

# HEALTH IMPACT ASSESSMENT

# DOVE GARDENS





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ISBN: XXXXXXXXXX

## Dove Gardens Health Impact Assessment

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Published by the CAWT Health  
Impact Assessment- A cross border  
approach project.

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We would like to thank all those who contributed to this HIA and the production of this report including the following

Northern Ireland Housing Executive personnel: Brendan Adams, Carita Burke, Anthony Lavery, Derek Thompson, Graham McClelland, Robert Thompson, Joe Fray, Hazel Faithful.

### Acknowledgments

Community Representatives: Catherine Rushe, Yvette Carr and Myra Bonner.

Also Dr Caroline Mason, Public Health Department WHSSB. Colm Barton, Bogside & Brandywell Initiative Tony Doherty, Bogside & Brandywell Health Forum. Thomas Carlin North West Housing Association. Brendan Bonner, Investing for Health. Liam McAllister, Derry City Council. Maria Herron, Derry Children's Commission.

A special word of thanks to all of the local residents who took the time to participate in the appraisal workshops.

Also, thanks to the staff of the Gasyard Centre for providing child care, hospitality and a venue for the Steering Group to meet.

We would like to thank the local community artist Abbey O'Liveria and local youth workers Dominic Bonner and Jim Collins who facilitated the appraisal workshop with young people from the area

We gratefully acknowledge the participation of local workers and political representatives in the appraisal workshops.

Thanks also to the staff of Dove House for facilitating the community briefing session.

We acknowledge the assistance of Tom Doherty, WHSSB information team, for his assistance in the production of the Health profile.

We are very appreciative of the European Union financial support secured by Co-operation and Working Together (CAWT) for this cross border health and social care project. The CAWT Health Impact Assessment (HIA) project is part financed by the European Union through the INTERREG IIIA Programme for Ireland/ Northern Ireland 2000 - 2006' under Measure 3.2 Health and well being. The Department of Health, Social Services and Public Safety in Northern Ireland and the Department of Health and Children in the Republic of Ireland are the joint implementing bodies for this measure.



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This report details the findings of a Health Impact Assessment (HIA) carried out on a housing redevelopment project in Derry in 2005. The HIA was carried out by Co-operation and Working Together (CAWT) in partnership with the Northern Ireland Housing Executive, local community groups and representatives from statutory and voluntary sectors in the context promoted within the Investing for Health Strategy.

### Foreword

HIA facilitates cross-sectoral working and has a particular focus on Health Inequalities. It requires participating organisations to consider the impact on health of a particular project (in this case a housing redevelopment) or program and influence the project so that the health of affected communities is improved as a result.

I am very pleased that the CAWT HIA project was able to undertake this work. The first phase of the CAWT project consisted of multi-agency training in HIA that was the catalyst for bringing together the different agencies to undertake and complete this HIA.

The report contains a huge amount of information about the needs and difficulties faced by families and residents living in Dove Gardens. It identifies strategies that could improve the health experience of people living in the area. It contains a challenging agenda for services planners in a range of statutory providers from health, housing, planning and also community groups.

I would like to thank all the people who have contributed to this HIA in particular the local residents, along with Community, Voluntary and Statutory workers who formed the steering group. I would also like to thank the young people, local residents and workers who attended the appraisal workshops and provided the evidence that has influenced the recommendations in this report.

### Dr Brid Farrell

Chair, HIA Steering Group Dove Gardens Redevelopment Project



Health Impact Assessment (HIA) has been defined as *“a combination of procedures, methods and tools by which a policy programme or project may be judged as to its potential effects on the health of a population and the distribution of those effects within the population”*<sup>(1)</sup>

## Executive Summary

This report describes a prospective Health Impact Assessment of a NIHE proposal to demolish and redevelop a housing estate Dove Gardens. This estate comprises 79 dwellings in the Brandywell ward in Derry.

The proposal to demolish and rebuild Dove Gardens was considered a good candidate for HIA because:

- The estate is situated in one of the most deprived electoral wards in Northern-Ireland.
- HIA provided an opportunity to involve the people and communities most directly affected by the proposal.
- HIA offered an opportunity to maximise benefit from the investment by examining the proposals potential to influence a range of health determinants including Crime and safety, Quality of environment and Educational achievements.
- It provided the opportunity for different agencies to work together to consider design for a healthier environment.

The HIA was overseen by a steering group made up of local residents, statutory, community and voluntary groups.

**Screening** The redevelopment proposal was screened using the screening tool developed by the Institute of Public Health in Ireland (10). This tool provided a structured guide to identifying potential positive and negative health impacts and their distribution within target populations. The result of the screening exercise was agreement to proceed with a full HIA.

**Scoping** The steering group agreed the boundaries for the HIA, identified the work programme, timetable and terms of reference for the HIA.

**Appraisal** Evidence was collected to assess the health impacts of the redevelopment proposal from:

1. Health profile
2. Literature review
3. Local opinion gathered at four appraisal workshops

The information collected at the appraisal workshops yielded a total of 208 impacts across the 6 major impact categories and 22 sub domains which were summarized into 37 impact statements.

**Forming recommendations** The steering group made recommendations based on the 37 impacts statements. This resulted in 35 recommendations for the planned redevelopment.

The recommendations relate to

1. Environment
2. Homes and Housing
3. Built Environment
4. Sense of Community
5. Service Provision
6. Health awareness
7. Creating Local Jobs and skills
8. Partnerships

**Monitoring and evaluation** Monitoring and evaluation involves assessing

1. Were the impacts identified accurate.
2. Were recommendations implemented
3. How were stakeholders engaged with the HIA.

**Conclusions** This work placed consideration of health impacts at the centre of the proposed redevelopment. Decision makers, local resident and those with an interest in the redevelopment were represented on the steering group. The group identified a range of impacts based upon local knowledge and evidence from elsewhere. The involvement of decision makers has ensured that the recommendations are achievable within restraints of the current proposal.

An Implementation Group has been formed whose remit is to monitor and influence the outworking of the recommendations. This group is made up of decision makers, local community workers their statutory colleagues and residents.

As a direct result of this HIA two local residents have been invited to become members of the NIHE design team the residents are members of the Implementation Group and were involved with the HIA steering group.

This work has had impacts beyond the site of the HIA; debate has begun in the NIHE about the merits of mainstreaming HIA approach to rebuilds and redevelopments helping to raise the profile of HIA as an effective tool in planning.

The HIA is used as a case study in the CAWT one day training event which aims to build capacity in this area.

The HIA enabled residents to influence the design of their houses and lay out of the estate with a view to maximising the potential benefits and eliminating or reducing the negative health consequence.

Engaging local resident with HIA process has contributed to building a sustainable community infrastructure.

Health Impact Assessment (HIA) has been defined as *“a combination of procedures, methods and tools by which a policy programme or project may be judged as to its potential effects on the health of a population and the distribution of those effects within the population”*<sup>(1)</sup>

## 1.0 Background

HIA represents a new approach to the evaluation of social, economic and environmental policies, programmes and projects. It is recognized by Article 152 of the Amsterdam Treaty which calls for the European Union to examine the possible impact of major policies on health<sup>(2)</sup>. HIA in Ireland is endorsed by Investing for Health (Northern Ireland)<sup>(3)</sup> and Quality and Fairness (Republic of Ireland)<sup>(4)</sup> as a means of improving the health benefits of new proposals at policy, programme or project level.

HIA is concerned with the impact a policy programme or project will have upon a defined population or sub groups within a population. The purpose of HIA is to increase awareness of the health implications of new policies, projects or programs with a view to maximising potential health gain.

The underlying values for HIA<sup>(1/5)</sup>

- should take account of the distribution of impacts within a population
- promotes sustainable development
- recognize the need for differing ‘types’ of evidence

- should ensure that all evidence is used in an ethical manner
- has an explicit focus on equity and social justice
- uses a multidisciplinary, participatory approach
- uses qualitative as well as quantitative evidence
- promotes an openness to public scrutiny

**1.1 HIA Stages** There are 5 stages in a HIA

1. Screening determines whether or not to undertake a HIA.
2. Scoping sets the boundaries and terms of reference for the HIA.

## HIA STAGES

SCREENING

SCOPING

APPRAISAL

DEVELOPING  
RECOMMENDATIONS

MONITORING &  
EVALUATION

Table 1. HIA Stages.

3. Appraisal involves gathering the evidence and identifying the positive and negative health impacts associated with the policy programme or project.
4. Forming recommendations based on the impacts plus evidence identified at the appraisal stage.
5. Monitoring and evaluation involves examining the HIA's contribution to the decision making process and its contribution to improved health and equity.

### 1.2 Co-operation and Working Together

**(CAWT)** CAWT was established in 1992 when the Health Boards that work along Ireland's internal land border signed the Ballyconnell Agreement <sup>(6)</sup> committing them to co-operation to improve the health and social wellbeing of their resident populations.

The CAWT Public Health sub-group identified HIA as an area that could be developed on a cross border basis. CAWT was successful in obtaining European Union funding through the INTERREG IIIA program.

There were two main objectives to the CAWT HIA project.

- To build capacity in undertaking HIAs in the border region
- To undertake a number of pilot HIAs.

### 1.3 The Regeneration Project HIA - How it came about

CAWT developed and ran a series of one day HIA training events in 2005 across the CAWT region which were attended by representatives from the statutory, community and voluntary sectors. As a result of this training the CAWT HIA project was approached by the West Area Planner from the Northern Ireland Housing

Executive (NIHE) to consider undertaking a HIA of a housing regeneration project planned for Derry. This was agreed with the CAWT HIA project board in partnership with the NIHE and permission to proceed was obtained from both Departments of Health.

**1.4 The Dove Gardens Scheme** Dove Gardens is part of the Brandywell electoral ward located on the periphery of the Bogside, less than 1 mile from Derry City centre. It consists of 76 dwellings built in 1966.

A NIHE Project Team was established in March 2003 to develop proposals to address the physical deficiencies of Dove Gardens.

The deficiencies of estate design identified by the NIHE project team included:

- Communal access- through routes via open public stairwells and deck
- No defensible space- this term refers to the space between a dwellings front door and the street. The front doors of the upper storey maisonettes open directly on to a public deck.
- Poor cloths drying and rubbish disposal facilities- bin chutes and cloths drying areas were communal, creating a potential health hazard. Drying areas provide little or no security for clothes and were considered unsafe at night.

The NIHE project team also identified problems with anti-social behaviour and a poor surrounding environment. The report cited the changing nature of the NIHE waiting list as a contributory factor to the decline of the area. Review of occupancy showed the increasing number of vacant

properties let to single occupants. The report describes a clash of lifestyles between family units and single occupants. The report pointed out the difficulties in letting properties to family units as the area was not viewed as desirable.

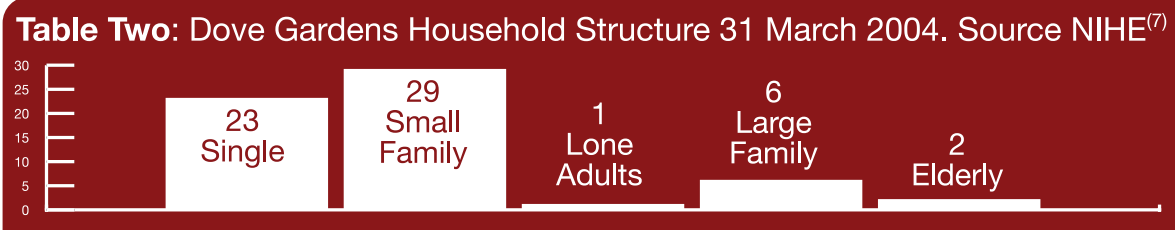
In December 2003 several options for the regeneration and redevelopment of Dove Gardens were put to local residents and their political representatives. Their unanimous decision was for complete demolition and redevelopment.

Dove Gardens was originally built to accommodate small to medium family units. The household composition in March 2004 showed that single occupants and small family units made up over 80% of households.<sup>(7)</sup>

Within the Brandywell and Bogside areas there are several Community Initiatives organized by a range of bodies e.g.

- Bogside & Brandywell Initiative (BBI)
- Bogside & Brandywell Health Forum- a healthy living centre
- Bogside & Brandywell Woman's Group
- The Gasyard Trust
- Dove House.

Research previously undertaken by the NIHE<sup>(8)</sup> indicated that the majority of Dove Garden tenants were not interested in



joining a tenant or resident type group and the majority reported that 'nothing would encourage them to join'

At the time the HIA was being planned the decant of residents was already underway and approximately 45 % of the residents had moved to other areas. A complete decant of residents before demolition was planned.

**1.5 Why do a HIA on Dove Gardens redevelopment?** The proposal to demolish and rebuild Dove Gardens was considered a good candidate for HIA screening because:

- The estate is situated in the Brandywell electoral ward one of the most deprived in Northern-Ireland.
- The proposal could be influenced at the design stage.
- HIA offered any opportunity to explore the evidence base for the relationship between housing and health and encourage decisions makers to take account of any effects on health their decisions may have.
- HIA provided an opportunity to involve the people and communities most directly affected by the proposal.
- HIA had the potential to enhance the co-ordination of action to improve health across various sectors.
- HIA offered an opportunity to maximise benefit from the investment by examining the proposals potential to influence a range of health determinants including crime and safety, quality of environment and educational achievements.
- HIA provided a structured framework for the investigation and discussion of health impacts and the identification of more impacts compared to not doing one.
- The CAWT HIA project had the necessary resources to carry out the HIA..



A screening exercise was held to determine whether a HIA of the regeneration of Dove Gardens should be undertaken.

## 2.0 Screening

A screening tool developed by the Institute of Public Health in Ireland was used<sup>(10)</sup>. This tool provided a structured guide to identifying potential positive and negative health impacts and their distribution within target populations.

**2.1 Screening Process** A letter of invitation was sent to a wide range of stakeholders inviting them to attend a screening exercise, 19 people participated. The letter of invitation is in Appendix 1.

The detail of the screening exercise is included in Appendix 2

The outcome of the screening exercise was agreement to proceed to undertake a HIA of the regeneration of Dove Gardens.

Residents present at the screening exercise were unanimous in their concern that the HIA should not delay the demolition and rebuilding of their neighbourhood.

The North West Housing Association (NWA), the agency responsible for building the new homes, stipulated that the recommendations needed to be in place for the 31st of December 2005 if the HIA was to have maximum impact upon the design brief (approximately four and a half months from date of screening exercise).

**2.2 Building capacity for stakeholder to engage with HIA** Participants at the screening exercise were invited to attend the one day HIA training organised by CAWT. Several NIHE staff and NWA staff attended. Unfortunately none of the local residents were able to attend. A shorter version of the HIA training was offered in a

local community centre which was attended by six local residents.

Several briefing sessions were held with local youth workers and the community artist who helped to facilitate the appraisal workshops with young people from the area.

## 2.3 Establishment of Steering Group

A Steering Group was established with representation from the three main stakeholder groups (Appendix 3).

1. Those most affected by the proposal i.e. local residents
2. Those concerned or interested in the proposals impact: e.g. statutory, voluntary and community sectors.
3. Those expected to act on the findings of the report i.e. the decision makers (NIHE and NWA).



Scoping involved the steering group identifying the work programme, timetable and terms of reference for the HIA.

### 3.0 Scoping

The scoping checklist developed by Ison was used.<sup>(11)</sup>

#### 3.1 Objectives of the HIA

1. To influence the design for the regeneration of Dove Gardens.
2. To improve the health and well being of people living in Dove Gardens and surrounding areas.
3. To promote community participation to enable local communities to contribute to and influence the decision making processes as they impact on their community.
4. To communicate the work of the Steering Group to all stakeholders in the regeneration project.

#### 3.2 Values & guiding principles for the HIA

1. Transparency
2. Participation
3. Inclusiveness
4. Valuing all evidence
5. Open communication
6. Capacity building for stakeholders
7. Empowering
8. Managing expectations
9. Holistic approach
10. Investing in Social Capital

#### 3.3 Elements of the proposal to be appraised

1. Demolition phase:
  - Impact on surrounding areas
  - Vacant properties
  - Vacant site
2. Design of new dwelling and estate layout impact on different
  - Age groups
  - Housing structure & composition
  - Gender
  - Returning population
3. The wider environment as part of design and estate lay out
4. Construction phase of redevelopment
5. Reintegration of the returning population

**Output of HIA** A series of recommendations based on best available evidence that would maximize the positive impacts and minimize the negative health impacts of the regeneration project

#### Non-negotiable aspects of HIA

1. Timescale for production of the recommendations
2. Decant of the Dove Gardens residents
3. Demolition of the Dove Gardens estate
4. The NIHE had given a commitment to build a least 54 replacement dwellings. This reflected the number of residents who had requested re-housing in the new development
5. Building and Planning Regulations as set by statutory authorities

### **3.4 Documentation to be considered during appraisal stage**

1. Literature Review
2. Local information including routinely collected data e.g. Census & adhoc surveys
3. Information from appraisal workshops

### **3.5 Target groups for the appraisal**

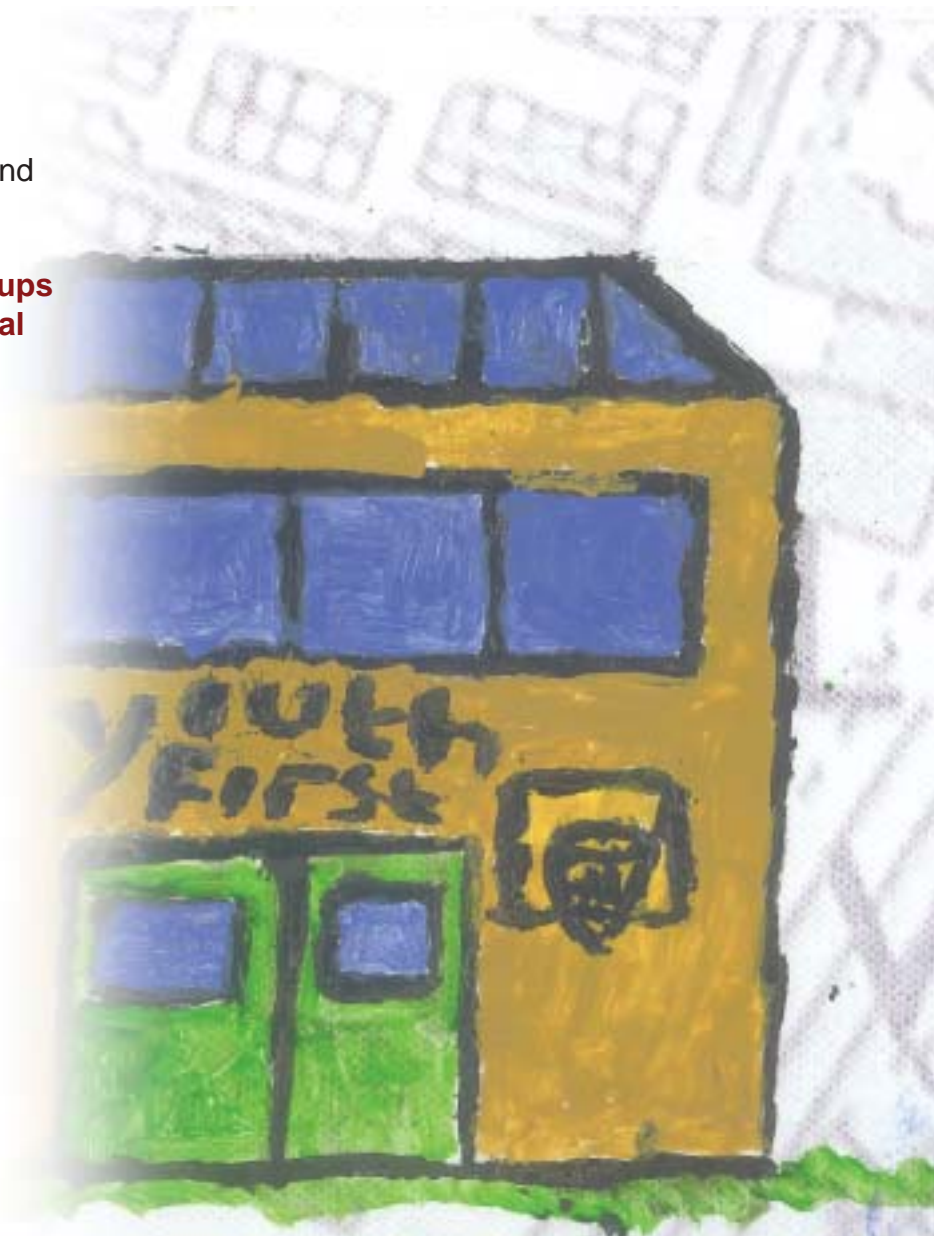
1. Returning population
2. Neighbouring population

### **Geographical area affected by the proposal**

1. Dove Gardens
2. Surrounding Areas: (Bogside and Brandywell electoral wards)

### **Communities & vulnerable groups directly affected by the proposal**

1. Children
  - Pre School
  - Primary
  - Post Primary
2. Returning population
3. Single parents
4. Young people 16-25 yr olds



**3.6 Local conditions & circumstances relevant to the HIA**

1. Engaging with the decanted population will be difficult
2. Breaking down barriers between agencies and encouraging joint working
3. Constraints of designs
4. Involving key stakeholders at appropriate time
5. Resources available for the planned redevelopment
6. Timescale of the Health Impact Assessment

**Health impacts of concern - direct and indirect**

1. Childhood accidents
2. Antisocial behaviour
3. Stress
4. Litter
5. Pollution
6. Mental health
7. Community cohesions
  - restoring
  - rebuilding
8. Social Capital

**3.7 Stakeholders**

- Derry Children's Commission
- Planning Service
- Roads Service
  - Councillors
  - Members of Local Assembly

- TRIAX Neighbourhood Renewal Taskforce
- Returning residents
- Derry City Council
- Residents of surrounding areas
- Local Strategic Partnerships.
- Dove House
- Health Action Zone
- Health visitors / other health professionals / Social Care
- School Principals
- Pharmacists
- Gasyard Healthy Living Centre
- Credit Union
- Investing For Health

**3.8 Methodology for the HIA**

1. Literature review
2. Appraisal workshops
3. Health profile using local information
4. Steering Group to consider all of above and develop recommendations
5. Monitor and evaluate the impact of HIA on decision making process



### 3.9 Management arrangements for the HIA

1. The overall direction of HIA would be set by Steering Group
2. Tasks would be undertaken by sub groups of the main steering group
3. The steering group would agree the recommendations ensuring where possible, they were evidence based

**3.10 Sources of funding** The CAWT HIA project would provide the majority of the funding for this project. Members of steering group contributed staff time and commitment.

#### Major items of expenditure

1. Production of newsletter for Dove Gardens and surrounding areas with up-date of progress
2. Publishing final report & summary report
3. Launch of report
4. Child care cost to enable participation in steering group and appraisal workshops
5. Venue hire and hospitality

### 3.11 Decision-making forums for the HIA (including points of influence)

1. The Steering Group is the decision making forum for the HIA
2. The NIHE planning process is key point of influence

### 3.12 Work program

1. Steering group meetings
2. Establish working groups
3. Run appraisal workshops
4. Literature review
5. Complete health profile
6. Develop recommendations
7. Agree monitoring and evaluation schedule
8. Complete HIA
9. Launch report

### 3.13 Dissemination of the results of the HIA

1. Recommendations to be in place in time specified by N.W.H.A.
2. Summary of findings to be distributed to all households in Dove Gardens and immediate surrounding area
3. Representative from all stakeholder groups be invited to attend launch of HIA report

**3.14 Monitoring and evaluation** The evaluation and monitoring schedule developed by Kemm was agreed for this HIA. (Appendix 4)



The appraisal stage of a HIA involves collecting the evidence and assessing health impacts. This is done by analysing the proposal, profiling the affected population and identifying and characterising the potential health impacts on the population.

#### 4.0 Appraisal

Three approaches were used to gather evidence for appraisal.

1. Four appraisal workshops
2. Production of a health profile
3. A literature review

##### 4.1 Engaging with local stakeholders

A sub-group of the HIA steering group was established to oversee this work. The sub group included representation from the NIHE, local community workers and local residents. The group was facilitated by the CAWT Health Impact Assessment project manager and administrator.

The workshop sub group remit was;

*“Promote community participation to enable local communities to contribute to and influence the decision making processes as they impact on their community”*

At the first meeting it was agreed that

- The work of this sub-group should be as transparent and inclusive as possible within specified timescale and available resources.
- The group should adopt a holistic approach to the examination of factors which determine health and encourage participation by empowering stakeholders and actively valuing the evidence they bring to the appraisal process.

- The group should be aware that the process of engagement could result in raising expectations. The limits of what would be possible should be made explicit to those attending the workshops.
- The demolition, rebuild and reintegration of returning population were key areas stakeholders would comment on.
- The target groups for appraisal would be residents from Dove Garden and surrounding areas.
- It was important to collect local evidence of the impact of the redevelopment upon vulnerable groups such as children and young people, single parents and elderly.

**4.2 Selection of the appraisal tool** The group agreed to use a modified version of the appraisal tool developed for the Morice Town HIA in 2002<sup>(11)</sup>. This tool has 6 Major Impact Categories (MIC) and 22 Derived Impact categories (DIC) and is shown in Appendix 5.

1. **Environment (MIC)** Homes and houses, The natural environment, Traffic, The built environment (DIC)
2. **Service provision (MIC)** Access to services, Quality of services, Services for particular groups of people.
3. **Employment and local business opportunities (MIC)** Creating local jobs, Developing local skills, The working environment, Local economy
4. **Safer neighborhoods (MIC)** Crime and anti-social behavior, Fear of crime (DIC)
5. **Community spirit (MIC)** Social inclusion, Community facilities, Sense of community, Image of the area, Social contact (DIC)

6. Other determinants of health (MIC) Diet, Exercise, Income, Health awareness (DIC)

**4.3 Appraisal workshops** Four workshops for the following groups were planned

- Young people from Dove Gardens and surrounding area
- Residents of Dove Gardens who would be returning to form the new community
- Residents from the surrounding areas
- Those who had a connection with the area through their work

Young people were identified through local youth workers. A letter of invitation (Appendix 6) to attend the appraisal workshops was sent to those in the other three target groups followed by telephone calls and e-mails to as many stakeholders as possible. The agenda for the workshops is shown in Appendix 7.

Attendance at the workshops was as follows:

**Workshop 1** Young people living in the area  
9 attended

**Workshop 2** Dove Gardens residents  
19 attended

**Workshop 3** Residents from surrounding area  
22 attended

**Workshop 4** those who work in the area  
21 attended

A total of 208 impacts across the 6 major impact categories and 22 sub domains were identified at the three workshops. These are shown in Appendix 8.



**Young persons appraisal workshop** Local youth workers and a community artist were asked to hold an appraisal workshop with youth from the area.

This workshop was carried out with young people from Dove gardens and surrounding area. Of the young people who attended the workshop two were still resident in the surrounding area and seven had moved as part of the decant process.

**Workshop format** The young people were asked to draw on canvas their current impression of Dove Gardens and how it might look after the redevelopment (their art work is displayed throughout this report).

During this process the youth workers and artist recorded the young peoples' reflections on how the redevelopment might change their area.

### Quotes from young peoples' workshop

*'It was all smelly and stinkin. All you could smell was dope and pee. There was graffiti and broken windows. It's better where I live now. We're not moving back...and that's a positive thing.'* **Girl 16**

*'One of our friends moved out...we don't really see him anymore. It'll be far cleaner. It won't be all graffiti and all.'* **Boy 11**

*'The steps were bad... all the people hanging 'round in them. There was a lot of noise; people hanging round and shouting.'* **Boy 17**

*'In my picture, all the windows are broken... there is graffiti and fires. We're not moving back.'* **Girl 13**

*'I hope the new place won't have steps...for all the old people. Also 'cause everybody hangs about them and all. It's far better, cleaner where I'm at now. It'll be better than it is now, anyway.'* **Boy 14**

The following set of questions were put to the young people during the workshop session

### What issues did you not like while you were living in Dove Gardens?

- The Flats were run down.
- Too many steps for mothers and young children.
- Steps were used at weekends for underage drinking.
- No front or back gardens.
- Steps were used as toilets and for anti-social behaviour.
- Young people involved in drug taking.

### Now that the houses are being boarded up, what problems do you think this is causing?

- Mice and rats in area
- Young people breaking into flats and houses taking heating boilers, copper etc
- Anti-social behaviour
- Makes the Bogside look worse and run down.
- Flats been flooded with busted pipes.
- People using the site as a dumping ground (We have seen people driving up in cars and dumping their rubbish)

**Can you see any problems in the next 1-2 years, while work is been done in the area?**

- Rats and mice.
- Young people breaking into site, stealing, getting hurt and claiming. This will hold the work behind.
- Young people may hang about.
- Young people may light fires.
- Young people could break in to get ammunition for attacking the police.

**What would you like to see when the new houses are built?**

- Back gardens and front gardens
- Clean area
- Trees and bins.
- Play area.
- New youth centre
- Outdoor football pitch.

**What difference will the new houses make when completed?**

- Make the area cleaner
- Hopefully decrease anti-social behaviour
- No underage drinking
- No graffiti
- More pleasant area to live in



**If you were in charge of this new development, name one thing that would make the area more positive?**

- Use welcome signs into the area (Welcome to Dove Gardens)
- Provide flowerbeds and hanging baskets on lamppost.
- Ensure that young people have a part to play in making the area friendlier.
- Parents and council to listen to the views of the young people.
- Employ local people for labour work or maybe some young people can be trained in new skills like (Painting, plumbing etc).

**Other key issues raised by young people**

One of the young people used to go down to the shop for his granny to get her papers and some shopping. Now that he has moved this cannot be done.

My mother will not let me down to Dove Gardens. She says it's too dangerous walking home at night.

Many of the young people who lived in the area do not attend the club any more as they are now living in different areas.

**4.4 Health Profile Sub-group** This sub-group had representation from the NIHE & local community workers and the Public Health Department Western Health & Social Services Board (WHSSB) all of whom sat on the steering group. The group was facilitated by CAWT HIA project manager.

A review of the scoping checklist established that the terms of reference for this group should be -

*“Produce a health profile which assists the steering group identify impacts associated with proposed redevelopment”.*

The geographical area considered was Dove Gardens and surrounding area.

**Health Profile Findings** The Northern Ireland Multiple Deprivation Measure (NIMDM) is a measure of deprivation at the small area level. The NIMDM 2005 comprises of 7 Domains of deprivation which combine to form the multiple deprivation measure.

All Super Output Areas (SOA) in Northern Ireland are ranked, 1 being the most deprived and 890 the least deprived. Brandywell's with a rank of 16th is within the top 10% most deprived SOA. Brandywell SOA includes both Dove Gardens and surrounding area.

On the Multiple Deprivation Measure Brandywell SOA has an overall rank of 16 out of 890 SOAs.

**Local surveys** Key finding from reports produced by local community and voluntary groups in recent years were reviewed. The Health in Our Hands (Slainte Linne) Report 2000<sup>(12)</sup> was produced by the Bogside and Brandywell Health Forum a multi agency health partnership. This involved local people in questionnaire design and administration. In total 117 women and 74 men were surveyed between February and April 2000. Local GP practices were also surveyed. The following areas of concern were identified in the survey:

- Unemployment and alcohol abuse.
- For women; stress depression and back problems.
- For men; stress, back and respiratory problems.
- Financial problems, stress and bereavement were the biggest factors contributing to ill health for both men and women.

- Almost twice as many women (48.7%) smoked as men (28.4%).

Diet was identified as an issue for children and teenage pregnancy for young people.

The full health profile document is included in Appendix 9

**4.5 Literature review** The literature review produced for this HIA was a summary of available evidence relating to the impact of housing upon health. The review looked at literature reviews included in previously completed HIAs that had collected evidence on the impact of housing improvements upon health.

**Key findings** People who live in substandard housing, with such features as rat infestations, leaks, holes in walls and floors, and lack of heat, water, and/or functioning toilets, are at increased risk of emotional disorder<sup>(13)</sup>. Good housing promotes health and well-being in many ways: providing shelter, serving as “the physical infrastructure for group life,” and providing a secure and rooted sense of home<sup>(14)</sup>.

Poor quality housing is associated with poor health. There have been many studies which have reported statistically significant associations between poor housing conditions and poor health<sup>(15)</sup>. There are a number of studies showing the difficulty in separating out other confounding variables such as smoking, low income and overcrowding which may be more common among people living in poor housing.<sup>(18)</sup>

A study carried out on behalf of the Medical Research Council in 2002<sup>(19)</sup> produced a systematic review of all housing research in the last 100 years which looked at the health of residents

Table 3. Brandywell Super Output Area (SOA).

SOA SCORES & RANKS	SOA SCORE	SOA RANK
Multiple Deprivation Measure	67.10	16
Income Domain	0.66	12
Employment Domain	0.35	19
Health Deprivation & Disability Domain	1.74	24
Education, Skills & Training Domain	57.30	61
Proximity to Services Domain	-0.71	735
Living Environment Domain	46.98	52
Crime & Disorder Domain	55.44	68
Income Deprivation Affecting Children Measure	0.80	8
Income Deprivation Affecting Older People Measure	0.75	19

whose houses had been improved they concluded that

- Housing improvements can improve residents health, in particular mental health
- Housing improvements can result in rent increases which in turn can actually make peoples health worse
- The original residents may move to another area and not benefit from the housing improvements
- Housing improvements can have negative as well as positive effects on health. Ten studies found some health improvements and five found no differences in some measures. Some studies found mixed effects.

A key finding from several studies is different vulnerabilities which certain groups experience in terms of impact of poor housing on their health these include economically disadvantaged, ethnic minorities, elderly, children and those with disability or long term limiting illness.

Poor quality housing is more likely to be inhabited by those living on lower incomes. People with low incomes are more likely to live in the least energy-efficient housing which costs more to heat resulting fuel poverty.<sup>(20)</sup>

The link between housing and the wider environment has particular relevance for children. The main activity of children is play yet the built environment often does not reflect this. Studies show that children need to have a whole range of play experiences if they are to develop to their full potential<sup>(21)</sup>.

For many children, their natural play environment is the street, but this is often a dangerous place for children to play due

to high volumes of traffic and the lack of traffic calming measures. Statistics show that Northern Ireland has among the worst child pedestrian injury and fatality rates in Europe.<sup>(22)</sup>

A survey of 16 Accident and Emergency departments in Northern Ireland found that more accidents occurred inside the home (41.4%) than at work (15.2%) and on the roads (19.5%) put together.

Some accidents are linked to lower socio-economic groups and to particular age groups. Research suggests that the social class gradient is steepest for fire deaths; the risk of fire related death for a child in social class 5 is 16 times that of children in social class 1.<sup>(23)</sup>

Two longitudinal studies looking at improved housing and improved heating systems on children's health found some improvements.

A longitudinal study used the National Child Development Study to analyse health effects over an extended period. The authors concluded that once other factors have been controlled, housing plays a significant role in health outcomes, exhibiting a dose response relationship: greater housing deprivation at one point will lead to a greater probability of ill health and a sustained experience of housing deprivation over time will increase the probability of ill health.

Acting to improve the housing conditions for both adults and children would be of benefit but addressing the conditions of children in particular would deliver direct benefits in terms of improved current health and also in later life.<sup>(24)</sup> The full evidence review is in Appendix 10.

The HIA steering group prioritized impacts based on evidence from elsewhere and the health profile. Impacts that were not coded as likely (L) and supported by evidence were not considered in developing recommendations.

## 5.0 Prioritising Impacts.

This approach was explained and agreed by all members of the steering group. This ensured it was possible to link the recommendations back to original impact statements which are included in Appendix 11. This was done in three stages.

**5.1 Stage 1** All participants at the appraisal workshops were advised that they could indicate a maximum of 3 priority impacts statements under each of the 22 Derived Impact Categories. This information would be used to indicate, to the steering group, the strength of feeling on particular issues. These resulted in 208 impact statements accompanied by the number of people who had raised this issue at any of the three appraisal workshops.

The workshop subgroup reviewed the impact statements across the 3 workshops. Common themes were identified which enabled the impact statements to be reduced from 208 to 87 final impact statements.

A record of this process was kept to ensure that the final impact statements could be tracked back to the original 208 impact statements. Both the full document of impact statements and the reduced version were presented to the steering group.

**5.2 Stage 2** The HIA steering group appraised all 87 final impact statements and assigned a code to each. They used the coding schedule developed by the Institute of Public Health Ireland<sup>(10)</sup>.



- L= health impact is **L**ikely and is supported by evidence
- I= health impact will have an effect on health **I**nequalities
- C=health impact is considered as a cause for concern by the **C**ommunity
- S= health impact is **S**peculative
- U=health impact is **U**nlikely in this case
- O=**O**ther give detail

**5.3 Stage 3** The steering group prioritized those impacts which had been coded as likely and supported by evidence. This further reduced the number of impacts statements from 87 to 37. Some impacts had more than one coding identified e.g. Likely and Community they were also chosen as long as likely and supported by evidence was present.

The prioritizing was done on the strength of the evidence described in the literature review and how well this matched the impact statement and health profile.

In some cases the evidence related not to housing redevelopment directly but to a change in other determinants of health such as crime and fear of crime or community spirit. For example the evidence shows that crime and fear of crime is detrimental to health. The health profile showed that this area was within the top 10% of areas experiences high levels of crime. The impacts statements from the workshops showed that participants consistently said that the redevelopment had the potential to reduce crime. Evidence also showed that it was possible to design neighbourhoods in such a way that the physical layout could discourage crime and reduce the fear of crime.

Table 4. Summary of Prioritising Impacts.

### STAGE ONE

The three appraisal workshops identified 208 impact statements

Workshop subgroup condensed impacts statements based upon common themes and repetition across the workshops. Original statements reduced from 208 to 87.

### STAGE TWO

Steering group assigned a code to each of the 87 impact statements based upon evidence from literature review and health profile.

### STAGE THREE

Steering group prioritized those impact statements coded as Likely (L) reducing the number from 87 to 37.

The purpose of a Health Impact Assessment is to develop evidence based recommendations which influence the decision making process.

## 6.0 Recommendations of HIA

The recommendations inform decision makers of the ways in which their proposal needs to be amended to enhance the positive aspects and reduce or eliminate the negative impacts. The steering group had representation from the decision makers (NIHE & NMHA) this support was essential in forming recommendations which could be acted upon.

The appraisal process generated 37 coded health impacts from which the 35 recommendations were formed. Recommendations were developed across the six major impact categories used at the appraisal stage with the addition of a partnership category. All of the recommendations made can be linked with one of more impact statements.

The steering group also identified lead agencies responsible for implementation of the recommendations.

The recommendations relate to

- 9. Environment
- 10. Homes and Housing
- 11. Built Environment
- 12. Sense of Community
- 13. Service Provision
- 14. Health awareness
- 15. Creating Local Jobs and skills
- 16. Partnerships

The recommendations are described in Table 5 below.

1. Environments	Key Stakeholder(s) responsible for implementation recommendations:
1.1. We recommend that the negative impact of the flyover is brought to the attention of the relevant authorities.	Brandywell and Bogside Initiative(BBI) Local Residents Group Northern Ireland Housing Executive(NIHE) North West Housing Association (NWAH)
1.2. Traffic calming, signage and pedestrian areas should be designed into the new scheme (including 'welcome' sign)	North West Housing Association (NWAH)
1.3. Health and safety contract will be included in assessment of tender (not just done on price. This should reduce risk. Construction Design Management regulations require that these issues be addressed) Local consultation should be carried out on the detail of the demolition contract e.g. access to the site, before demolition before work starts.	North West Housing Association Implementation Group

## DOVE GARDENS

1.4. Residents to be involved in the environmental works (planting).	Implementation Group Local residents group
1.5 Fuel poverty should be minimised by building energy efficient homes which incorporate energy efficiency systems into the homes. NIHE design team to consider house orientation and materials to minimise heat loss/ maximise heat retention	North West Housing Association
1.6 Tree planting should be within a defensible space preferably within gardens so people are responsible for them (Belfast model).	Implementation Group North West Housing Association
1.7 The design should be integrated with the green space in the Gasyard in consultation with residents and negotiations should start as soon as possible.	North West Housing Association Gasyard Development Trust (GDT)
1.8 Provisions for recycling to be included in the design of the kitchens and back gardens.	North West Housing Association
1.9 Await the outcome of the soil survey and consult with residents on what needs to be put in place to reduce risks. (Gasyard survey 1998).	North West Housing Association
1.10 Asbestos removal will be dealt with under Health & Survey regulations.	North West Housing Association
1.11 Chair to bring to the attention of the council that illegal dumping has started.	Chair Implementation Group
1.12 Chair Implementation Group put notice in Parish Bulletin asking people not to dump rubbish.	Implementation Group

2. Homes and Housing	Key Stakeholder(s) responsible for implementation recommendations
<p>2.1. We recommend the design team consult with residents to ensure that the highest standards of 'design for life' principles are incorporated in house design. This should include designing homes which can be adapted to changing needs of families including children. This should be reflected in bedroom sizes which accommodate the study needs of school children and students also potential use of roof space void as additional bedroom</p>	<p>North West Housing Association NIHE Local residents group</p>
<p>2.2 To achieve 'secure by design' certification for individual homes and the estate layout.</p>	<p>North West Housing Association</p>
<p>2.3. If a need is identified for flats the numbers will be minimised and the residents will be consulted.</p>	<p>NIHE will profile need for flats and North West Housing Association will undertake to consult with resident</p>
<p>2.4. As part of pre-contract work water service should be contacted.</p>	<p>North West Housing Association</p>
<p>2.5. Pre-baiting of sewers 6-8 weeks before demolition work commences.</p>	<p>North West Housing Association</p>
<p>2.6. Proper site management and educational initiatives to remind people not to leave waste food lying around.</p>	<p>North West Housing Association &amp; Implementation Group</p>
<p>2.7 The proposed estate layout should compliment the potential future redevelopment of remaining flats and maisonettes.</p>	<p>North West Housing Association</p>
<p>2.8 Short term measures can be used to improve the whole areas (e.g. bring forward External Cyclical Maintenance programme).</p>	<p>NIHE District Office &amp; Implementation Group</p>

<b>3. Built Environment</b>	<b>Key Stakeholder(s) responsible for implementation recommendations</b>
3.1. Safe play area for children will be addressed through integration with the Gasyard land.	Health Action Zone (HAZ) Derry City Council (DCC) North West Housing Association Derry Children Commission
3.2. Youth provision for the area should be reviewed with the intention of enhancing possible benefits associated with redevelopment and addressing areas of concern. This process should be undertaken in association with Dove House youth centre.	Dove House Implementation Group
3.3. Partnership working arrangement should be established between Housing Association and local residents to maintain a safe, well managed environment.	Local Residents Group North West Housing Association
<b>4. Sense of Community</b>	<b>Key Stakeholder(s) responsible for implementation recommendations</b>
4.1. Regular social meetings to update residents on developments and maintain social contacts and networks.	Implementation Group & BBI
4.2. We recommend that up date information is provided to local community using Newsletter type format.	HIA communication sub group
4.3. Form a Residents Association.	BBI & North West Housing Association
<b>5. Service Provision</b>	<b>Key Stakeholder(s) responsible for implementation recommendations</b>
5.1. In future housing decants NIHE should consider engaging outreach workers.	NIHE District
5.2. Recommend Foyle Trust takes a fresh look at provision of services in this area.	Foyle Trust (FT) Gasyard Health Forum (GHF)
5.3. In future decant consider an information pack to include assistance and advise on how and who regarding change of address.	NIHE District

<b>6. Health Awareness</b>	<b>Key Stakeholder(s) responsible for implementation recommendations</b>
6.1. Individual health needs should be catered for within dwellings (OT assessed)	NIHE District
6.2. Foyle Trust to prioritize OT assessments for residents from the redevelopment area	Public Health Depts. Western & Southern Health & Social Service Boards
6.3. To consider loss of benefits for owner occupiers in future developments	NIHE Board Level Implementation Group
6.4 To incorporate principles of a safe play environment with in the whole area to allow children to play on the streets.	North West Housing Association Implementation Group
<b>7. Creating local jobs and skills</b>	<b>Key Stakeholder(s) responsible for implementation recommendations</b>
7.1. Encourage contractor to link with the local training schemes including Helios to consider training local residents in construction skills and consider employing local people as apprentices.  Architect to offer work experience to young person from Dove Gardens.	HELIOS (A member of the Building for Women Transnational Partnership) North West Housing Association NIHE
<b>8. Partnerships</b>	<b>Key Stakeholder(s) responsible for implementation recommendations</b>
8.1. The recommendations from this HIA need to be taken to all potential partnerships working in this area. (i.e. TRIAX).	Implementation Group
8.2. Consult with Dove House on provisions for Young People.	Implementation Group
8.3. Need to identify partnerships and key stakeholder within agencies that should be involved in the implementation of recommendations	TRIAX & BBI
8.4. The Implementation Group should agree an action plan 'Next Steps'	Implementation Group

<p>8.5 The communications sub group should develop a communications strategy for publicising the findings of the HIA. This should include a Newsletter, the published report and the launch of the report.</p>	<p>Dove Gardens HIA steering group-communications sub group</p>
<p>8.6. Community to nominate a representative to Implementation Group to take forward the Action Plan.</p>	<p>Local Residents Group</p>
<p>8.7 To make a bid to Research &amp; Development Office for a research project to track the health of residents over a 5-10 year period, or longer if required.</p>	<p>Implementation Group Public Health Depts. Western &amp; Southern Health &amp; Social Service Boards</p>

Monitoring and evaluation is the last stage in a HIA process. The steering group agreed to use the monitoring and evaluation template developed by Kemm REF (Appendix 4).

## 7.0 Monitoring and evaluation

The HIA steering group was stood down and an Implementation Group established. Membership of the Implementation Group was predominately drawn from the HIA steering group. The remit of this group is

*“To oversee and influence the implementation of the recommendations of the HIA”.*

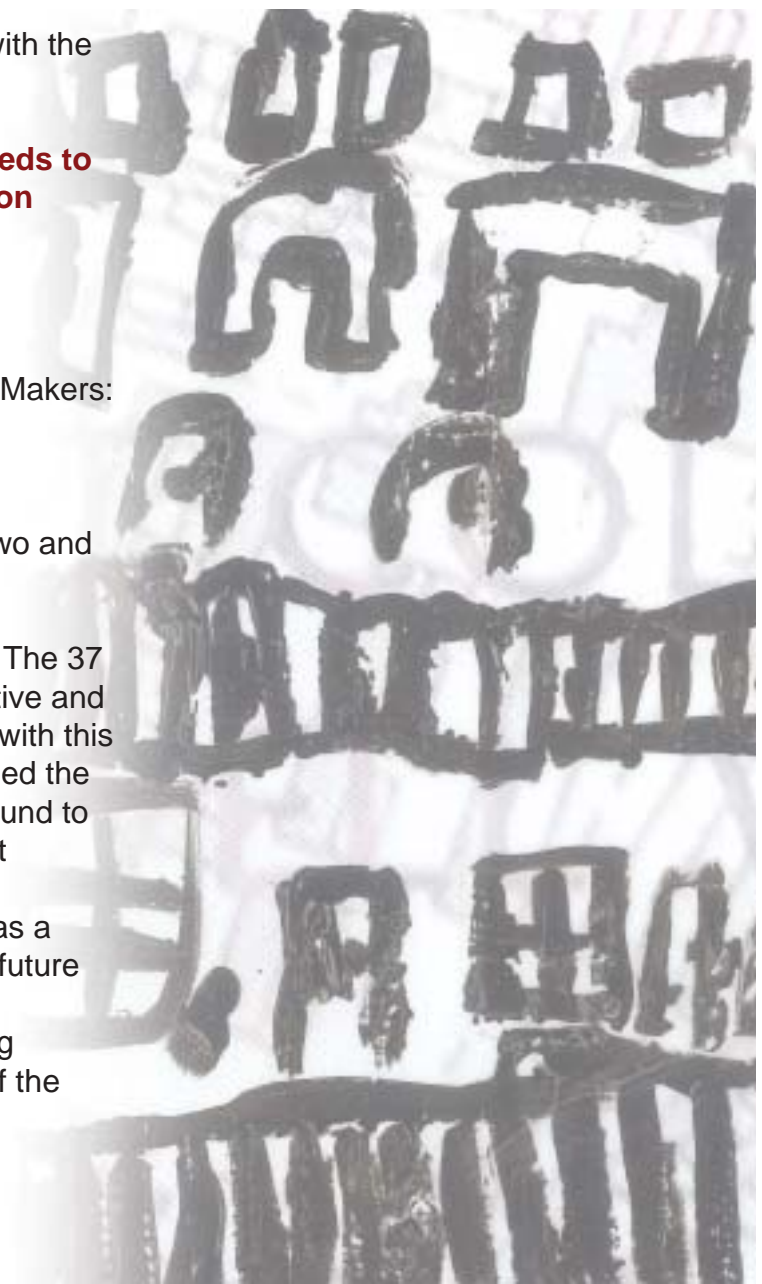
The long term responsibility for the monitoring and evaluation will rest with the Implementation Group .

### **7.1 The implementation Group needs to consider monitoring and evaluation under three areas:**

1. Accuracy of impact prediction:
2. How the HIA influenced Decision Makers:
3. Involvement of stakeholders

This needs to be reviewed at one, two and three year intervals.

**1. Accuracy of impact prediction:** The 37 prioritized impacts forecast the positive and negative health impacts associated with this proposal. The steering group identified the areas in which evidence might be found to assess the accuracy of these impact predictions. This was passed to the Implementation Group and stands as a bench mark for impact prediction in future evaluation. (See appendix 12)  
Evaluating the process of developing impacts was carried out by review of the



methods used to gather and analyze information. This relates to the three key areas:

- 1 How was the evidence gathered
- 2 What method were used to prioritizing evidence
- 3 How did the evidence link to impacts

**2. How the HIA influenced Decision Makers:** The Implementation Group will be working closely with decision makers to plan for the implementation of the recommendations.

To date all 35 HIA recommendations have been included in the NWA design brief passed to the design team.

Decision maker involvement was at all levels of the process including:

Attending CAWT HIA training courses

Attending briefing sessions

Attending the screening exercise

As members of steering group.

As members of various working sub-groups

Participants at the appraisal workshops.

Developing the monitoring and evaluation

Membership of the Implementation Group



It will be the role of the Implementation Group to ensure that all the recommendations are presented to the relevant decision making agencies. In order

to do this the HIA steering group identified the lead agency responsible for delivering each recommendation.

**3 Involvement of stakeholders** A review of minutes and record of attendance at meetings showed that representatives from all stakeholder groups were present throughout the stages of this process and at all levels.

Stakeholders who attended the screening event and the scoping exercise completed evaluation questionnaire after the meeting, the results are shown in Appendix 12.

## 8.1 Incidental benefits of carrying out

**a HIA** The steering group identified the following as outcomes directly related to the

### 8.0 Other related issues

HIA. Which were not identified at the scoping stage of the HIA.

The formation of a residents group involving both Dove Gardens and surrounding areas.

Raised awareness of the link between built environments and health, and increased stakeholder awareness of their role in determining health outcomes.

Improved working relations between stakeholders from statutory, community and voluntary sector.

Local residents present on the Steering group reported that the HIA process gave them a sense that their concerns were listened to

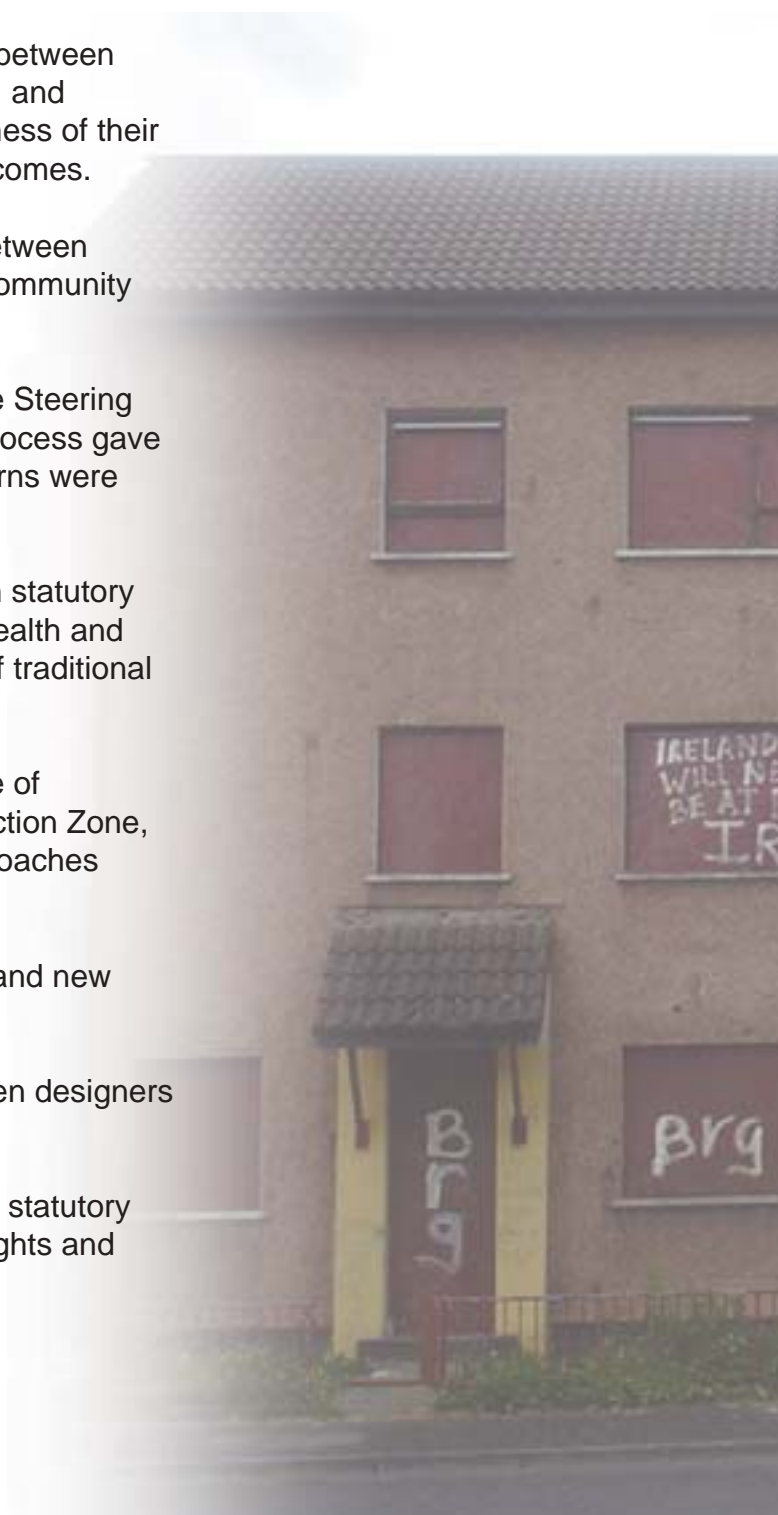
Improved networking between statutory partners such as NIHE and Health and Social Services, breakdown of traditional working boundaries

Opportunity to raise the profile of Investing for Health, Health Action Zone, community development approaches to engagement.

Personal development, skills and new learning for participants

Break down in barriers between designers and residents

Challenge the community and statutory partners to examine human rights and equality issues.



Two local residents have been invited to become members of the NIHE design team the residents are members of the Implementation Group and were involved with the HIA steering group.

This work has had impacts beyond the site of the HIA; debate has begun in the NIHE about the merits of mainstreaming HIA approach to rebuilds and redevelopments helping to raise the profile of HIA as an effective tool in planning.

The HIA is used as a case study in the CAWT one training event which aims to build capacity in this area.

Engaging local resident with HIA process has contributed to building a sustainable community infrastructure.

Raised the profile of HIA as an effective tool in planning and creating a local model of best practice

**Prioritisation of Impacts** Debate is ongoing within the HIA community surrounding the prioritisation of impacts. Some HIA practitioners argue that all impacts should be considered in the final recommendations and that the absence of evidence to support an impact statement should not exclude it from consideration in forming the final recommendations. In this HIA the steering group chose to prioritise impacts based on an assessment of all available evidence from literature review, appraisal workshops & health profile.

**Measuring Incidental Benefits** This is the first prospective HIA carried out on a housing redevelopment in Ireland. This project has been characterised by many incidental benefits e.g. formation of a community association that were not anticipated at the scoping stage. Future HIA's should consider how incidental benefits are measured.

## 8.2 Other issues related to this HIA

**Decanted population** At the scoping stage it was agreed to focus upon those residents who would be returning to form the new Dove Gardens along with residents from surrounding areas. The impact upon those residents who chose not to return was not



explored. It is unclear to what extent the planned redevelopment will impact on the health of this group. The majority in this group consisted of single males.

## Glossary of terms

<b>CAWT</b>	Co-operation and Working Together
<b>HIA</b>	Health Impact Assessment
<b>SOA</b>	Super Output Area
<b>NIHE</b>	Northern Ireland Housing Executive
<b>BBI</b>	Bogside & Brandywell Initiative
<b>NWHA</b>	North West Housing Association
<b>TRIAx</b>	Neighbourhood Renewal Taskforce, TRIAX refers to the three neighbourhoods involved in this pilot neighbourhood renewal scheme.
<b>MIC</b>	Major Impact Categories
<b>DIC</b>	Derived Impact Categories
<b>WHSSB</b>	Western Health and Social Services Board
<b>NIMDM</b>	Northern Ireland Multiple Deprivation Measure
<b>NISRA</b>	Northern Ireland Statistical & Research Agency
<b>HAZ</b>	Health Action Zone
<b>DCC</b>	Derry City Council
<b>FT</b>	Foyle Trust
<b>GHF</b>	Gasyard Health Forum
<b>SHSSB</b>	Southern Health & Social Services Board
<b>HELIOS</b>	(A member of the Building for Women Transnational Partnership)
<b>NWHA</b>	

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