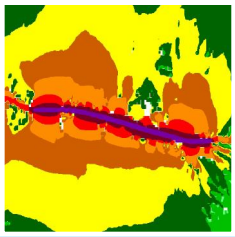


# Noise Mapping to Action Planning: The Road Ahead

Brendan Kennedy – Network Management Section, NRA  
Eoin King - Environmental Section, NRA

# Noise Mapping to Action Planning



## Role of NRA in Noise Mapping

EU Directive 2002/49/EC transposed into Irish Law as SI 140 of 2006.

Clearly Identifies Noise Mapping Bodies & Action Planning Authorities.

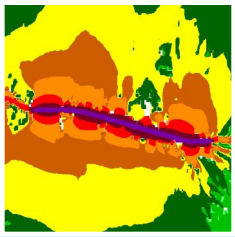
- NRA responsible for major roads (National)
- Local Authorities responsible for major roads (regional/local)

NRA is a Noise Mapping Body **NOT** an Action Planning Authority

Responsibility for developing and approving Action Plans rests with Local Authorities in consultation with NRA.

Consultation with NRA is vital in ensuring a harmonised approach to the development of Noise Action Plans across all Local Authorities

# Noise Mapping to Action Planning



## Summary of Actions to Date

Originally identified sections of major roads (National) that met the criteria for Noise Mapping

April 2005 contacted DoS in all LA's

May 2005 held workshop @ NRA Conference, outlined responsibilities.

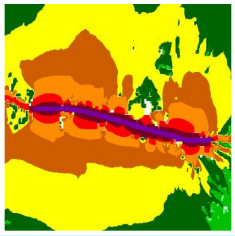
- Identified Local Authorities affected
- Started the process of acquiring necessary data for Noise Modelling
- Project team of 5, last 6 months of project 2 people full time

Additionally the Major Roads (Regional/Local) were also incorporated into NRA noise models

- LA supplied data necessary to run model

Number of assumptions made in relation to data based on EU Good Practice Guide

# Noise Mapping to Action Planning



## Noise Modelling Software:

### LimA

Customised version for road traffic noise under licence

Includes NRA adapted back-end correction

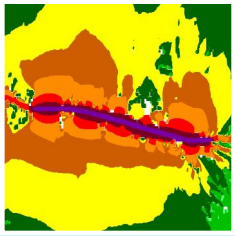
Estimate approx 15 weeks continuous modelling run time



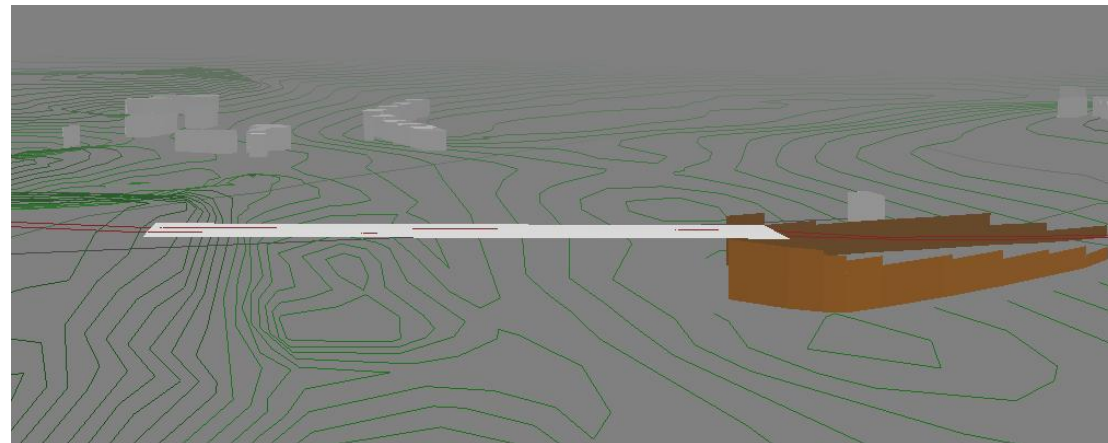
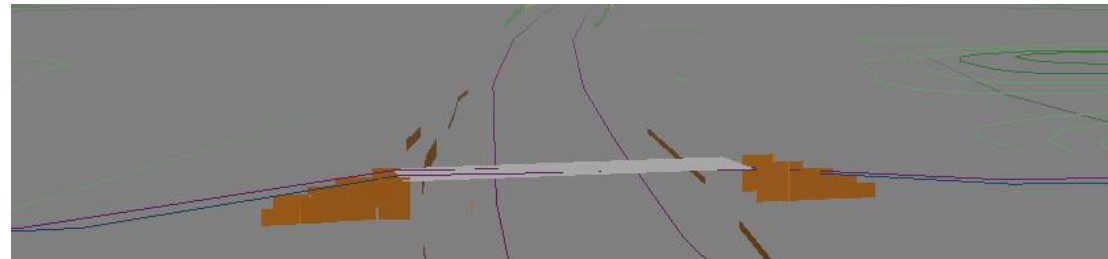
### LimaArc

Provides a direct link between LimA and ArcGIS

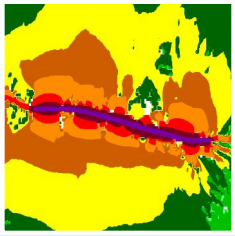
# Noise Mapping to Action Planning



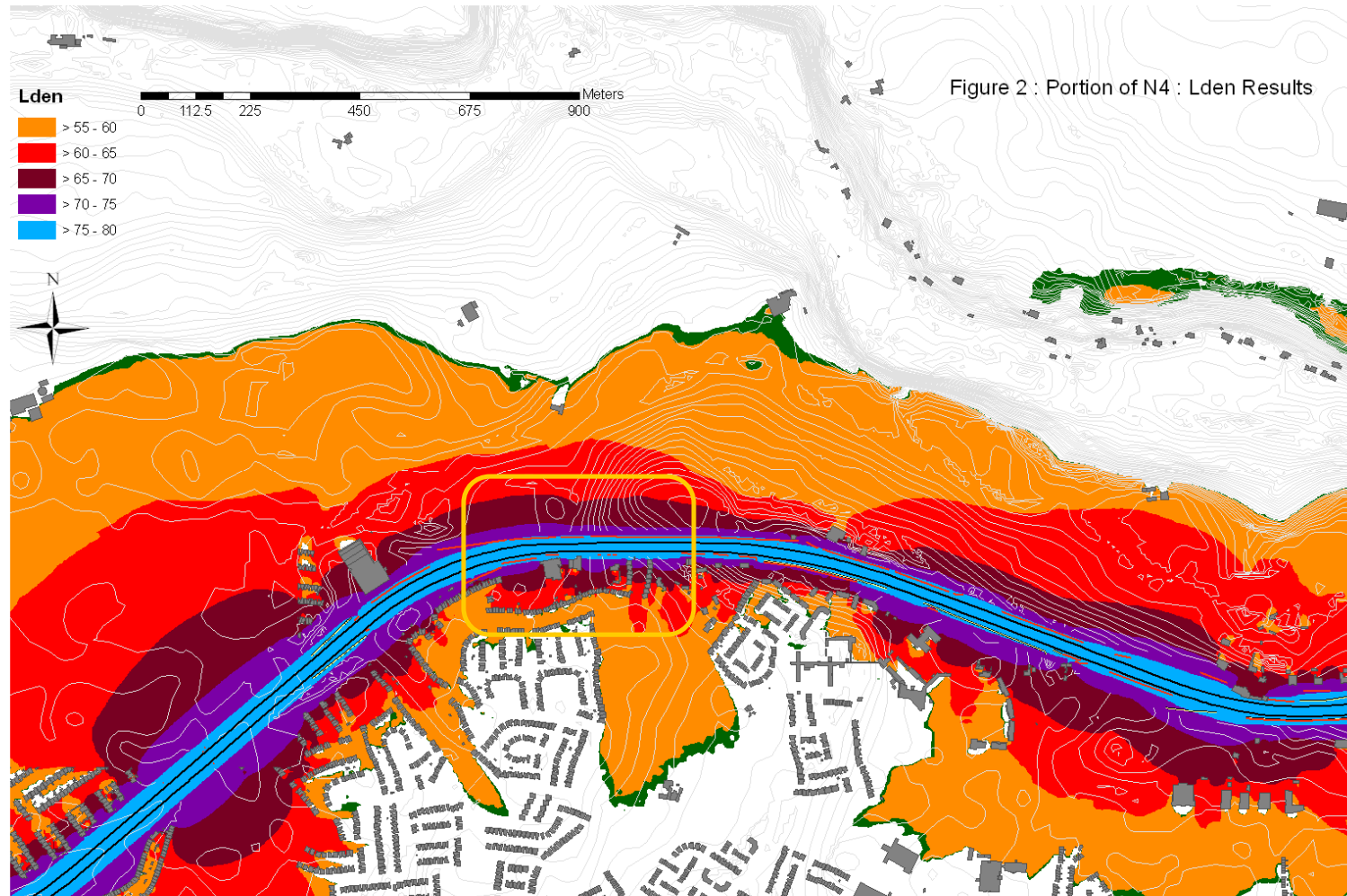
## Building a Model : Some Examples

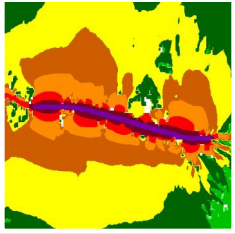


# Noise Mapping to Action Planning

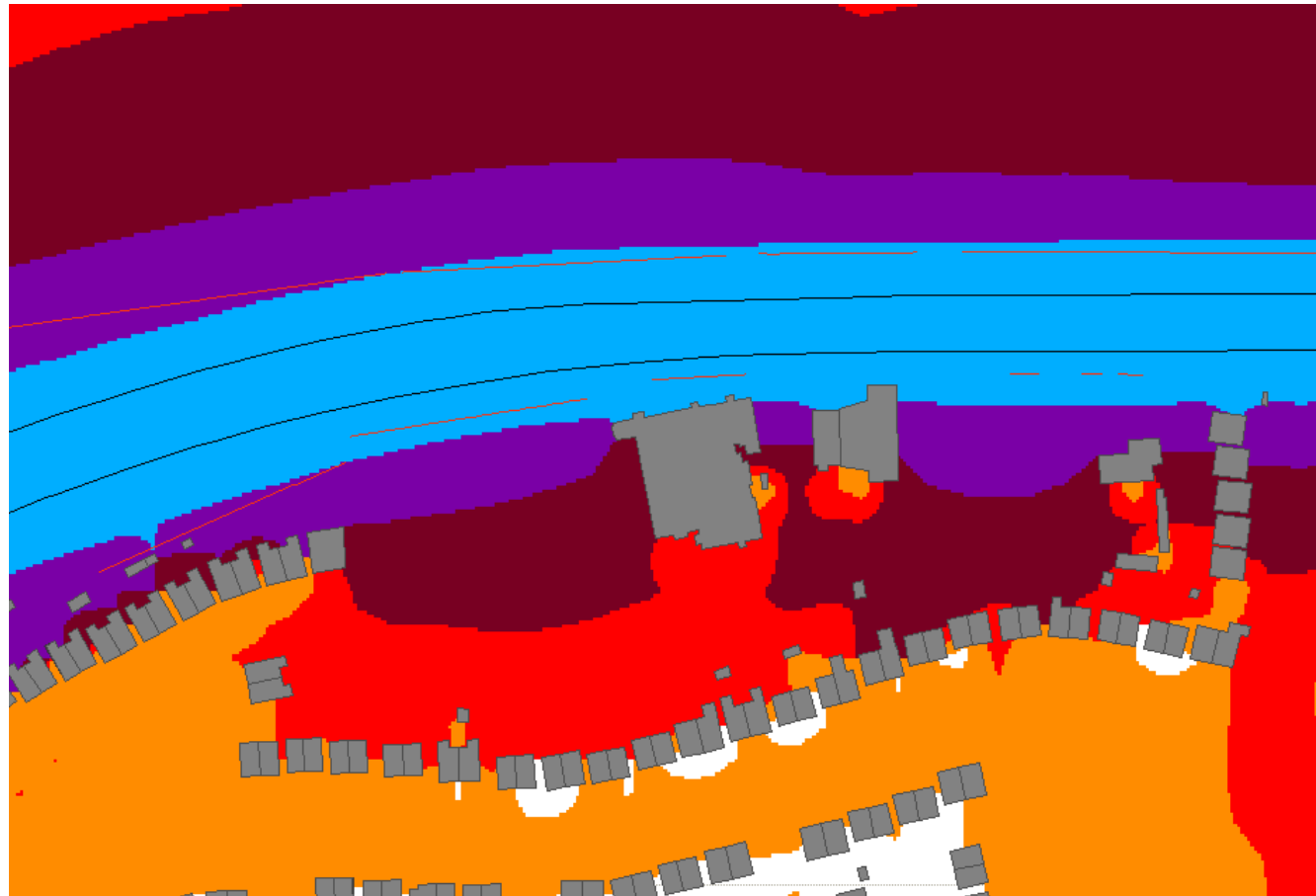


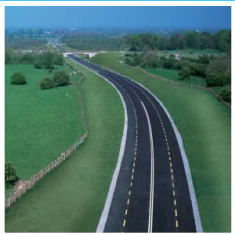
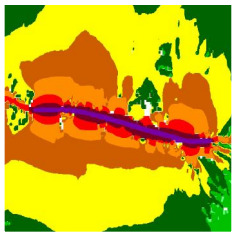
## Results



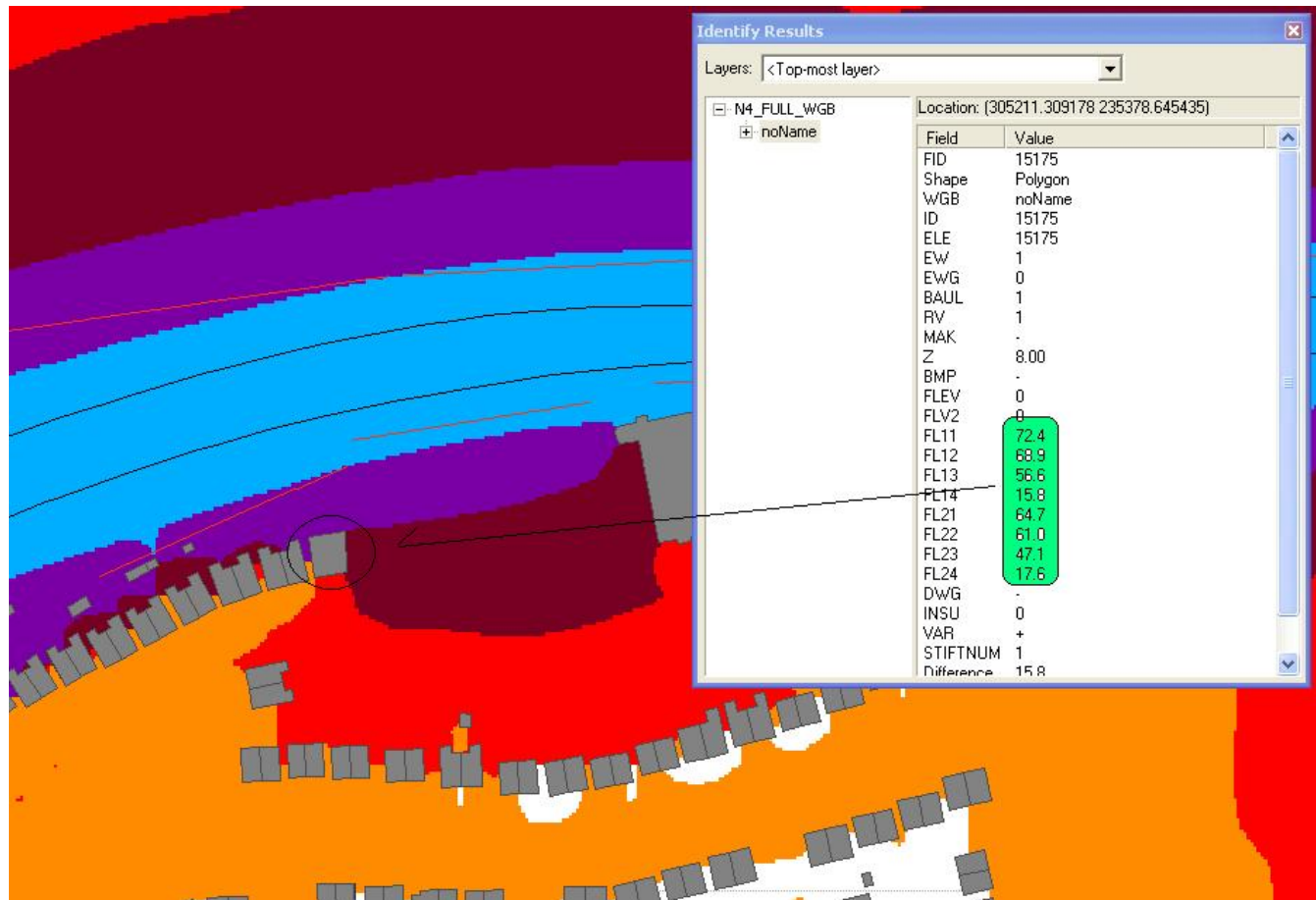


## Results

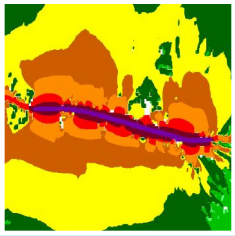




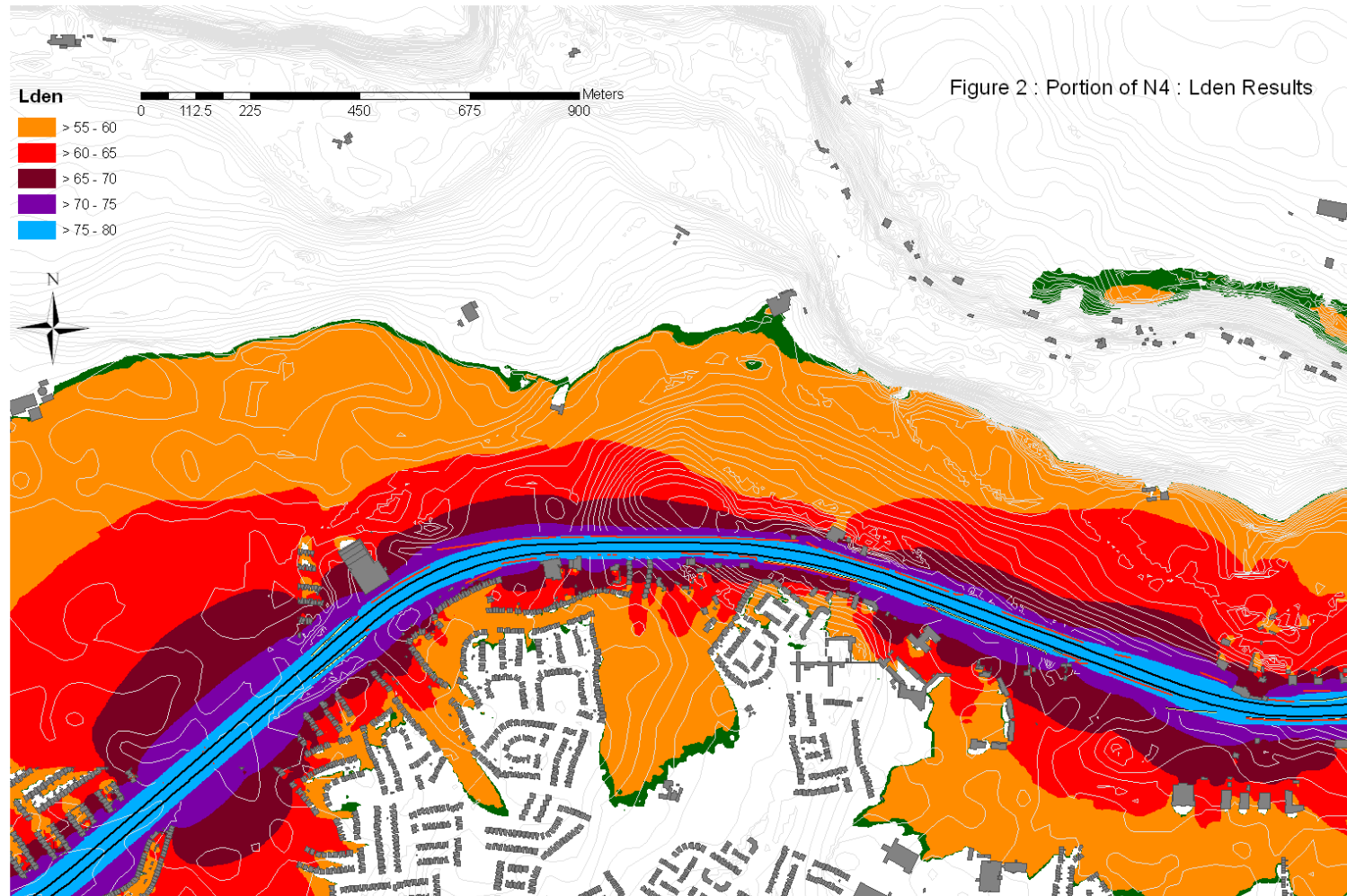
# Results



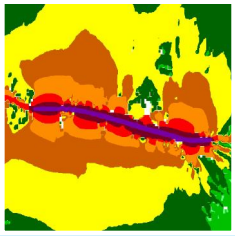
# Noise Mapping to Action Planning



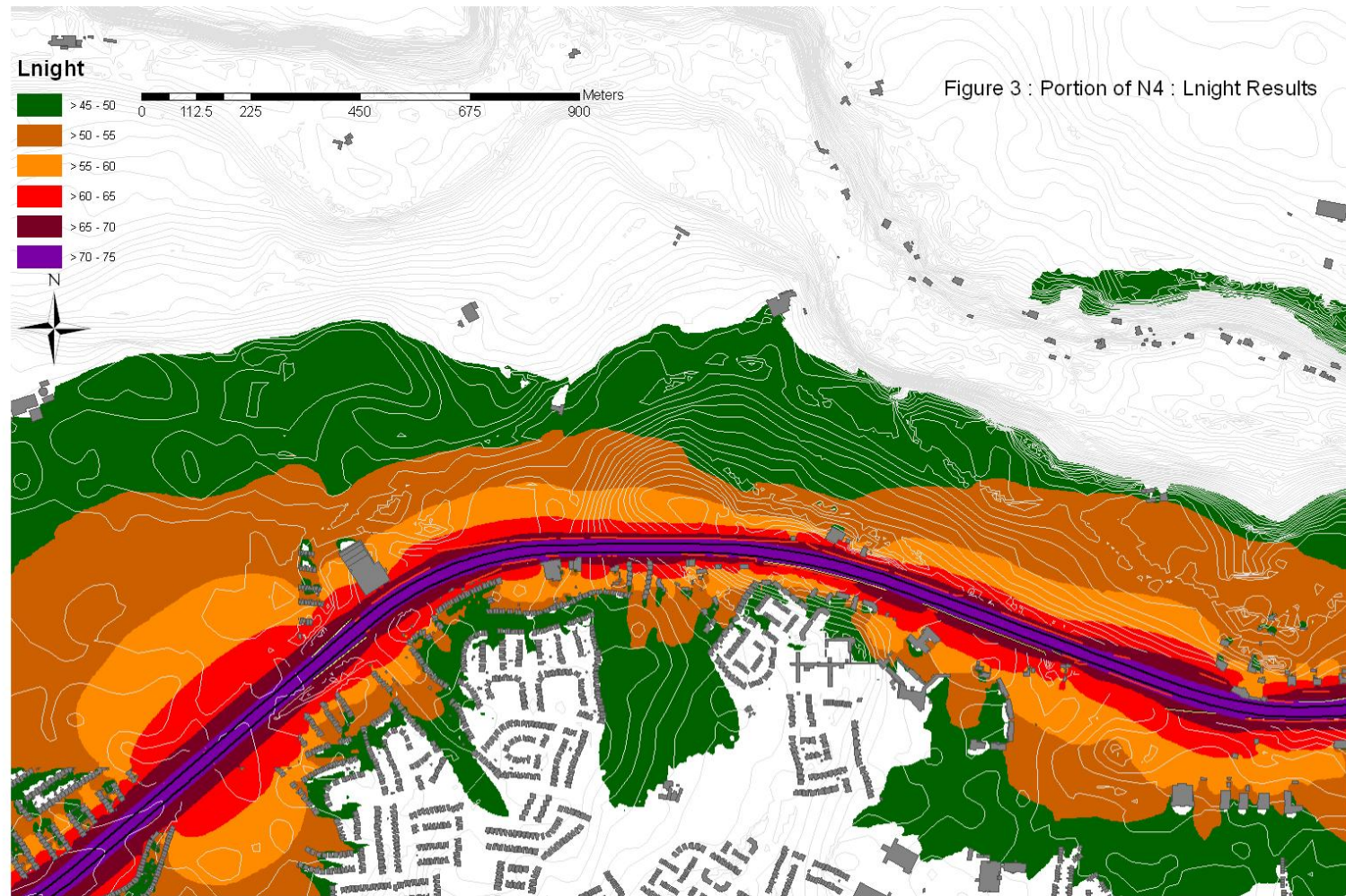
## Results



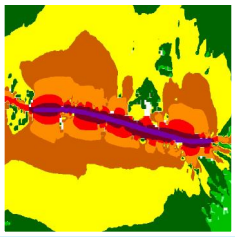
# Noise Mapping to Action Planning



## Results



# Noise Mapping to Action Planning



## Action Planning

Completion date for Action Plans is **18<sup>th</sup> July 2008**

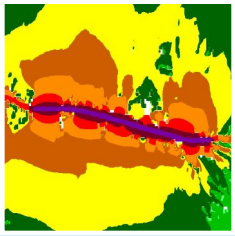
This is 1<sup>st</sup> round of Noise Mapping, 5 year cyclical program

Fourth Schedule of SI 140 of 2006 sets out the minimum requirements for Action Plans

Advocate a common approach to developing Action Plans

- Consider a holistic approach to Action Planning
  - Assess various functions of LA and how each impacts noise
  
- Action Planning should be a consideration of a range of noise reduction measures
  - Perception that Noise Barriers are the panacea to all road related noise problems. **Not the case !**

# Noise Mapping to Action Planning



## Action Planning needs to consider

### Policy, sustainable development initiatives

- Early consideration of noise is vital

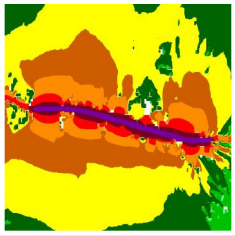
### Spatial Planning, NDP, LAP etc

- Noise to People / People to Noise

### Technical Initiatives at Road Level

- Possible action for current situations but not a policy for the future

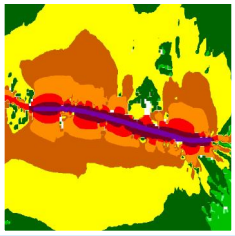
# Noise Mapping to Action Planning



## Action Planning – Examples at Planning/Policy Level

- **Consider overall planning process**
  - **Ensure the planning process at LA level in ‘noise aware’**
  - **Lobby for building regulations to consider noise**
  - **Push developers to consider acoustic issues (e.g. soundscapes)**
- **Policy should consider...**
  - **Lobby EU to tighten requirements for tyre noise**
  - **Change of building use**
  - **Low noise public transport**
  - **National Spatial Strategy, Decentralisation etc...**

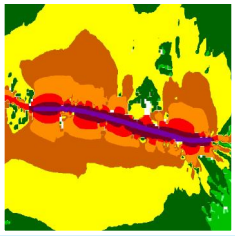
# Noise Mapping to Action Planning



## Action Planning - Examples at road level

- **Transport 21**
  - Sections of new roads being built bypassing urban centres throughout the country
  - Public transport initiatives as part of T21
- **Road Surface Renewal**
  - Consideration of acoustic properties
- **Traffic Management**
  - HGV Bans
  - Pedestrian Only Streets
  - Speed Restrictions
  - Time Restrictions
- **Noise Barriers**

# Noise Mapping to Action Planning



## In Conclusion....

### Common Approach to Action Planning

- Lead agency influences the LA Action Plan resulting in standard approach

### Numerous Noise Reduction options available

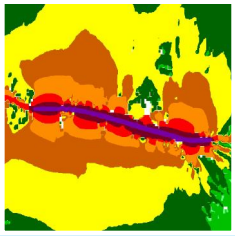
- Consider all available options not just the quick fix solution
- Start planning ahead

### No National Limits at present

- Current design goal for new roads of 60dB  $L_{den}$  not suitable as a “retrofitted” aspiration

**By end of 2008, estimates of major roads for 2012**

# Noise Mapping to Action Planning



**Thank  
You**