

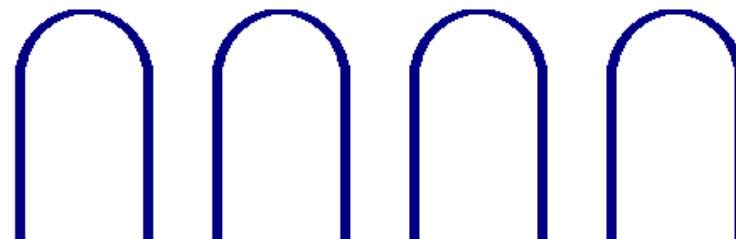
Meath **MASTER** Plan

Sárphlean Chontae na Mí



2+1 THROUGH
THE VALLEY

NAVAN RAIL LINK



Sustainability

To "Sustain" something implies "valuing" it enough to put sufficient effort into maintaining its "integrity" over time (i.e. values and ethics)

Humanity is not free in its choice of material, resource or energy usage, but is limited by the laws of nature and the limits of the earth's resources and ecosystems (dependent relationship)

Sustainability

***Sustainability** is a dynamic equilibrium in the interaction between a population and the carrying capacity of an environment, such that the population develops to its full potential without adversely and irreversibly affecting the carrying capacity of the environment on which it depends.*

Sustainable Development

Is development that meets the "needs" of the present without compromising the ability of future generations to meet their needs.

Sustaining the current system with its destructive development...ecological destruction, resource exploitation and exhaustion, and its social problems...is Not possible due to the impact on future generations and systems.

i.e. Discounting of the Future is self-destructive

Why Sustainability?

2 Examples of the limits of Earth's Capacity are the best reasons to Embrace Sustainability:

Peak Oil

Global Warming

Sustainability is "the" opportunity for our future. Regenerate Local Life: economy & community, Create local self-sufficiency and independence

Peak Oil

- How quickly/easy it is to extract oil – rate of production
- When production of cheap oil declines - soon!

Peak Predictions: IEA: “oil supply crunch” in 2012

87 Gigabarrels / day Global Oil consumption – Feb 2007
or 1,007 barrels per second

Ireland's consumption per capita, 3rd highest in EU 2002

Ireland one of most vulnerable to Peak Oil, twice as
vulnerable as USA (Forfas, 2006)

Global Warming

- Rising Temperatures (regular Heatwaves)
- Rising Sea Levels (more severe Floods)
- Melting Arctic and Antarctic Ice Sheets
- Melting Glaciers (e.g. 95% of Himalayan glaciers retreating)
- Acidification of Oceans – causing species death
- Droughts, Fires
- Early Spring Arrival
- More Irregular weather – more frequent downpours

Impacts: We must move to Sustainability now

Insurance Costs: ***no. of major natural disasters up 300% since the 1960s, and insured losses increased fifteen-fold in real terms.***

When Oil reaches \$100-150/barrel all Business and Farming costs will rise significantly...the supply of all goods and services will be curtailed.

Long-distance shipping & travel, most travel by car, will be unviable due to excessive oil/gas cost
No viable, mass supply, vehicle fuel alternatives

Where we are now...

Nationally:

Global Warming: Ireland warming twice as fast as rest of world (Dr. John Sweeney, NUI Maynooth)

Peak Oil: Heavy dependence on fossil fuel and their imports, while Global Peak Oil predicted for 2012 by IEA.

Locally:

- Very poor Quality of life for local families***
- Vanishing Farming economy / Local economy***
- Over-dependence on FDI for Job Creation***
- Lack of Investment in Local Business***
- Neglect of Water, Public Transport, Education, Health***
- Rises in Business costs – reducing ability to attract FDI***

Where we are now...

National Transport Infrastructure:

Centred on unsustainable mode of transport of which there is continued excess consumption (19% of Irish GHG emissions, 55% world oil consumption, 64% US oil consumption)

The Proposed M3 – legal issues:

- NDP 2007-2013 Illegal Due to lack of SEA and Public Participation***
- M3 Project Illegal due to lack of "2nd-Stage" EIA after Lismullin was found; Original planning process under investigation by EU***
- National Monuments Act 2004 illegal as it does not allow for an EIA for demolitions***

Compromise Solution – **MASTER** Plan

*DESIGNATE REGION WORLD HERITAGE SITE / PARK
(UNESCO)*

*2+1 THROUGH VALLEY & PUBLIC TRANSPORT – RAIL &
COACH; VALLEY M3 USED FOR HERITAGE INSTEAD*

*FULFILLS EU LEGAL REQUIREMENTS, AVOIDS MULTI-
MILLION EURO FINES*

*SOLVES TRANSPORT ISSUES FOR LONG TERM &
PROTECTS HERITAGE WITHOUT RE-ROUTING ROAD*

*SAVES € 300M TO ALLOW CONTRACT BUYOUT;
TRANSPORT BENEFITS OF € 114M pa*

*MODEL FOR SUSTAINABILITY IN BUSINESS, HOUSING,
TOURISM AND HERITAGE PROTECTION*

Meath - **M**odel **A**rchaeological & **S**us**T**ainable **E**conomic **R**egion

Sustainable Agriculture

- ***Agroecology:*** is the science of sustainable agricultural systems (conserve soil, manage ecological relationships -pests, weeds, minimal chemical use)
- ***Elements:*** Agroecology, Certified: (Organic, Biodynamic), Community Supported (CSA), Box Schemes, Markets, Farmers Networks
- ***CSA:*** members pay farmers for seasons supply of vegetables (\$36m /year incomes to US farmers 2002)

Sustainable Agriculture - Benefits

UN FAO findings:

- Organic has already decreased GHG emissions by 29-37 % in USA, and could decrease worldwide GHG by 48-60%***
- Reduces fossil fuel dependency***
- Strengthens farmers rights to seeds/varieties, increases incomes (extra \$50-60 / acre in US), increases production***

University of Michigan study:

- Sufficient Nitrogen from fixation to eliminate all synthetic fertilizer currently used***
- Intensification could increase worldwide production by up to 56%***

Meath - *Model Archaeological & Sustainable Economic Region* ***Sustainable Business Zone***

- Community Bus. Hubs & Local Bus. Incubation***
- Investment Opportunity for Business***
- Long-term Economic / Business Security***
- Sustainable Business Practices (Research & Transition Subsidised)***
- Greatly reduce Business Costs: Production, Energy, Waste & Water Charges, Transport***
- Low Impact Business Lifecycles***

Sustainable Communities / Business Zones

9 COMMUNITIES IN AND AROUND HERITAGE PARK

- Retrofit 5 Existing Communities: Navan, Slane, Kells, Trim, Dunshaughlin***
- Establish 4 New Communities, based on existing settlements (e.g. Kilmessan, Cannistown)***
- Locations connected by Rail, Bus, Road, Heritage Trail***

Using only Sustainable techniques – Construction, Energy, Waste Treatment, Water Use, Food Supply, Transport, Ecological and Heritage Protection

Sustainable Building (Heritage- Stations, Housing, Commercial)



Sustainable Techniques

Construction:

- Eco-cement (low emissions, absorbs carbon)
- Cob (good thermal mass for constant temperature)
- Earth-sheltered (insulated by the earth)
- Woodframe (built as Passive solar)

Energy:

- Biogas from waste for Heat and Power
- Geothermal
- Micro Windpower
- Solar (Photovoltaic cells)

Sustainable / Educational Tourism - Meath World Heritage Park

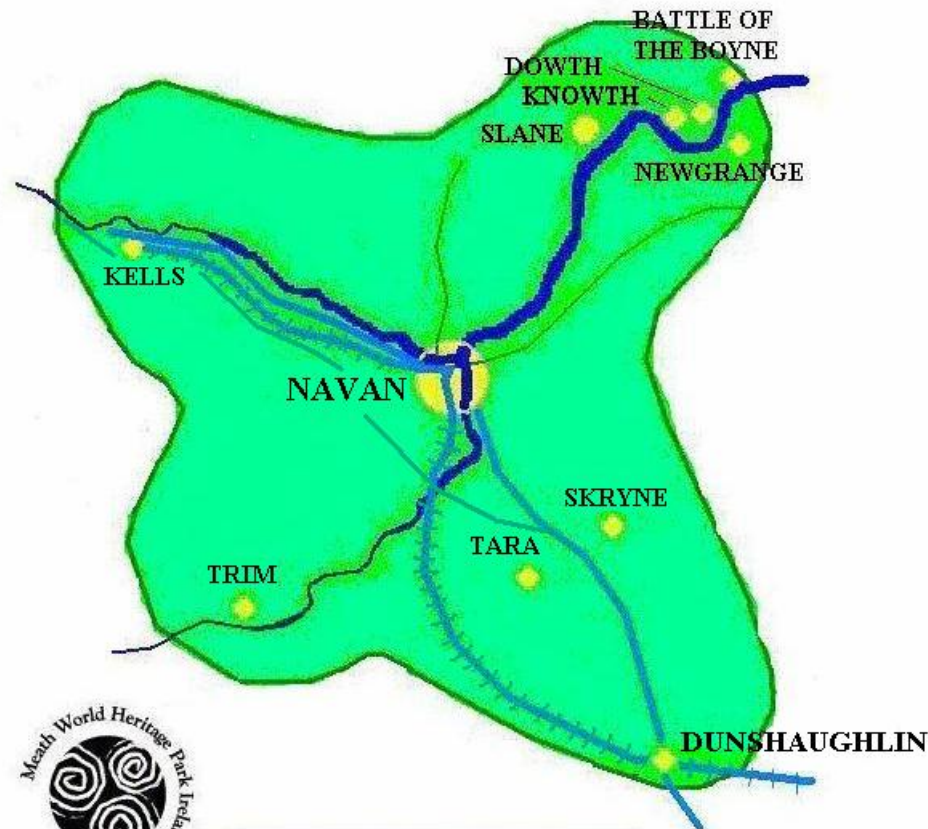
Heritage/Cultural Trails:

*for walking, cycling, horse-riding between sites
and towns (Transport & Tourism benefits)*

"Heritage-Station" Network:

*Model Construction techniques,
Centres for Cycling/Riding Tourism,
Accommodation, Heritage/History
Interpretation & Media, Teaching Traditional
Crafts, Sustainability Training*

MEATH WORLD HERITAGE PARK



Meath MASTER Plan
SÁRPHLEAN CHONTAE NA MÍ

PRIMARY HERITAGE ROUTES

Ring of Tara : Rath Miles – Lismullin – Skryne –
Baronstown - Collierstown – Balpere – Ringlestown Rath –
Rath Maeve

Tara SW Boyne : Dowdstown – Bective – Ennistown –
Trim

Tara NE : Cabragh – Skryne – Realtoge – Carnhill –
Carnuff Great – Painestown – Brú na Bóinne – *Slane Hill*

Tara NE Boyne : Donaghmore – Arcmulchan – Slane -
Brú na Bóinne

Tara NW : Ardrachan – Faughan Hill – Teltown -
Oristown – Headfort Desmesne - *Kells*

HERITAGE PROTECTION

UNESCO Meath World Heritage Park

Intact Archaeological Landscape on State land

Reconstruct Archaeological Sites – Education

Connected by Heritage Trails

Interpretation available in “Heritage-Stations”

Special Area of Conservation (SAC)

HGVs banned from N3 route in valley – subsidised rail use

Green Development Zone: Only small, eco-designed developments in rural area



HERITAGE PARK GOALS

Best Practice Heritage / Landscape Protection

– Protection of the TARA LANDSCAPE in accordance with our obligations under the Council of Europe Landscape Convention (CETS No.176):

This convention states that "Landscape":

– "has an important public interest role in the cultural, ecological, environmental and social fields, and constitutes a resource favourable to economic activity and whose protection, management and planning can contribute to job creation"

HERITAGE PARK GOALS (2)

Commitment to "Landscape Conservation":

"Meath County Council are also committed to the conservation of the Tara Skryne area, another of the prime archaeological resources in the county. This can be seen in its objective to designate this area as a Landscape Conservation Area in conjunction with the Heritage Council."

- Chapter 8, Meath County Council Development Plan 2007-2013

Economic Benefits & Savings

€31 million+ Savings on Energy Costs for retrofitting 53% of homes in Meath

750+ new homes will save € 1.65 million pa

200 New Businesses will save € 3 million pa

**Employment Creation = 2000 – 6000 permanent
(Commercial, Agricultural, Infrastructure, Tourism)**

Yearly Tourism Figures & Revenue :

400,000+ visitors (Brú na Bóinne alone 200,000+)

Extra €75 million+ (based on Failte Ireland figures)

Transport & Sustainability

21 % OF TOTAL GREENHOUSE GAS (GHG) EMISSIONS IN EU-15 FROM TRANSPORT (EXCLUDING AVIATION AND MARITIME)

ROADS ACCOUNT FOR 95% OF TRANSPORT EMISSIONS IN EU

IRELAND: 1990-2004, GHG EMISSIONS ROSE 140%; DOUBLE KYOTO TARGET & GROWING

KYOTO PENALTIES – up to €7 Bn by 2012 (EWEA 2003)

AIR QUALITY – EPA WARNING - €80M pa ILL. EU

CONGESTION COST €1.76 BN PA (ECMT 07 1% GDP)

LOSS OF AGRICULTURAL LAND

PLANNING FOR CARS : HOMES, SHOPPING, SCHOOLS, LEISURE – INCREASES DEPENDENCY

GREATER DEPENDENCY INCREASES COSTS TO MOTORISTS – UP TO 32% MORE (FULL COST TO USER)

M3, 2+1 & RAIL LINK

***BI-MODAL NATIONAL TRANSPORTATION CORRIDOR
(NSS) MODEL APPLIED TO DUBLIN – NAVAN – KELLS***

***PARTIALLY USES EXISTING TRUNK ROAD WHILE
SIMULTANEOUSLY UPGRADING OR RE-OPENING NEARBY
RAIL CORRIDOR, AND UPGRADING COACH SERVICES***

LOW IMPACT FACILITATES HERITAGE PARK ZONE

- ***N3 IN VALLEY CONVERTED TO 2+1***
- ***RAIL TO NAVAN AND KELLS***
- ***FURTHER UPGRADED COACHES (WITH TRAFFIC
SIGNALLING PRIORITY)***

***2+1 THROUGH
THE VALLEY***

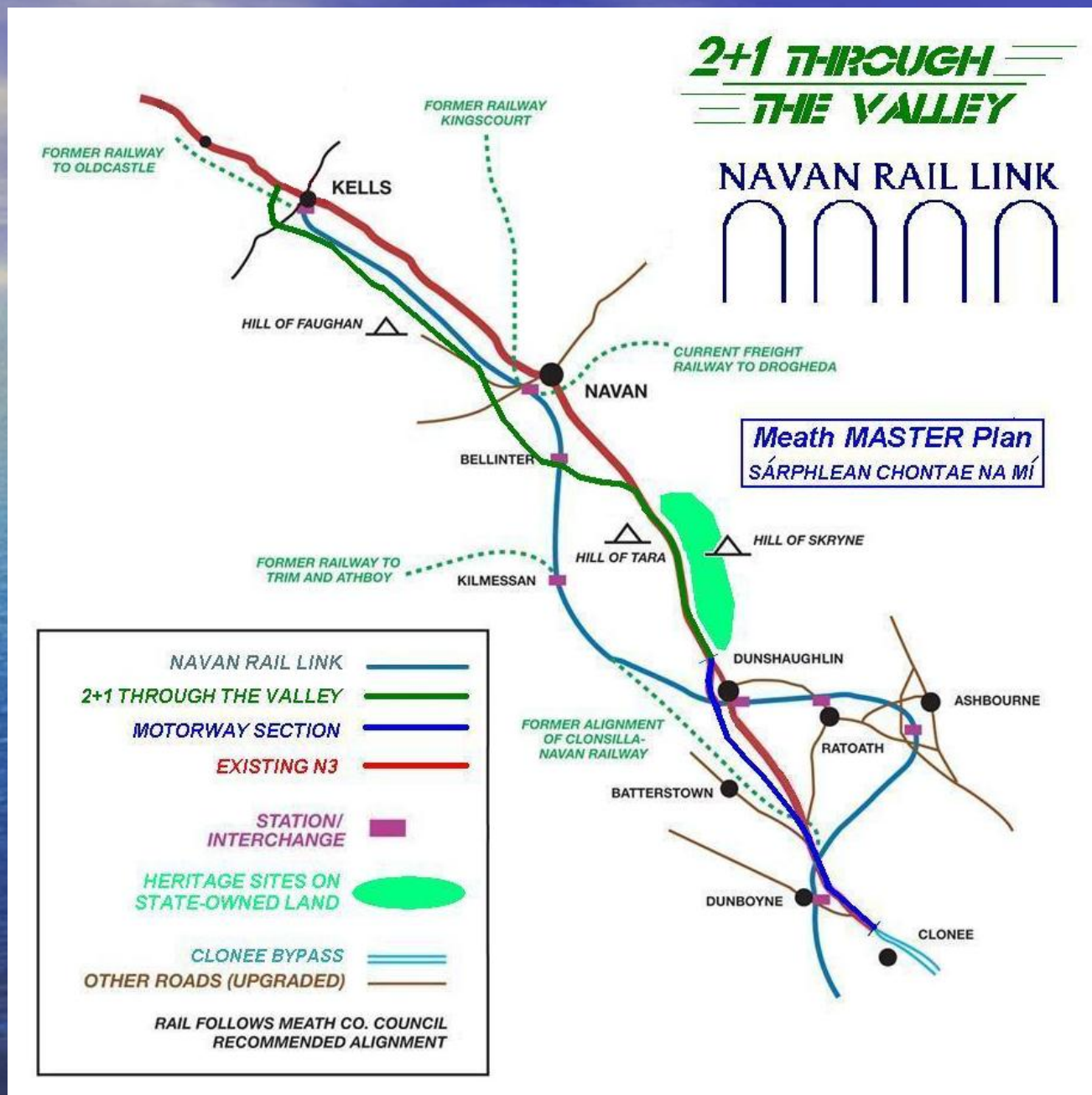
USES M3 ALIGNMENT TO ROESTOWN & TO KELLS

***DRAMATICALLY CUTS TRAFFIC – 1 TRAIN = 360-480
CARS, 1 COACH = 60 CARS***

TRAFFIC COUNTS

	2004 Count	Rail / Coach 1/3 SOV Red.	Rail / Coach 2/3 Red.	2+1 Cap.
Navan S	18945	12630	6315	17500
Dunsh. N	18153	12102	6051	17500
HGV 7.6%				
				2+1 & N3 Cap.
Kells S	12992	8661	4331	28500
Navan N	19688	13125	6563	28500
HGV 10.5%				
				M-way Cap.
Dunsh. S	28042	18695	9347	55000
HGV 10.3%				
		Excl. Live Work Meath	Excl. Live Work Meath	

LAYOUT



2+1 ROAD DESIGN





VEHICLES



TRANSPORT COSTS & BENEFITS

€1.2 Bn est. COST ROAD+RAIL+T (M3+RAIL+T=€1.5 Bn)

ESTIMATED BENEFITS OF €114 MILLION pa

*CAPITAL COST REPAID IN 10 YEARS, TOTAL INCLUDING
ESTIMATED OPERATING COSTS REPAID IN 12 YEARS*

*REMOVES UP TO 2/3 TRAFFIC, CUTTING AADT AND
ALLOWING USE OF 2+1 FORMAT FOR M3 BETWEEN
ROESTOWN AND KELLS*

*NO TOLLS, UP TO 2/3 LESS TO USE pa THAN CURRENT M3
HIGH-QUALITY RAIL, COACH & MINIBUS*

TRANSPORT COSTS & BENEFITS (2)

BENEFITS MOTORISTS AS THEY GET UPGRADED ROAD PLUS LESS TRAFFIC, MAKING DRIVING SAFER & LESS STRESSFUL

FUNDS OF c.€300 MILLION FREED UP FOR CONTRACT BUYOUT

CRUCIALLY – ENCOURAGES LOCAL TRANSPORTATION TO REDUCE COMMUTING – NEW JOURNEY POSSIBILITIES (e.g. KILMESSAN – ASHBOURNE, KELLS – NAVAN, etc.)

SUMMARY

Efficient, Sustainable Transport System

Integrated Rail, Coach, 2+1

**Protect Meath's unique heritage to increase
Tourism revenue & Knowledge of Irish
Heritage**

Meath World Heritage Park

World-class model of sustainable tourism and heritage,
sustainable transport and sustainable construction.

SUMMARY

Ensuring long-term Business Viability & Economic Investment for Meath, through:

greatly reduced internal & external costs:

lower energy, waste, water, transport costs + less fossil fuel dependency, reduced CO2 emissions, locally-sourced renewable materials & energy

Major Quality of Life Improvements:

reduced commuting times, reduced stress, improved employee health and well-being (fewer sick days), more cohesive family and community units, stronger local identity