 31% of total final energy consumption, of which road transport accounts for 85% [(5)]. Emissions from road transport represented 28.2% of Northern Ireland's total Carbon Dioxide (CO_2) emissions in 2008[(6)], an increase of 39.5% since 1990[(6)], second only to energy production (30%). Cars were responsible for 54% of the CO_2 emissions from the road transport sector in 2008 while HGVs contributed 36%. By contrast, road transport represents only 22% of the UK's total CO_2 emissions which grew by only 7% since 1990, so there is clearly a disproportionate problem in Northern Ireland[(6)]. At both a UK level and a Northern Ireland level, around 15% of an individual's ecological footprint is attributable to personal transport[(7)]. Clearly we need to change our travel patterns, if we are to achieve a One Planet Future[(8)].

WWF Northern Ireland believes that in order to make our transport system more sustainable the total distances travelled and the number of journeys by private modes of transport needs to be significantly reduced, with greater distances travelled and number of journeys made by more sustainable options such as walking, cycling and public transport.. WWF Northern Ireland would like to take this opportunity to congratulate DRD on the success of the joint bid with DoE to OLEV as part of the Plugged in Places scheme. WWF Northern Ireland strongly supports the greater use of electric vehicles and welcomes the references to the need for the electrification of transport. According to a 2011 WWF UK report on the potential for electric vehicles across the UK "Electric Avenues", along with traffic stabilisation and a decarbonised grid, a high level of electric vehicle (EV) uptake could cut UK fuel demand by 80% and reduce car emissions by 75% by 2030 in comparison to 1990 levels (of which 28% is the contribution of EVs alone)[(9)].

There are many other options available that will help reduce greenhouse gas emissions from transport in Northern Ireland. For example, the Committee on Climate Change's first report, released in December 2008[(10)], also includes an analysis of what opportunities exist for making emission reductions in Northern Ireland. It states in Northern Ireland more efficient vehicles and new transport fuels could deliver reductions of 0.7 $MtCO_2$ (Million tonnes of carbon dioxide) in 2020. Research by the Tyndall Centre for Climate Change suggests that if we were to enforce the current 70 mph speed limit there would be a 3% reduction in greenhouse gas emissions from road transport[(11)].

1.1 The economic implications of energy and transport

In relation to transport spending, WWF Northern Ireland is concerned at the disproportionate allocation of funding for road building which we believe is exacerbating rather than ameliorating the existing problems. For example, as outlined in paragraph 14 on page 6 of the draft budget, of the 2010 capital investment budget of over £2 billion, over £1.1 billion has been earmarked for roads, with around £185 million for public transport and over £665 million for water and sewerage services. WWF Northern Ireland regards this split where approximately 83% of the money to be spent on transport is allocated to roads, with the remaining 17% on public transport, as wholly unsatisfactory. According to page 7 of the draft budget, approximately 70% of Roads Service allocation is tied up in two major road schemes - the A5 and A8, which WWF Northern Ireland regards as disproportionate, even accounting for the £400 million the Republic of Ireland is due to allocate towards these schemes.

WWF Northern Ireland recognises that DRD has taken some very positive steps in recent times, most notably the successful joint bid with DoE, managed by SNIFFER, to OLEV for electric vehicle recharging infrastructure, However, overall, WWF Northern Ireland regards the budgetary proposals from DRD as completely imbalanced in favour of road building, to the detriment of more sustainable transport options. For example, looking at the proposed capital spend in 2013/14 £387.4 million is allocated for roads and only £13.3 million on 'transport' - an approximate split of 96% of spending on roads with approximately 4% on remaining transport options. WWF Northern Ireland regards this as wholly inappropriate and totally unsatisfactory. This contrasts with the higher priority given to public transport in the Republic of Ireland which in the 2007-2013 National Development Plan[(12)] (NDP) pledged just under €13 billion for public transport out of a total of €33 billion on infrastructure. There is an even sharper contrast with the plans announced by the Danish government in December 2008 [(12)] of a "*green traffic initiative*" featuring infrastructure investments and transport measures costing DKr150bn (€20bn) over the next decade. According to the Danish plan, about two-thirds of the total will be spent on "*renovating, improving and developing the railway network*" with the aim of converting motorists to public transport. High emissions charges, road pricing, and financial incentives for fuel-efficiency are among a raft of additional measures. Similar strategic thinking and investment in greater public transport would be welcome in Northern Ireland.

According to the indicative budgets for the period 2011/12-2017/18 a total of £3,095 million will be spent on roads and £725 million on public transport. WWF Northern Ireland views this balance, whereby approximately three quarters of all of money is allocated for road building and approximately one third allocated for public transport as, at best, inappropriate as it compounds an existing problem, namely the inadequate provision of alternatives to car use, and is likely to make the achievement of Northern Ireland's target to reduce GHG emissions by 25% by 2025 much more difficult to achieve.

It is important to note that the shortcomings in our transport system also cost us money, as was illustrated by PA Consulting, who claimed that congestion costs the Northern Ireland economy over £250 million a year[(14)].

It seems clear therefore that avoiding and/or reducing some of the costs of unsustainable transport (including congestion, pollution and negative health impacts) while also saving money, and creating jobs by investing in the move to a more sustainable transport system, offers a number of potential win-win opportunities.

The need for and benefits of greater investment in public transport was also highlighted by the PricewaterhouseCoopers report "*Bridging the Gap*" [(15)] which found that the £80 million investment in new rolling stock and station refurbishment for Northern Ireland Railways

"*helped to drive a 60% increase in usage since 2002*"

and that the change to Metro was

"*the catalyst for a 15% increase in bus ridership in Greater Belfast*".

It seems clear, therefore, that increasing investment in public transport works - a very significant point given that the report also found that

"*On a per capita basis, England, Scotland, Wales and the Republic of Ireland have been investing at least twice as much as Northern Ireland in public transport (and in the case of Scotland five times as much).*"

Recommendation 1: WWF Northern Ireland recommends that at least 50% of future transport budgets be allocated to public transport and/or sustainable transport options, including walking and cycling. This needs to be accounted for not only in the next Regional Development Strategy but also the next Programme For Government and Regional Transportation Strategy (RTS).

1.2 Planning for a low carbon economy

In addition to the environmental, social and moral reasons, there are sound economic reasons why Northern Ireland must move to a low carbon economy. In the 1970's Denmark was in a similar position to the one Northern Ireland is currently in, as it was reliant on imported fossil fuel from the Middle East for 99% of its energy supply. Following the oil crisis of the early 1970s Denmark moved to tackle this problem and is now self sufficient in energy with about 30% of all its energy supplied by renewables. Given WWF Northern Ireland has long been calling for the development of a long term energy strategy for Northern Ireland, it is significant that on 24th February 2011, Denmark announced its Roadmap 2050, a long term energy strategy which outlined how Denmark could be well on its way to complete independence of fossil fuels by 2050. This long term planning is exactly what Northern Ireland needs. In 2006, Sweden, where 26% of all the energy consumed came from renewable sources, as compared to the EU average of 6%) [(16)] outlined its aim to be oil free by 2020[(17)]. Concerned about its 90% reliance on imported fossil fuels, in May 2009 the Ideas Foundation in Spain produced "A new energy model for Spain" [(18)] which

"*proposes a new energy model for Spain, free of CO_2 emissions and of nuclear energy by 2050, with the capacity to satisfy 100% of energy demand through renewable sources*"

In addition, it has been estimated that 27 EU countries could save $100 billion a year by 2020 through energy efficiency measures[(19)].

Now is the time to start making the decisions necessary to invest in a low carbon economy, as the CBI have argued[(20)]

"*We must not allow the global economic crisis become an excuse for inaction on climate change*" [(21)]

Similarly a HSBC evaluation[(22)] of the various economic stimuli packages around the world highlighted the benefits of tackling climate change and noted that amongst the arguments for a low carbon stimulus

"*The low-carbon economy can also be a job rich economy at a time of soaring unemployment, particularly through enhancing building efficiency, either via retrofit or new construction, and improving mass transit*."

It seems clear, therefore, that there is a pressing need to find alternatives to this unsustainable system and in particular, to oil. According to the BP Statistical Review of World Energy 2008 there is only 41.6 years supply of oil left, at current rates of consumption, but global oil consumption rose 1.1% in 2007. Then here is the issue of peak oil, which may already be upon us. A report by Uppsala University[(23)] concluded global oil production has already peaked and that

"*It is unlikely that future world crude oil production will ever return to the levels seen in 2008*"

The net effect of the (im)balance between supply and demand for oil is that oil price and consequently the price of energy based on or derived from oil, is likely to rise in the future. This was acknowledged by DETI in the consultation on the draft SEF 2009, paragraph 2.1. on page 8,

"*Energy will become increasingly expensive as fossil fuel resources decline*"

This was also acknowledged by the Minister for Enterprise Trade and Investment in November 2009[(24)]

"*The cost of inaction on renewables now would lock us into potentially even higher costs over the long term. The era of low energy prices is over.*"

As was highlighted by the UNEP in February 2011[25] investing just 2% of GDP in a green transformation of (ten) key sectors can kick start a transition towards a low carbon, resource-efficient economy. According to the UNEP report

"*Greening the economy not only generates growth and in particular gains in natural capital, but it also produces a higher growth in GDP and GDP per capita. Under the GER modelling exercise, a green investment scenario achieves higher economic growth rates than a business as usual scenario within 5-10 years*"

It appears that this principle had already been understood and accepted by certain countries, which responded to the recent economic crisis by providing stimulus packages which included a significant 'green' or sustainable element. According to the HSBC [18] evaluation of the various stimulus packages around the world, 81% of South Korea's stimulus package was green, while in China 34% of the stimulus was green and in the US it was 12% and in the UK 7%. WWF Northern Ireland suggest that the difficulties Northern Ireland has competing in international markets are only likely to be exacerbated as those countries Northern Ireland will be competing with become greener and move further and faster down a low carbon path than Northern Ireland

Recommendation 2: WWF Northern Ireland believes that the development of a low carbon economy should be Northern Ireland's top economic priority, as a number of significant economic, environmental and social benefits are likely to accrue from such a move, whilst also offering the chance to avoid or reduce the potentially negative impacts of business as usual, and this reprioritisation should be reflected in the next phase of the RDS.

2. Freshwater quality and quantity

2.1 Water Quality and the Water Framework Directive

WWF Northern Ireland believe it is appropriate that water quality improvements have been identified as a significant factor impacting on the Region, as highlighted on p13,

"There is significant scope for improvement in the quality of the water environment".

The EU Water Framework Directive was transposed into national legislation in 2003. It commits Member States to achieve good quantitative and qualitative status in all water bodies by 2015. River Basin Management Plans (RBMPs) which set out how this will be achieved were published in 2009 and are currently being implemented. Whilst in Northern Ireland, NIEA is the responsible authority, there is a duty on all Departments to contribute to attaining WFD objectives and execute their specific commitments outlined in RBMPs.

To be consistent with the other issues identified in the RDS, WWF Northern Ireland believes that more detail is required to convey an understanding of the extent of water quality problems and to recognise the requirements under EU legislation for water quality improvement. Specifically, the Strategy should state that an assessment carried out by NIEA as part of the Water Framework Directive requirements revealed that in 2009, only 27% of Northern Ireland's freshwater bodies were of at least Good Ecological Status, the standard required by Europe for 2015.

Given this, we suggest that a water related target should be set on p.15, i.e. To achieve good ecological status in all water bodies by 2015.

Finally, Table 7.1 lists as one of the indicators the *"% of river water bodies achieving at least good chemical classification as per the Water Framework Directive*". Whilst chemical assessment forms part of the Water Framework Directive water quality classification, the standard the Directive requires is good ecological status. Therefore, WWF Northern Ireland believes this indicator should be amended to read

"% of river water bodies achieving at least good ecological classification as per the Water Framework Directive"

Recommendation 3: WWF Northern Ireland believe that the Strategy should specifically include a Water Quality Target referring to the current status of water bodies and objectives set under the Water Framework Directive as outlined in NIEA's River Basin Management Plans.

2.2 Management of Cross Border Waters

The Strategy should acknowledge the fact that many rivers and lakes cross the border between Northern Ireland and the Republic of Ireland and as such, must be managed accordingly. Cross border management is a necessary requirement under the Water Framework Directive which states in Article 13 that,

'*in the case of an international river basin district falling entirely within the Community, Member States shall ensure coordination with the aim of producing a single international river basin management plan'*

and in Article 14 that,

'*Member states shall encourage the active involvement of all interested parties in the implementation of this Directive'*.

In addition, the UN Watercourse Convention[(26)] is a global framework setting the standards and procedures for the cooperative management of international watercourses. The UK is currently considering accession to the Convention. Accession to the Convention is supported by WWF following conclusions drawn in a WWF commissioned report investigating the potential implications of the Convention for the management of their only transboundary water bodies, shared with the Republic of Ireland. This would add a further international level of policy underlying the need to manage cross border water bodies.

Whilst point 3.11 notes the potential benefits from working together at a strategic level to help conserve natural assets, WWF Northern Ireland believe that a greater commitment to working with ROI on the management of cross border water bodies is essential to ensure compliance with Water Framework Directive in achieving improvements in water quality which is stated as a key issue in the current RDS.

In this way, Table 3.1 should reflect how the RDS aim to, "*Strengthen links between north and south, east and west, with Europe and the rest of the world*" will also contribute to the aim to "*Protect and enhance our environment and natural resources*".

Recommendation 4: Commitments to working together at a strategic level should be strengthened by setting out how this will be achieved. This should incorporate working together on issues relating to the management of cross border water bodies, in line with the Water Framework Directive and UN Watercourses Convention.

2.3 Sustainable Flood Management

WWF Northern Ireland welcomes the aim as stated on p.99 to,

"Minimise development in areas at risk of flooding, coastal erosion and land instability"

and to,

"incorporate Sustainable Drainage Systems".

We recommend that this area of work should refer to the Water Environment (Floods Directive) Regulations (Northern Ireland) 2009 and link with the Department of Agriculture and Rural Development's Rivers Agency, the lead authority in Northern Ireland on implementing this Directive.

WWF have significant experience in developing innovative techniques for the management and restoration of rivers and wetlands for the benefit of people and nature. In particular, they have been actively involved in developing solutions based approaches of sustainable flood management. We strongly promote sustainable flood management based on experiences in Scotland and involvement in the development of the Flood Risk Management (Scotland) Act 2009. In particular, we advocate the value of adopting natural flood management (NFM) approaches which offer multiple benefits, for example: NFM is extremely cost effective: By restoring the river's natural ability to cope with flood upstream, the risk to urban areas downstream is reduced, as is the need to pursue hard engineering structures. As NFM techniques are self-maintaining, the maintenance costs are less than the alternatives. Estimates for NFM reveal substantial cost savings compared with traditional schemes. For further information on NFM techniques, WWF Northern Ireland refer to the "*Flood Planner: A Manual for the Natural Management of River Floods*" produced by WWF Scotland[27].

A seminar facilitated by WWF Northern Ireland was held in May 2008, when a range of stakeholders met to discuss how the implementation of the Floods Directive in Northern Ireland could ensure that the damaging effects of floods on human health, the environment, infrastructure and property can be prevented or limited now and in the future. We refer to the report[28] produced from this seminar which provides a list of recommendations which WWF Northern Ireland drew from the discussions. These recommendations cover a range of issues including information dissemination, infrastructure, timing, policy, public awareness, land use planning and links between WFD and Floods Directive, forestry, climate change, funding and North-South considerations.

WWF Northern Ireland is actively engaged with Rivers Agency and other stakeholders in the development of a sustainable flood management pilot study for Northern Ireland. This presents the opportunity to demonstrate and learn lessons from a local project on the benefits of integrating natural flood management approaches as part of a package of measures to tackle flood control.

As part of the Freshwater Taskforce, WWF Northern Ireland responded to the consultation on the draft report "*Managing Stormwater: A Strategy for Promoting the Use of Sustainable Drainage Systems (SuDS) within Northern Ireland*". We support the view expressed in this response that the range of techniques embraced under the banner of SuDS have the potential to bring real long term benefits for people, wildlife and the economy.

In particular, we suggest that SuDS implementation should be supported by legislation to enforce provision and maintenance of SuDS approaches as opposed to traditional drainage systems.

Recommendation 5: WWF Northern Ireland believes that the RDS should support the enforcement of provision and maintenance of SuDS approaches through appropriate legislation.

2.4 Water Pricing

The Water Framework Directive requires Member States to ensure by 2010 that water pricing policies provide adequate incentives to use water resources efficiently and thereby contribute to the environmental objectives of the Directive.

Years of underinvestment in Northern Ireland's water and sewerage infrastructure have led to problems with pollution and significant volumes of leakage. It is essential that adequate funds are available to make necessary improvements to the quality of water and sewerage service provision. This must be accompanied by incentives to reduce water consumption.

WWF advocate the introduction of socially responsible water metering, as stated in the recent report produced by a consortium of organisations including WWF UK,

"The Fairness on Tap coalition believes that we need to move to a fairer charging system based on water metering supported by social tariffs, good customer service and help with water efficiency. This would ensure that water is affordable for all and encourage reduction in water demand, reducing the stress on our environment in the process."

Water metering is proven to increase awareness of water consumption in the home. A study conducted by Southern Water revealed that 62% of metered customers said that they were more careful with the way they use water since having a meter installed.

In addition, using water more efficiently also has additional benefits in terms of household energy consumption. Waterwise produced a report that found that approximately one third of the average UK gas bill goes on heating water for washing dishes and clothes, bathing, showering and cleaning – about £200 a year[29]. Whilst Defra report[30],

"Heating water in homes for cooking, personal washing and cleaning produces 5% of the UK's greenhouse gas emissions and a quarter of CO2 emissions from homes – it is the second biggest use of energy in homes, after space heating, and before gadgets and appliances".

Therefore, in addition to increasing water efficiency, there is also an opportunity to contribute to reducing our carbon footprint and achieving of carbon budgets.

Recommendation 6: The RDS should actively support incentives to ensure increased water efficiency through the introduction of appropriate water pricing mechanisms in line with the requirements of the Water Framework Directive. WWF believe this should be in the form of socially responsible water metering where users pay only for what they use and put an end to the continued wastage of water, energy and public money.

3. Other comments

The meaning of certain points and statements in the draft RDS is unclear, as illustrated by Paragraph 1.4 which says merely

"*Place, where things are and where things happen, can be often overlooked in decision making but it matters to people".*

The many references to sustainability are another potential source of confusion. While WWF Northern Ireland welcomes the stated commitment to sustainability as outlined in paragraph 2.2., on page 12, the use of the word 'sustainable' elsewhere in the consultation document appears to refer primarily to general growth or expansion, and not necessarily sustainable growth as defined in paragraph 2.2. This confusion is illustrated by paragraph 3.5 where the aim for "*strong, sustainable growth for the benefit of all parts of the Region*", suggests the aim is just expansion, which is unlikely to be sustainable in nature, rather than growth based on the principles of sustainability.

WWF Northern Ireland welcomes and supports SG 18, as outlined on page 101 to

"*Conserve, protect and where possible, enhance our built heritage and our natural environment*"

and the aim outlined in the section 5.42 on Natural heritage on page 102 to

"*Identify establish, protect and manage ecological networks*"

The UK has signed up to the principle of ecosystem management in the UK Marine Act, and so it seems reasonable to expect this principle of managing the natural environment on an ecosystem basis to be applied in spatial planning strategies. WWF Northern Ireland welcomes the references made, e.g. in paragraph 5.42 to the new Marine Planning Statement and subsequent Marine Plan. While, as WWF Northern Ireland understands it, the remit of the Department of Regional Development is terrestrial, WWF Northern Ireland believes that these imminent marine plans will need to be an integral part of Northern Ireland's future spatial planning strategy.

Consultation question 4

The hierarchical structure for the environment outlined in Diagram 4.1 is not the most logical. For example, according to Diagram 4.1 it appears to have principal cities as the space where 'Wind farms,

Wave power, Thermal Treatment, and AONB/ASSI' will be based. While thermal treatment plants can and will be located in cities and some AONB and/or ASSI designations can include some settlements, WWF Northern Ireland regards it as unlikely that wave power generation will be located in cities. As such, this hierarchical structure is in need of review and improvement.
Yours faithfully

Malachy Campbell
Policy Officer WWF Northern Ireland

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