

ENVIRONMENTAL ASSESSMENT OF SHEFFIELD'S NORTH-WEST INNER CITY AREA

BY THE PONDEROSA ENVIRONMENTAL GROUP. NOVEMBER 1997.

INTRODUCTION

The word *environment* has become a ubiquitous generic term in the last decade. This study has not attempted to define or dilute the term, but has adopted a working understanding based on the qualitative and quantitative analyses of the opportunities for local residents to interact with the world around themselves in as many and as diverse ways as possible. This premise permits observations of the naturally-occurring ecosystems within the area as well as the impact of human activities, and the possibilities for harmony (or discord) that exist between them.

This assessment also seeks to show how the environment impacts on the community, affecting its health, safety and ways of life.

POTENTIALS AND LIMITATIONS OF ENVIRONMENTAL DEVELOPMENT

It is vital for all parties wishing to contribute to the improvement of the living environment within the study area to acknowledge and fully understand the wide range of factors which limit the quantity and quality of interactions between residents and the world immediately around them.

Many factors are set and invariable, such as huge external influences (e.g. traffic flows and shopping provision). Decisions to change these factors are often beyond the community's ability to influence local affairs and are to all intents and purposes inevitable. Regional and national trends and practices have the power to either devastate or regenerate localities.

A second category of factors refers to the material infrastructure of the area which can be influenced either by individuals or by the community as a whole. The range of habitat spaces identified in this study (from the micro level of window boxes and balconies up to the macro level of land in public housing curtilage and open spaces) can all be seen to provide limited opportunities for local individuals and groups to influence and bond with the environment around them.

A third category of more intangible factors must also be assessed to complete the picture of what problems and potentials this area possesses uniquely. These could be referred to as the psychological dimension of the area or the human dynamics involved. Factors as diverse as mental health status and employment profiles of individuals as well as what initiatives exist to organise and co-ordinate efforts to improve the environment should all be considered.

EXTERNAL INFLUENCES (BEYOND LOCAL CONTROL)

The whole of the NWICA area is situated on the south-facing (lea-side) of one of Sheffield's seven hills (Bole Hill dividing Rivelin and Loxley valleys).

Combined with the extra background heat of the city centre and industrial zones along the Don valley (estimated to increase the ambient air temperature by an average of two degrees centigrade throughout the year), the area is in effect a warm micro-climate compared to surrounding areas, especially the raised ground to the west. This is equivalent to a gain of approximately 5 degrees of latitude and means that planting selection can include stock which would normally be considered marginal in the region, for example Mediterranean species such as Rosemary and plants which require an extended growing season such as Almonds, and even fruiting Grapes and Passionfruit.

A commonly used concept of the 'ecological footprint', the origins and destinations of the gross flows of resources into and out of an ecosystem, can be applied to give a brief impression of the scope of the area to influence the environment.

Food is the primary resource for any population and a ratio between production and consumption provides a shocking reminder of the extent to which this area is dependant on external supplies. In these terms and in common with many inner city areas, the NWICA area would have to be defined as a 'food desert'; both in the sense that food must be imported from all around the world and also in the more limited sense that people must journey outside the immediate locality even to purchase it. Within the area there is a limited choice for staples either from Safeway or the Co-op. Smaller shops provide a minimal range of basic necessities.

However, within walking distance, inhabitants have access to abundant choice from retail outlets in the city centre, its markets and Hillsborough. The output derived from this food is delivered by a Victorian mains system running parallel to the River Don to the sewage works at Blackburn Meadows, next to Meadowhall, where it is aerobically activated and the material sterilised by heat.

General refuse has been landfilled for the greater part of 1997, whilst work to upgrade filter systems to reduce especially dioxin emissions has been carried out to the Bernard Road Municipal Incinerator. On recommissioning, this will supply heat (generating no power) to the City Centre heating system. Though valuable, this system recovers the minimal, calorific value of the refuse and can act as a disincentive to the extraction of recyclables from the waste stream.

Water delivery systems were upgraded in 1996 when Rivelin water works were substantially extended and in 1997-8 when the mains pipes for most of the north-west area were re-laid, replacing the original cast-iron network. Part of the area is supplied by the dams at Redmires above Crosspool, which

have also been recently extended and improved. Despite being well served by a reservoir system which was built to service the colossal requirements of the steel industry, the newly upgraded delivery system and consequent improvements in quality would justify the introduction of water metering for most households in the area, most of whom could reduce their water-use and their bills. Free conversion to meters is available as an incentive to households in both the private and the public sector. Uptake of this offer is currently minimal and sporadic, but industry trends are likely to encourage greater numbers of conversions in the near future.

The scale of consumption of all three major utilities, water, gas and electricity, can be conceived by simply multiplying the number of tenanted households in the area (c.6500) by the average annual supply cost. Hence it is possible to apprehend that residents of the area spend between one and one and a half million pounds (underestimate) on each of these three services. These stark figures justify the importance of any initiatives on energy efficiency and conservation in savings to local people although many already have the incentive of poverty forcing them to save resources.

MATERIAL INFRASTRUCTURE (ACCESSIBLE)

The most obvious method of assessing environmental opportunities within the area is to simply divide them up according to scale. A continuum can be constructed from purely private through to public spaces. Efforts to help and encourage individuals to maximise the use and value of their own land and growing spaces should be very different from those strategies developed to improve larger spaces, the sole responsibility for which has traditionally been municipal. The original concept of Sheffield City Council's NWICA(P) initiative held great potential for re-inventing and engaging the community's senses of responsibility for and ownership of the neighbourhood. This opportunity still exists, despite the lack of official progress because a large proportion of residents are (and will be) new to the area and hence unaware of difficulties in the track record of environmental improvement in the recent past.

An important distinction needs to be made between the activities of individuals and those of authorities. The latter should be sensitive to the fact that their impact is far greater and can be detrimental to the smaller inputs of individuals and groups. Corporate insensitivity in the area can be evidenced in several instances causing upset and anger amongst local residents, many of whom have given their time and made valuable contributions to many public meetings and forums.

Municipal landscaping with no-maintenance ground-cover can have the effect of merely branding an open space, declaring it out of bounds to the local population and excluding the possibility of public utility.

Alternatively, public consultation and acceptance of the views of the consumers of the local environment can produce innovative solutions which are cared for and cherished. This point is illustrated by the planting installed after Martin St/Oxford St Towerblock refurbishments. D.B.S. landscape designers were forced by residents' opposition to cancel mass planting of shrubberies (pyracanthas/hawthorn etc.) around the retaining walls and in the second phase delivered an improved selection including vines, variegated buddleias and fruiting cherry and plum trees.

If municipal improvements disrupt or destroy environmental assets achieved by groups and individuals, the demoralising effect can reduce or remove their motivation to achieve future developments. This is demonstrated in the case from February 1997 of the installation of virtually useless stone circles at the bottom corner of the football pitch on the Ponderosa by the Planning department's landscape architect, which removed young native trees planted by local schoolchildren. Equally damaging can be the issuing of grand plans for development in which the community has no role, which is a form of exclusion and has the effect of alienating locals from their council and perhaps more importantly from their local area.

It is imperative that any environmental improvement strategy should coordinate and synchronise activities on all levels from all parties equitably. As well as having the effect of encouraging more people to contribute to improvements, this would save money spent on unwanted projects which only encourage vandalism and social apathy or resentment.

PSYCHOLOGICAL DYNAMICS.

Anyone assessing or working on the environment in the area must be fully cognisant of the many difficulties and obstructions involved in enacting improvements. These factors are largely not in any way limited to the specific geographical area, but are common to all urban environments in the post-industrial era.

The greatest single source of environmental stress and disruption present for the past five years has been and for the next four will continue to be the programme of rebuilding and refurbishment. Undoubtedly, the stresses and uncertainties involved in this process will deliver fundamental improvements in the quality of life for future residents, but it has visibly had adverse consequences during the first half of the process. Community confidence and development have suffered from the mental, physical and sociological disruptions involved.

However, from this point onwards (late 1997), the majority of the population can now expect a more stable and enduring future. This midpoint or peak of the regeneration should mark the transition from damage repair to firmer foundations in many aspects of community dynamics. It is to be hoped that

the recent history characterised by rancour, fear of change, apathy, competition, distrust of authority and inaction will be superseded as the new population pattern stabilises and forms a sense of its own identity. In this context, environmental involvement and interactions can play a vital dual role, practically achieving improvements but also providing a forum for social interaction at all levels across all neighbourhoods.

Projected demographic changes on completion of the regeneration project include a decrease in the numbers of single persons and elderly, and increasing numbers of families and children. Total population will have declined by more than 1000 persons, in line with the city-wide trend.

Despite these major impacts on the population of the area, it can be expected that there will be a high degree of continuity in the constitution of the population and that consequently the area will still have above average proportions of unemployed, incapacitated, care in the community cases and elderly (as reported in Joseph Rowntree Trust reports 1991 to 1997).

Any initiatives to facilitate environmental interaction should concentrate on providing opportunities for all, positively discriminating if necessary to compensate for under provision for groups with specific needs, whether they are a bunch of pensioners, a gang of young kids or the mentally and physically disabled.

Extracted from the introduction to the Nature Conservation Strategy for Sheffield 1997 [S.C.C.]::--

1.27 "The provision of urban 'Green space' is particularly important in the inner city where access to open countryside is difficult and the problem is compounded by low incomes and poor mobility. It has been suggested that many inner-city problems stem from 'spiritual impoverishment' caused by distancing people from nature."

1.31 "'Natural [or wild] landscapes can be a focus for community action and involvement in nature conservation, which will encourage people to understand and care for the environment. Unfortunately, many of the areas that people might use are in poor condition and are often inaccessible. Areas left to nature are often treated as rubbish dumps or are targets for vandals. By clearing rubbish and creating proper access points with surfaced paths, seats and properly fenced boundaries, under-used and abused areas of 'natural' wildspace can become popular meeting places for local people."

PROGRESS INDICATORS

These should combine objective factual statistical data with more subjective perceptions of improvements and progress toward a more harmonious situation. Demographic information should be compiled to create an up to date snapshot, representing the current state of the population as a starting

point for anyone working in the local community. This factual basis can identify needs and deprivations and help to prioritise action.

Many of the more subjective indicators may seem less quantifiable and more ephemeral than current statistical analysis, but to anyone living in the area, they are all obviously important. It is difficult to identify a common methodology to record changes over time and therefore comparisons will be difficult. But assessments of the diversity, frequency and duration of interactions with the outdoor environment have been made, studying sections of the study area over the past ten years, and this approach should continue and be comprehensively extended to cover the whole area.

Even subtler indicators would also assess the level of passive use of various sites, establishing that housebound and elderly people (for example) may derive satisfaction and interest simply from looking at the view through their window.

A record could be compiled detailing community participation by establishing the number, scope and membership of local community groups interested in all types of environmental concerns. The level of achievements and simply the continuity of such groupings reflects the frontline of environmental progress. Acknowledgment of voluntary commitments in itself may help to motivate more people to contribute.

The activities of such organisations are generally complimentary to the input of authorities and a potential synergy exists which could be developed to increase the balance between environmental needs and the potential to satisfy them locally. In many cases the incremental momentum of many diverse, small-scale projects will be more likely to deliver the environmental experiences that local people want or need than grand designs that are perceived to be imposed on a community.

This area traditionally had a strong and well-defined sense of place or character which has declined and re-evolved over the past 40 years. Many elements could be drawn from this local history to enhance continuity from the past to the future reassuring long term residents that the character of the area is retained despite major transformations in its appearance. One indicator of the success of the environmental provision in the area is reflected in how long people remain in the area. Length of local authority tenancies, waiting lists for property and house prices all indicate acceptance or rejection of the social and environmental dynamic of the area.

Retrospective analysis of environmental performance can be made and updated in several ways. It is possible to assess the preventative or pre-emptive performance of environmental planning by valuing the degree to which forward thinking and provision has obviated economic and social

costs. For instance by anticipating near future needs, such as play facilities in an area with expanding youth population, the social and economic costs of vandalism, crime and boredom can be reduced.

The principles of environmental accounting, taking into account the whole lifetime benefits of improvements including savings to all budgets, valuing all contributing elements, provide an accurate picture of the area as an ecosystem, taking into account the inputs and outputs of the area and provision for re-use, recycling and recovery of resources which strengthen the local economy and community.

In practice, any efforts to assess progress are welcome. Such elementary measures as ensuring the minimal provision to facilitate usage (eg bins, benches, paths etc) for each and every open space are still lacking in many instances. At the other end of the spectrum, current best practices, such as organic maintenance regimes and full community participation, can be identified locally, city-wide, nationally and even internationally and adopted from successful working examples.

The contexts for profiling an inner city area must also take account of the overall dynamic of the city as its function changes and adapts over time. Any progress indicators can be compared to similar assessments for other areas and other cities and towns. In the case of Sheffield, the overall population is steadily declining and some might argue that self-definition and self-confidence have also declined. The theory that this atomisation of the city will produce a series of interlinked village-scale communities has been prevalent since the decimation of the steel and coal industries over a decade ago. This scenario will starkly highlight the success or failure of environmental regeneration according to whether this area can re-establish for itself a distinct and enduring sense of its own character.

SOIL QUALITY

All gardening or practical environmental activity starts with an analysis of soil properties. This determines what can be grown, how well it will do in the future and what ecosystems are likely to develop.

Aboriginal, undisturbed or virgin soils are extremely rare within the study area. The topography suggests that the area was originally composed of a small, steep-sided glacial valley with a brook running down it as a tributary of the river Don. Rocky outcrops to the north defined the start of the climax woodland (oak) which was cleared to become heather moorland at an early date. Evidence exists that the alluvial silt in the valley bottom was cultivated until the mid-1700's and that sheep were grazed on the acidic moorland pasture of the higher ground.

Disturbance and major re-landscaping has been a constant feature since pre-Roman times. A brief résumé of developments would have to include the construction of a series of increasingly large dams and reservoirs progressively going up the valley; the process of conurbation which covered all available space with housing and factories; the construction of the viaduct to take the original tram in the 1880's, and the slum clearance and redevelopment as council estate in the late 1950's.

Hence the most pertinent broad description of the soils in the area is that they are recovering from previous uses. The deepest and most fertile soils are those that have had longest to rebuild after disruption (such as the meadow in the top N-W corner of the Ponderosa and the steep north facing slope at the back of Sydney Road down to Springvale Road). Other relatively undisturbed soils are to be found in the gardens of the large houses on the south facing slope down from Commonsides (Birkendale to Upperthorpe), although these will also have been subject to extensive modification by the occupants.

Two main processes of soil recreation can be observed:

- 1. the accumulation of turf to create loam on grassland**
- 2. the deposition of humus by mature deciduous trees.**

The bedrock for the whole area is sandstone overlaying granite, which provides generally good drainage with a spring line where the two meet. In the vast majority of cases these subsoils have been supplemented by archaeological strata of building rubble and tipping wastes. Often over time these layers prove to be unstable and subsidence can occur (such as where cellars have caved in at Port Mahon and near St Stephen's Walk on the Ponderosa).

Upper levels of these additions to the substrate are characterised by relatively inert categories of matter such as bricks, mortar, tarmac, flagstones, glass, roof slates and kiln lining. Although the presence of so much alien material can make cultivation difficult and soil-Department can be very thin and variable, drainage is often further improved and the gradual attrition of lime derived from mortar has improved the pH balance and even created alkaline conditions exceptional in the range of what would otherwise now be acidic heather moorland.

More recent tipping contamination (in the last five years) has introduced noxious materials which should be regarded as actual pollutants, such as asbestos, plastics, composites and electricals, all of which are eco-toxins and could present dangers if disturbed in future.

The majority of the soils in the area consist of imported topsoil to a depth of 8-24 inches (20-60 cm), derived from a variety of agricultural and greenfield

extractions. These can be typified as sandy clay-based loams, although distribution of batches of specific imported soils is random and sporadic. Most soils present require radical improvement to facilitate a wider variety of plantings, though they are sufficient to permit many forms of cultivation, if appropriate to the particular site.

Historically, concern has been expressed about heavy metal contamination from industrial sources (lead, cadmium and mercury specifically) and precautions to avoid ingestion should be taken. However, the presence of high levels of lime (in cement, mortar and concrete) will help to ameliorate this problem by bonding the heavy metals onto the calcium. Analysis of current levels of soil-borne pathogens such as toxicariasis is recommended urgently to establish whether and if so where they may be present or alternatively to reassure residents of the safety of allowing young children to come into contact with the soil (see Ponderosa Dog Mess strategy later on). Understanding of the history and formative principles which have influenced the soils present is a necessary precursor to engaging in their improvement. Despite the major episodes of degradation and destruction in the past, the position is far from irretrievable, on the contrary there exist many opportunities to exploit the existing soil-bank to assist the processes of environmental and social regeneration.

Current practices for achieving amelioration consist of the addition of minimal fertilisation with bonemeal and/or mulching with composted forest bark. Although these additives are perfectly acceptable and also conform to an organic standard, they can be identified as inadequate on two counts. They may fail to deliver a sufficiently varied spectrum of nutrients to support anything but a minimal range of species adapted to survive in adverse conditions and they do not deliver sufficient quantities of humus to allow soil micro-organisms to thrive and generate a virtuous cycle of soil deposition and structuration.

In order to deliver longer term success in a more diverse range of flora, it is necessary to provide a wider variety of nutrients and renew supplies of bulky organic matter regularly. Providing that the choice of species is sensitive to the conditions in a particular microclimate, a vastly expanded range of planting options could be available.

LAND CATEGORIES

This environmental assessment starts with the (generally) small-scale environmental or growing opportunities available to NWICA residents. These are usually (or can be made) completely under the control of the resident/gardener. The assessment then proceeds to move out from this

zone into the more public domains of gardens, housing curtilage, minor open spaces and then, finally major open spaces. For NWICA, this means the Ponderosa; the largest open space and the zone that contains the most wildlife and the greatest potential for community environmental projects (not too mention social and even economic projects).

Space within the study area has been divided into six categories ranging from the smallest to the largest. This arrangement reflects the perspective of inhabitants, who may have access to all types of space, but can influence their immediate environment more readily than larger spaces. This summary attempts to describe opportunities for interaction at each level, identifying appropriate strategies for each and recommending methods for the development of each category. The theoretical ideal output of development would be to maximise the number, diversity, quality and usage of all the niches and microclimates within the area. In practice, there are abundant opportunities at all levels, many of which can be illustrated by positive examples from the area itself.

1. INDOOR GROWING SPACE (SMALL PRIVATE GROWING SPACES)

E.G. WINDOW BOXES, WINDOW LEDGES, BALCONIES ETC

For many people, the only chance to cultivate a personal growing space is in their homes. Maisonette and flat-dwellers are able to exploit the limited space available to a huge diversity of ends. Indoor growing permits highly intensive cultivation requiring constant high levels of care and attention, such as growing exotic specialities (tropicals or cacti) or the propagation of seedlings. The potential benefits of warm, protected internal environments (accelerated growth, extended season) must be balanced against the dangers of excessive heat and protection (weak, etiolated structure vulnerable to pests and diseases). Frost hardy, native plants require sufficient periods of cold dormancy to maintain normal patterns of growth. Due to restrictions on space, the most appropriate productive use of indoor space would be to generate a constant supply of culinary herbs (e.g. on the kitchen windowsill). The most suitable type of plants would be small, dwarf or even bonsai varieties of tender plants. Whenever possible houseplants should fulfil multiple functions to compensate for restricted numbers. Hence, evergreens that flower and fruit over a long period such as citrus or a prickly pear, satisfy aesthetic and practical demands throughout the year. Windowsills and balconies can accommodate a huge variety of containers including pots, tubs, buckets, growbags, windowboxes and hanging baskets. Observation suggests that between 30 and 50 % of tenants make efforts to grow plants in their flats.

Problems identified in this category include the sourcing of growing media and stocks of plants suitable for these micro-environments. Local trials of

commercial worm bins have demonstrated that they are a safe and sanitary method of converting organic wastes into a high fertility medium.

Approximately 20 -25% of the volume of domestic refuse is made up of material suitable for digestion by a worm (*Eisenia foetida*) composting system. Bins of varying size and design are available to provide for the output of one to four people.

Schemes to provide free or subsidised units (such as are run by many local authorities including Doncaster) could be used to encourage tenants to recycle their own waste products into a versatile and beneficial potting compost ingredient. It would also be possible to facilitate information-sharing and swapping of successful plantstock between groups of tenants. The capacity of private individuals to self-organise and generate mutual support could be greatly enhanced by the appointment of a gardener-in-the-community to help co-ordinate and develop the current level of activity. Sensitive development work facilitating self-empowerment & encouraging networking would make a measurable contribution to the community's wellbeing and coherence, in the context of both indoor and also outdoor personal space.

2. EXTERNAL GARDENS SUBJECT TO THE CONTROL OF AN INDIVIDUAL HOUSEHOLD, RESIDENT OR TENANT

Despite the predominance of high-density public housing in the area, more than half the residents have direct access to their own garden or dedicated growing space. These range from the provision of planters on landings all the way up to the substantial surroundings of houses on Uppertorpe and Springvale. The vast majority, however, are modestly proportioned (15x20ft = 3x4 m). These several thousand gardens provide secure outdoor space for the everyday needs of tenants and have been developed in abundantly diverse and often idiosyncratic ways.

It would be impossible to classify the variety of approaches and plantings present, but it is important to observe and interpret the messages they communicate. The state of gardens can be read to give greater understanding of tenants' lifestyles or self-respect and over time to indicate improvement or decline in the population's coherence and continuity. A thriving garden represents the achievements and dedication of the inhabitants to the outside world. Any initiatives to co-ordinate development on this level should begin with an appreciation of existing successful examples, identifying key elements of structure and cultivation and attempt to replicate best practices.

An illustration of the impact that well used private space can have in generating a positive impression of the area is provided by the landing planters integral to the design of the low rise flats on Bonville, Dover and

Morpeth Gardens. The majority of these are imaginatively planted providing all year colour and interest not only to the tenants but also to passengers travelling along Netherthorpe Road on the Supertram.

Approximately half the stock of gardens in the area can be identified as being attached to the older, private houses in the vicinity of Daniel Hill, Blake Street and at the back of the Kelvin site. These are mostly the back yards of terraced housing dating from the last century. Their potential is limited by the quality of the soil which will often be found to be highly mineralised due to the constant addition of coal ash over a period of many decades, which has created poor soil structure and aeration. Choices of plants tolerant of poor conditions and soil improvement by the addition of large or regular doses of organic matter can both be employed to remedy this deficiency. Where mature standard trees are present, problems such as overshadowing and competition for water and nutrients limit space and restrict the range of plants able to survive. Often it is only established perennials suitable for the dark, dry understorey which can compete with the trees.

Gardens attached to the bungalows on the traffic-free Springvale estate provide an example of how social trends can be deduced from their state. Ten years ago, these properties were almost exclusively dedicated to elderly tenants who almost unanimously tended their small plots with great care and attention. This reflected a stable and settled population with sufficient time and money to engage in ornamental cultivation as a practical and aesthetic hobby. Present inspection reveals a marked decline in the usage and standards maintained in these gardens due to changes in the tenant population.

Without wishing to impose higher standards upon tenants, improvements could be achieved by generating strategies which facilitate skill-sharing and encourage active gardeners to assist the inactive or unable. Capacity-building work such as encouraging informal garden clubs and shared-interest networks could once again be undertaken by a gardener in the community, ideally recruited from local tenants themselves.

Refurbished maisonettes and newly built housing association properties include the provision of garden space as an integral part of their design. Hence, the area will have gained approximately 500 new private gardens at completion of current projects. In the case of Crookesmoor Drive and the brownfield Kelvin site, new tenants will be taking on gardens with highly disturbed subsoils covered by imported topsoil of uncertain derivation and quality. In such cases, the installation of minimal planting such as turf and hedging by contractors is justifiable in order to improve the immediate

appearance of newly completed schemes, but should not dictate to future tenants who will decide individually the content and use of their gardens. In this situation, with many new tenants and first-time buyers or occupants, a prime opportunity exists to deliver ongoing assistance for the first few years of occupation, to compensate for the inexperience of new tenants and the inadequacies of the sites.

3. INTERZONE BETWEEN PRIVATE AND PUBLIC SPACE (including VERGES AND OTHER OPEN AREAS WITHIN CURTILAGE OF HOUSING)

This category refers to unoccupied public space which can be claimed and cared for by private individuals. It includes odd leftover spaces, verges and some of the land in curtilage around blocks of flats. These provide a valuable opportunity for common ownership and management, and could compensate tenants who presently only have restricted access.

The interzone can be identified as offering a relatively unique range of habitats and could be said to be a distinguishing feature of complex disturbed inner-city areas.

This category contains a subset of the overall categorisation, since people have adopted spaces of all sizes and improved them. Many examples can be found of small scale use of windowsills in shared stairwells and lobbies for simple houseplants, such as geraniums and spider plants. One tenant on Bramwell Street even went to the extent of blocking in her landing with rigid plastic sheets to create a conservatory.

Tenants on Burns Road have effectively claimed the shared land in curtilage around their bungalows, creating a very pleasant communal garden to sit in and talk to the neighbours and passers by. The council's landscape services and the mowing gangs acknowledge these developments and are happy to adapt their maintenance regimes to take into account private planting on public space. Initiatives of this kind demonstrate that a proportion of tenants do tangibly express the need for more growing space and that, if conscientiously maintained, such colonisation can augment the richness and diversity of the environment on people's doorsteps.

Examples of this kind represent the genuine, ongoing commitment of local residents to their local space and will only endure with the consent of the majority. Taking into account the absence of provision of manageable-scale spaces such as allotments in the whole area, it is understandable and justifiable that keen cultivators claim the nearest greenspace to their homes. These types of occupation of common land demonstrate a high degree of social responsibility and should be welcomed and applauded.

The motivation for such usage comes from particular individuals and cannot be imposed, however, opportunities can be restricted by excessive amenity

planting which can dissuade and prevent the possibility of local adoption and control of open spaces. Greater acknowledgement of the value of these voluntary initiatives by authorities responsible for planning and design has developed over the past five years and many of the refurbished maisonettes have semi-private, shared garden space in place of the anonymous turf which previously covered the land in curtilage around these blocks.

In some cases it may even be desirable to install infrastructure and ensure soil improvement instead of filling spaces with monocultures of the kind of no-maintenance perennial shrubs which add little more than a splash of dark green all year and may be more suitable for a motorway verge than the corner of a residential street. Whereas commercial considerations restrict and define options for service contractors in terms of the diversity of initial plantings and their ability to deliver ongoing maintenance programmes, community-led responsibility can ensure that specific care regimes and more complex planting concepts are achieved.

Several pre-existing models for occupation and usage of this interzone can be cited to demonstrate formal precedents in addition to the examples of local community initiatives already referred to above. Hanging baskets have become a distinctive feature of many public houses and sponsorship has been negotiated to maintain many roadside sites around Sheffield. These recent phenomena underline the fact that commercial interests can be served by improvements to their environs. The value added to the locality of business operations can actually have greater impact where it is in contrast to its surroundings, as is the case in the commercial quarter of NWICA.

4. FORMAL, MAINTAINED GARDENS ASSOCIATED WITH PUBLIC HOUSING AND OTHER BUILDINGS).

There are numerous examples within the area of a historical commitment on the part of the municipal authorities to install a wide range of formal, maintained, public facilities to compensate for the lack of private garden provision. These are apparent in many forms from the many rose beds and concrete planters on the streets to larger spaces which could be classified as 'pocket parks', and can also be seen in the remnants of previous developments linked to several public buildings within the area.

The overwhelming impression of these gardens is that they have lacked maintenance and fallen into a state of neglect. Having been designed for regular maintenance and clearly defined as the responsibility of the public authorities, cuts in public expenditure and 'rationalisations' of the council's role meant that they were ignored and deteriorated. This can be identified as partly being due to excessively high expectations on the part of the

original designers, installing plantings which were felt to be inaccessible to local people and were consequently not adopted by them when council maintenance ceased. Hence part of the tower block refurbishment involved the removal of extensive formal, paved and hedged garden areas.

The community's acceptance or rejection of designs within this category can be shown to be pivotal to their success or failure. This is illustrated by the neglected air of the older parts of Daisy Bank and the underuse of even new installations such as the circular seating area on Jericho Street. Active community adoption of these sites has not taken place and in some ways dooms them to drawn out neglect. As outlined in the section on resources, there is considerable support available for community environmental projects but their real long term success rests on gaining sustained and significant community involvement.

In the case of garden space closely associated with public buildings, continuity of use is equally important. Many developments can only be justified if they are actually used and adopted by local residents. Without this missing component of long-term responsibility, projects can deteriorate as have the wildlife garden outside Netherthorpe School and the concrete planters outside Upperthorpe Library. Conversely, abandonment can also provide new opportunities for redevelopment and a fresh start. Recent initiatives have provided an area of walled beds on a steep slope at St Bartholomew's Church which is wheelchair accessible and the recreation of perennial plantings at Crookesmoor Community Centre, including a small orchard.

Strategies for enhancing and co-ordinating the community's use and strengthen their sense of ownership of facilities such as schools, community centres and even old people's homes could be developed much further, since these buildings offer protected, defensible, safe space and would be suitable as meeting points for a network of communal gardening projects. Environmental/gardening projects centred on these types of buildings can start off with the great advantage of already having significant community involvement, albeit previously restricted to the inside of the buildings.

5. MINOR OPEN SPACES.

A baseline for minor open spaces can be conceived to the effect that they should all possess sufficient basic amenities necessary to permit usage, namely bins, benches, paths. Those deficient in this minimal provision should have priority for remedial spending preferably before any grand plans are enacted on other nearby spaces. The benefits of investment in one area

can displace social problems to other places nearby, especially if those others are run down and neglected.

Repeated public consultations have established that local people prefer the sense of openness generated by the large expanses of mown grass in the area, especially the area in and around Port Mahon. Eye-level sight lines along walkways reassure residents that they are safe from muggers. The dominance of mown grass to achieve this aim is due to the constraints on maintenance budgets. However, various imaginative alternatives to monotonous turf could be achieved at reduced cost of maintenance.

Disturbed soils, such as those generated by major building work, provide opportunities for wildflower breaks. Where appropriate, these can sometimes even be achieved by managed neglect, permitting indigenous windblown species to recolonise and develop through a succession of populations over a period of years finally delivering the naturally selected climax vegetation for that soil and microclimate.

Land within the category of minor open space could also be conceived of as offering opportunities to provide substitutes for environmental components which are absent from the area. Hence they could supply space for communal allotment and leisure gardening organised as formal projects, such as happens already on the Blake Street site. Alternatively, small sites can be viewed as a continuous network with the potential to provide an edible landscape of fruit and nut trees suitable for browsing wildlife and humans.

Examples prompting and demonstrating this idea can be found in the recent installation of fruit trees at Daniel Hill Peace Garden (by SWT.) and the clumps of apple, plum and cherry around Martin and Oxford St tower blocks (by D.B.S.). Mature specimen trees have also been identified, such as three 30 foot almonds in the vicinity of Edward St flats, which fruited prodigiously in 1997, suggesting that the concept of an edible environment has been acknowledged in the past.

Once again, existing examples of good practice can be identified from within the area in respect of playground provision. The circular design of Edward St flats provides the ideal site for play equipment for young children, protected from traffic and overlooked by their parents' flats. These principles, derived from observation and experience, have been adopted as a policy by the Environment topic group of NWICA, together with recommendations for adventure play facilities where teenagers are already inclined to gather, further away from housing but still within view.

MUNICIPAL PLANTING

Much of this can be deeply unattractive with a bare 'green desert' appearance of (often badly done) mown grass and 'lollipop trees'. Huge clumps of overgrown shrubs look dark and affect street safety. They collect litter (their overgrown appearance encourages people to dump litter in them) and, due to inadequate maintenance and poor siting, overgrow paths and create too much shade. Many lack colour for much of the year. There is often an overwhelming atmosphere of neglect and decay.

Some of the tree planting, especially some of the most recent is extremely poor and even counter-productive to what was intended. The landscape architects from Design and Building Services planned for a 50% failure rate when they planted trees around the Hillside Tower blocks. They achieved this with ease by planting the trees at the wrong time of the year; poorly planting some of them; choosing too large trees which were 'stunned' by planting; poor maintenance; poor siting and arranging them in straight lines which attracts vandals, and failing to involve the community (eg the tenants association and environmental groups such as PEG). The resultant awful looking dead and dying trees, some from the poor planting practices and some from vandalism, increase the fears and despondency of the community.

The vast majority of planting is at ground level only with little attempt to utilise the many levels which the buildings and layout of the area offer. Planting on the ground level is vulnerable to disturbance. More raised beds, hanging baskets, wall and roof plantings and trees and bushes of differing heights could all green and soften the visual aspect of the area.

BIODIVERSITY OF CATEGORIES 1 - 4

PLANTS

Gardens under the control of individual householders contain the widest variety of plants due to individual preferences and resources of gardeners. An enormous variety of often continuously changing native and exotic species of flower, shrub and tree can be found. These are impossible to list. Extreme levels of disturbance (cars, humans, dogs, cats etc) limit wildlife. Some gardens may contain far more wildlife due to being bigger, better planted up and less disturbed.

Nature conservation groups have helped spread the idea of wildlife gardening whereby particular wildlife-friendly plants are grown or allowed to remain. This can be encouraged further with locally produced and disseminated information and advice.

Verges, gardens and other open areas within curtilage of housing (the Interzone) are dominated by mown grass, dense shrubberies and 'lollipop' trees and are known to environmentalists as 'green deserts'. Their value to

wildlife is often very low and their biodiversity is at a minimum. Some of the most botanically interesting and wildlife rich areas occur where neglect or ground disturbance (ie anything which breaks open the dense grass turf) allows other plants, either wind-borne or deposited in other ways, to germinate and grow. In particular, many of these plants suit butterflies (eg Buddleja, Nettles and Knapweed) and seed-eating birds (Thistles, Teasels and Birch).

Shrubs dominate many areas planted by the Council. Many are exotics (eg Cotoneaster, Viburnum, Mahonia and Pyracantha) and have little wildlife value for most of the year. In hard winters, however, they become a valuable food source for wandering flocks of thrushes (eg Mistle Thrush, Blackbird, Fieldfare and Redwing). This is because the countryside, due to destructive intensive agriculture, often lacks enough berries. In any case, native berries may have been exhausted by late winter. Many of the municipal plantings have hard berries throughout the winter which soften (blet) on the bushes and become a food source later in the winter.

There is little doubt that Council Departments have much to learn about how their landscape design and maintenance regimes could be improved to benefit wildlife (and be hugely better for people too!). Simple things such as soil improvement to allow plants to thrive without the need for chemical sprays, with less watering and with less chemical weeding could be used. The provision of bird (eg Robin and Tit boxes, artificial House Martin/Swallow nests and bat boxes) is another cheap possibility.

INSECTS. Biodiversity of insect species may be very variable over the area in gardens. The use of chemicals and the cultivation of many exotic species may limit insect populations. However there is no doubt that many more foodplants are available in private gardens. Plants which particularly attract insects such as butterflies add considerably to the attractiveness of the area in summer. Insect biodiversity is not just a question of interest to academics or insect fans but is of great importance to gardeners who need insects for pollinating their plants (eg Bees) and insect predators (eg Ladybirds, Lacewings and Hoverflies) to feed off their insect pests.

Areas maintained by the Council have seen much reduced amounts of chemical spraying over the last ten years. Unfortunately in the last two years the amount of chemicals used has gone up in an attempt to give a quick solution to the weed problems caused general lack of maintenance due to the Council's overall budgetary problems. The chemicals are being used on the areas of lowest wildlife value but they undoubtedly depress them further. It is not known how dangerous in the long term the chemicals being used are but they could be causing harm to food chains and top-order

species in particular (eg birds and mammals). Some of the refurbished areas of housing in Netherthorpe have seen indiscriminate and totally unjustified widespread spraying of herbicides.

MAMMALS. Unfortunately many gardens contain a predator which limits bird and mammal populations. Cats often greatly reduce bird and mammal numbers because they are highly proficient predators who can take healthy adult victims as well as the young or sick. Popular myths (often whipped up by pro-shooting and anti-environmentalism organisations) blame Carrion Crows and Magpies but these tend only to take replaceable young or eggs and not adults. Magpies and Crows may also fall victim to cats!

The NWICA area; moving away from the Ponderosa; across Crookesmoor and Walkley, is visited by the largest wild mammal found in NWICA; the Fox (although some controversy remains over alleged deer droppings found at Kelham Island in the 1980s). Foxes may be able to lie up hidden in the largest gardens in Walkley as well as the odd bit of green space. Foxes, though, are wary of engaging with domestic cats or dogs in disputes in which they are most likely to lose. Brown Rats and House Mice are present in many parts of NWICA, including in some residents homes! Bats are usually represented by Pipistrelle Bats, the commonest urban bat, although others may feed over the area or even roost in larger trees or even older buildings.

MAJOR OPEN SPACES; THE PONDEROSA BACKGROUND HISTORY

The Ponderosa has been a substantial (c.10.5 hectares) open area in inner-city Sheffield since it was cleared of housing in the period 1956-62. Some of the site had earlier been left open (on the top half and known as Crookesmoor Recreation Ground; usually shortened to Crookesmoor Rec) when large-scale housing was built towards the end of the last century. The lower half was covered with buildings, both housing and industrial works, and was known as Port Mahon. Prior to the Industrial Revolution era the whole site had been directly connected to open countryside with smallholdings and farms nearby in Walkley.

In the 18th century it had been a noted beauty spot with a stream and a series of ponds. There are old (18th and 19th century) botanical records showing that it was moorland with wet, boggy areas.

As the Industrial Revolution proceeded in the 18th century, the area around Kelham Island and along to Neepsend became an increasingly industrial area with metal-working and production very prominent.

After the Victorian house building and further developments up to the slum clearances of the 1950s, the Ponderosa was probably not of much wildlife value. The small industrial works on Port Mahon undoubtedly left some contamination. The air quality would have been quite poor with substantial soot deposition and probably some toxic contaminants deposited. The top half of the site was a privately owned landfill site in the late Victorian era with large amounts of rubble and rubbish deposited there.

However clean air legislation and the opening up of the site in the period 1953 to 1963, with subsequent tree planting, has given it a chance to develop as an interesting inner-city haven of wildlife; a green physical and psychological break from the drab concrete of Netherthorpe and the run down, neglected atmosphere of Upperthorpe, and an important (though much underused) community resource.

Photographs, amateur film footage and local memories of the Ponderosa from the 1960s reveal a bare open bowl which was, however, much appreciated and used by the local community for games and community events. The name '*Ponderosa*' came from the name of the ranch in the popular 1960s television series which local people readily compared in appearance to their own green space. The name has positive connotations of a sense of local ownership and lent itself well to the vociferous campaigning by local people in 1993 against a plan to cover it with large-scale housing; '*get off our land!*'

The flora is virtually no trace of its original wet moorland origins (there is now no moorland, open water or marsh on the site) but it has received many phases of planting and disturbance so that it has a wide range of trees, shrubs and flowers. An area alongside the top of Oxford Street now covered in Laurel and other recently planted ornamental shrubs may conceal a small remnant of rock out-cropping and have some original soil.

The whole site thus consists of layers of assorted building debris, rubbish and other dumped material overlaid with imported topsoil. The predominant vegetation has been short-mown perennial grasses which excludes other plants highly efficiently.

Since the housing programme of the 1950s and 60s Sheffield City Council has carried out various bits of landscaping work and plantings. In the 1970s a range of native and exotic ornamental trees and shrubs have been planted. In the early 1990s the foundations of some buildings (a community building and education centre) were removed and the area covered in topsoil and sown with a wildflower seed mixture; some species from this continue to grow or even thrive.

The Ponderosa is home to an interesting variety of wildlife, especially birds. It has had little damage due to chemical spraying in recent years and atmospheric pollution problems have changed greatly since the demise of much of the engineering, cutlery and steel works in Sheffield. Air pollution from motor traffic has greatly increased in recent years and may be a problem, especially for housing immediately adjacent to main roads, perhaps even affecting the safety of crops grown on the Ponderosa (this has not been scientifically measured). The gully area alongside the football pitch, at the bottom of the South Bank, is a frost and mist pocket and is probably the main area where air pollutants can linger and settle.

By 1991 three Council Departments owned it; mainly **Housing** with a football pitch owned by the **Recreation Department** and a residual area owned by **Land & Planning**. The Council, or to be more specific the Housing Department as owners, neglected the site. They mainly cut the grass. Paths were left unswept with broken glass and there were no bins or benches. It has a lot of litter and is mainly used by dog walkers which leads to more problems and disuse (dog mess is a continual local issue). The poor quality football pitch is used by teams from outside the area. Despite this, it is well liked for the visual relief from the tower blocks and maisonettes which dominate the area.

In 1991 Chris Sissons, lay worker at Crookesmoor Methodist Church, decided to form the **Ponderosa Environmental Group (PEG)**. It was widely advertised in the local community and there was a well attended inaugural meeting on 28 January 1991. The group was properly constituted, very much along the lines in which thousands of voluntary environmental groups are operating nationally, and its aims were:

1. Keep members informed so that they can be involved in decision making.
2. Raise funds for improvements to the Ponderosa.
3. Liaise with the City Council and other groups in the area.
4. Organise work on the Ponderosa.
5. Organise educational and recreational activities.

Many local people attended consultation meetings and 180 members joined the group. £4000 was obtained from the Council's Community Chest and some other money was raised. The group was insured for practical work as a member of the British Trust for Conservation Volunteers. Trees were planted and a path was built. There was also a fun day in the summer of 1991.

This was a good start. As is normal, those willing to take an active part dwindled. The core of the group was younger people with experience of

conservation, environmental and gardening work. As a self-contained group it could have satisfactorily carried on, working with the Council's **Recreation Department (now the Parks & Open Spaces Division)** and other environmental groups such as **Sheffield Wildlife Trust** and the **Sheffield Environmental Training**.

During this initial phase PEG members learnt a lot about the site itself and what the people who use it want from it. Its activities increased public awareness of the site and gained local approval and even enthusiasm. During 1993 PEG became involved with local people and community groups in successfully opposing proposals to build houses on the lower part of the Ponderosa (formerly Port Mahon). This showed the high value of the Ponderosa as an open space amidst the tower blocks and housing estates of Netherthorpe. It is widely appreciated for its wildlife, its views of Sheffield, its use as a play area for children, a place to walk for adults and as an asset to the community which can be of real practical benefit.

The **Sheffield Parks Regeneration Strategy** (October 1993, Cinteract Consultancy Services for Sheffield Wildlife Trust and Sheffield City Council) contained the following entry:

Crookesmoor Open Space is known as 'The Ponderosa'. Its landscape qualities are much diminished by the low-grade soccer pitch in the middle, and the poor architectural quality of some of the prominent post-war buildings near to the park. A 'Ponderosa Environmental Group' is active and supported by Sheffield Wildlife Trust.

Proposal: *A management plan to include design proposals for landscape improvement, is recommended. The adjoining housing areas provide a most worthy constituency for the development of a neighbourhood park which should retain the excellent views of the urban landscape beyond, whilst enhancing the wildlife habitat and improving visitor comfort by adding seats and pathways.*

THE THREE PARKS CONCEPT

Any overview of parks provision for the area must conclude that the three major parks (Weston, Crookes Valley and the Ponderosa) possess qualities and facilities that are highly complementary to each other and that when considered together, they supply a comprehensive, relatively complete, range of habitats for wildlife and human usage. The combination of formal and informal styles and range of water and land-based recreational opportunities so near to the city centre constitute an invaluable asset to everyone who lives and works in the area.

A longstanding agreement exists between interested parties (Weston Park Trust, Museum Services, Sheffield University, Friends of Crookes Valley,

Council departments, Ponderosa Group) to the effect that future developments should highlight and enhance the linkage between the three and that co-ordinated improvements would be to the mutual benefit of all. Specific proposals include generating interpretation and information which could share a common identity and would refer the visitor from one site to the others. An opportunity exists to develop the three parks together as an outstanding recreational facility.

FUTURE EXPANSION OF THE PONDEROSA

The ideal opportunity will shortly exist to complete an important link between the University and Kelham Island when St Stephen's Walk is demolished. This can include pedestrian and cycle access from one site to another. This would enhance the existing impression of continuous green space, extending out from the Ponderosa to the surrounding land in curtilage.

PONDEROSA ENVIRONMENTAL SURVEY

In 1993 the **Ponderosa Environmental Group** compiled an **environmental survey** of the site giving basic information about what is already on site and detailing, through yearly updates of its **Information Pack**, what work it has carried out. The whole site is recovering from its previous uses and most of the subsoils are either building rubble or tipping wastes. However, a range of habitats have already evolved; each of which has its own wildlife and offers different opportunities for activity and development.

The description of these zones was supposed to provide a continuity of approach which would allow the Ponderosa to develop as common land for local people to use and enjoy, whilst also enhancing its value for wildlife. PEG's basic strategy was to allow the site to continue to regenerate as it has already done, and to gradually encourage improvements which will increase the variety of plants, wildlife and human interest. It was hoped to introduce many of the ideas and aims of **Permaculture** onto the Ponderosa.

HABITAT ZONES ON THE PONDEROSA

1 ASH & MUNICIPAL TREES

This is about 10m by 100m with a slight slope to east. 6-12 hours of sunlight (W/S), shaded by tree canopy in summer. Soil: wet clay & some turf. Tarmac path. The existing dominant species are mature Ash, Sycamore, Holly, Laurel, Hawthorn with Ivy undergrowth.

WORK DONE: Path cleared of grass & undergrowth cut back. Bird & Bat boxes put in some trees (summer 1993). Daffodils planted in clumps by path (Dec 1993).

MANAGEMENT PROPOSALS: Transplant Ash & Holly seedlings. Clear Ivy & plant more shrubs. Bulb planting & possible butterfly garden (ie shrubs & plants that are attractive to insects, especially butterflies & moths).

2 ORCHARD & WILDFLOWER GARDENS

This is about 20m by 40 m with a slight slope facing south. It receives 6-12 hours of sunlight (winter summer) & its soil is 50-100 cm of ash on top of clay turf. The existing dominant species are plantains, grasses & wormwood.

WORK DONE: Tree nursery and leafmould heap. Orchard species planted close to path. Previously sown with wildflower seed.

MANAGEMENT PROPOSALS: Extend orchard plantings (trees & soft fruit) with companion plantings. Remove ash/sycamore saplings as required.

3 ORCHARD

30m by 30m with a slight concave slope to the south. 6-12 hours of sunlight (W/S). Soil: 50-100 cm ash on top of heavy clay turf. The existing dominant species are plantains, grasses, broom & wormwood.

WORK DONE: 16 fruit trees planted in Feb 1992 (14 surviving). Mulched Feb 1993. 22 fruit trees & soft fruits planted in Jan. 1994. Fertilised and organics added. 3 old apple trees pruned. This work earned the Ponderosa Environmental Group 2nd place in the 1994 Sheffield Telegraph/South Yorkshire Foundation Community awards (which judged all kinds of community projects across South Yorkshire). In 1995/6 2 island beds created, planted with perennial herbs and flowers (unfortunately damaged by contractor's mowing operations!). 50 hazel and cobnut cultivars planted and mulched.

MANAGEMENT PROPOSALS: Add to orchard species. Increase cultivation of edges for soft fruit & place companion plants around orchard trees. Mulch around trees with hay/muck.

4 MEADOWS

50m by 40m by 30m triangle with a slight slope to the south. 4-10 hours of sunlight (W/S). Soil: thick clay & town soil turf. The existing dominant species are perennial grasses & broom.

WORK DONE: Mowed early each summer. Hay raked off & stacked.

MANAGEMENT PROPOSALS: Manage site to produce early & late hay meadows by scything/mowing regime, raking & seeding. Some planting eg Cowslips. This would be, due to its higher soil quality, the best area to site a community allotment area.

5 ASH HEAP

30m by 30m by 20m triangle with a concave slope to SE. 4-8 hours of sunlight (W/S). Soil: municipal ash, clinker, pottery shards & coal dust. No

topsoil. The existing dominant species are small grasses, broom, gorse, vetch, Black Poplar, Sycamore.

WORK DONE: Ash excavated Feb 1991. Some trees (Ash & Sycamore) felled Winter 1993/4.

MANAGEMENT PROPOSALS: Manage as low fertility wildflower area. Remove growth (leguminous species & trees). Clear some Sycamore & interplant with shrubs (eg Broom & Gorse). Create more seating on mound & remove trees to open up views & create a picnic area.

6 WEST BANK

50m by 120m with a very steep slope facing east (c.1:3). 3-6 hours of sunlight (W/S). Soil: thick turf (20-30cm deep) over rubble structure. The existing dominant species are tough grasses & a wide variety of mixed trees & shrubs.

WORK DONE: 100 indigenous trees planted in 1992. Bat & bird boxes put up summer 1993. Paths cleared & privet hedge, at top, trimmed Feb 1993; grubbed out 1995/6. 3 large sycamores removed at top of Oxford St to open up entrance. Mass daffodil planting along paths winter 1994/5.

MANAGEMENT PROPOSALS: Prune shrubs. Open up view lines. Extend planted area: shrubs with some trees for nesting/roosting/feeding birds (eg warblers, thrushes & finches); thorny species (eg Gorse) to reduce disturbance by sledging; berry-bearing shrubs/trees for winter birds (eg Rowan, Blackthorn & Hawthorn).

7 MATURE TREES

15m by 30m with a steep (c.1:4) slope facing north. 2-6 hours of sunlight (W/S) but has a complete canopy in summer. Soil: clay on rubble. The existing dominant species are mature Norwegian Maple, Rowan, Apple, Elder & Lime. Very little ground cover.

WORK DONE: Rubbish cleared (most recently Feb 1994). 3 trees coppiced June 1992. 2 coppiced Oct/Nov 1993. 50 indigenous trees planted in 1992. Trees & shrubs transplanted from Crookes Valley Park, Oct/Nov 1993 including Yew, Wych Elm & Holly. Bulbs planted in clusters, September 1993 including Wood Anemone & Nodding Star of Bethlehem. Bird & Bat boxes put up summer 1993.

MANAGEMENT PROPOSALS: More planting of trees, shrubs & bulbs, especially Cherry, Bluebell & Ramsons.

8 SOUTH BANK

50m by 200m with a steep (c.1:4) slope to the north. 3-8 hours of sunlight (W/S). Soil: thick clay turf on brick & rubble. Subsidence still occurring with cellars of previous houses now exposed in places. The existing dominant species are thick grasses and c.500 maturing, mixed trees.

WORK DONE: 1,200 mixed indigenous saplings planted 1991-2. Weeded Nov 1993 and mulched 1994 & 1995. c.150 trees & shrubs transplanted from Crookes Valley Park in Oct/Nov 1993 incl. Ash, Oak, Beech, Holly & Horse Chestnut. Rubbish cleared Feb 1994. Bulbs planted in clumps winter 1994/5. Over 100 hazels planted December 1995. The large-scale planting is intended to develop as woodland and, through leaf deposition, to create an improved soil structure and depth. As this develops the grass turf underneath should diminish to allow other plants to grow there.

MANAGEMENT PROPOSALS: More planting of trees & shrubs to diversify flora and take advantage of long term improvements in soil and micro-climates. Path creation along contour and zig-zag up & down slope.

9 GRASS BANKING AROUND FOOTBALL PITCH

10m by 200m circular strip with steep (c.1:4) slope to south & east. 4-12 hours of sunlight (W/S). Soil: thick clay turf on rubble. The existing dominant species are tough grasses, plantains, clover, nettles, horseradish, comfrey & ruderals. Some shrubs including Buddleja, Gorse & Rose.

WORK DONE: Rubbish cleared. Mown July 1992. Some clumps of Japanese Knotweed grubbed out Aug 1992. Daffodils planted on bank north from pitch.

MANAGEMENT PROPOSALS: Extend shrub area. Plant tough perennials, especially seed bearers for winter birds (eg teasels & thistles for finches). Mow & rake hay.

10 FOOTBALL PITCH

30m by 60m and is flat. 6-12 hours of sunlight (W/S). Soil: variable turf on mixed rubble and subsoil. Rubble occasionally breaking through surface. The existing dominant species are short grasses & daisies. The area is severely underused; often teams are from outside the area.

WORK DONE: Rubbish cleared.

MANAGEMENT PROPOSALS: (if football pitch is retained) Rake bare patches. Improve soil. Plant tough grasses. Optimum site for community allotments/garden.

11 LOWER HALF OF SITE (INCLUDING PORT MAHON AREA)

500m by 750m. 10-18 hours of sunlight (W/S). Soil: well drained thick turf on house and factory rubble subsoil. Subsidence over old cellars visible in several areas. Clumps & rows of maturing trees.

WORK DONE: Rubbish cleared. Council agrees to sweep pathways of broken glass etc once building work complete. Mass planting of daffodil and crocus bulbs around trees and on slopes. Unfortunately there has been

repeated damage to the bulbs caused by careless and unthinking mowing carried out by SCC Landscape Services.

MANAGEMENT PROPOSALS: Allow grass to grow longer around trees. Complete bulb planting around trees & on slopes.

12 MARTIN ST TOWERBLOCKS 400m by 10 - 30m. South-facing, gentle slopes. Sheltered walls 1 - 5m tall. Soil: Severely degraded by tipping of wastes from recent refurbishments.

WORK DONE: Area around Hillside (Martin St) tower blocks landscaped by Design Building Services against local advice. The path network is an obstacle course for push chairs etc. and the standard trees are attractive to vandals whilst being poor for wildlife. Area around Hillside tower blocks (Martin St) landscaped, by Design and Building Services, after building work with standard trees and smaller fruit trees (c.30); heavy losses of trees due to poor planting, lack of maintenance and vandalism. Lack of ongoing active community involvement in this landscaping is also thought to have contributed to the relative failure.

MANAGEMENT PROPOSALS: Plant bulbs (daffodil, crocus, snowdrop, tulip etc) around trees & on slopes. Further planting could be made around the bases of the towers. Mulch around fruit trees. Improve paths & access points.

UPDATE: PEG have since planted further species of trees and flowers. The Orchard area has had a variety of fruit trees added to it. There has also been a major programme of bulb planting which has resulted in about 10,000 daffodils and 2,000 croci bulbs being planted all over the site alongside paths and amongst trees. A number of native hazels and cultivars near the orchard and on the south Bank were also added in a "Nutters Day" (December 1995) by PEG volunteers, SCC Countryside Management Unit and volunteers, and students from Sheffield Environmental Training.

The Flora is subject to 2 main influences. Firstly the site has been regenerating from what was mainly an open, cleared site and this has seen various cycles of development such as from highly disturbed ground (eg due to building work) to a more stable closed turf of perennial grasses either kept mown short (with a loss of species diversity) or allowed to grow longer with more species able to thrive, especially when mown at an appropriate time and then raked off to reduce fertility.

Tree planting has greatly changed the site and this is due to the other main influence on the flora; human intervention. Many species found on the Ponderosa have either been planted deliberately or have found their way there in dumped rubbish or imported topsoil. The obvious example of a 'dumped' species is Japanese Knotweed.

A range of over 25 tree species is on the site, most planted there. No one species dominates the site but there are areas where Norway Maple and Sycamore have become abundant which shades out ground flora and out compete other trees.

The South Bank has seen the most extensive intervention through earlier work and the work of PEG since 1991. Over 1,500 native, indigenous saplings have been planted and are now growing up and starting to form woodland. These trees are the most extensive area of new trees in NWICA. Not only do they provide oxygen and help trap air pollution but they are also helping to build soil over the rubble and thin layer of top soil. Eventually the thick mat of perennial grasses will start to be shaded out underneath them and a different ground layer will develop. This can be influenced by further plantings of shrubs, fruit bushes, cane fruits, herbs and flowers. Their leaves will soon provide enough leaf litter to transfer fertility as leafmould to other areas of the Ponderosa.

MAMMALS: The Ponderosa has not been studied for its mammalian fauna but it is unlikely that there is much to be discovered. The occasional Grey Squirrel has successfully crossed the hazard of Crookes Valley Road from Weston Park or Crookes Valley Park but, unlike those two parks, there is little food for them (as yet; the development of planted Hazel trees and the growth of Oak trees will probably help them although this is not an intended benefit for what many people consider to be a vermin species). Hedgehogs and Foxes have been seen whilst Brown Rats occur throughout the whole area. No other rodents have been specifically confirmed but Short tailed Vole, Bank Vole, Common Shrew, House Mouse and Long-tailed-Field Mouse are probably present (Kestrels have been seen hunting for rodents on the Ponderosa).

Weston and Crookes Valley Park are good for bats (bat watches have been held there by various groups including Sorby Natural History Society), due to the combination of open water and mature trees, but the Ponderosa is unlikely to be so good with only Pipistrelles having been positively identified there. Some bat boxes were put up in 1993 but have probably not been used much by bats.

The dominance of perennial grasses could be reduced (and so increase other species) by increased disturbance by mammals such as Moles and Rabbits; neither of which are found on the site due to its enclosure by buildings and roads. The addition of Moles could be a possible introduction as unlike Rabbits they are not likely to be seen and thus be a target for persecution. They could possibly flourish on the south bank, particularly as its woodland matures and provides more leaf litter for soil creation. They

would disturb the soil, aerating it, improving its texture and their 'hills' provide seeding opportunities for new plant species which require open ground to succeed.

CURRENT HUMAN VALUE (EG RECREATION, PRODUCTIVE GARDENING]

In terms of sheer numbers for most of the time, the Ponderosa might be said to be under-used. It often appears empty, save for a few dog walkers; some people crossing it; a few on the new (1996) seating, and small groups of boys or young men playing football. At weekends the formal football pitch (which has only been there, built on infilled rubble, for about ten years) is used by organised teams who book it through the Recreation Department. Many of the teams are not local.

In the summer, play schemes have used the Ponderosa for games such as rounders (a pitch used to be marked out at the bottom of the football pitch). Netherthorpe School holds its sports day here. For the last two years, created through NWICA, a Ponderosa Carnival has been held featuring stalls, side shows, live music and other entertainments.

In the past, especially the 1960s and 1970s, the Ponderosa had much higher levels of use with more community events, sports and informal use. There used to be one storey pre-fabricated buildings on the top half of the site, alongside Oxford Street, which were used by Crookesmoor and Netherthorpe Schools and also by community and adult education groups.

However, it has major uses which are hard to quantify. Anyone who lives in view of it or who crosses it is connecting their senses to a large area of green, open space (17 acres) within an intensely built-up area of municipal housing and industry. The two nearest formal parks, Crookes Valley and Weston Parks, are a steep trek uphill from most of the housing areas.

It was the explicit intention of the planners in the 1950s to restore the valley as open space, removing the buildings on Port Mahon, and so creating what is known today as the Ponderosa. A great debt was owed by local people to those planners but has been repaid by their great efforts in 1993 to prevent a housing association from putting a large area of housing on the site. This was unlikely, in any case, to get planning permission as the whole of the site was designated as Open Space in the 1993 SCC Unitary Development Plan. This designation had been lobbied for by the Ponderosa Environmental Group and was agreed with the Planning Dept.

PEG's intention was not to seek to 'run' the Ponderosa, but to see it used as a community resource; to encourage and help other groups and individuals to use it for their activities. PEG would hopefully act as a pool of local

knowledge and experience available to the Council and other institutions and community groups.

It was also hoped to organise workshops for people to learn more about their local environment and how to improve it and learn new skills. Some of this has already occurred during the programme of working days 1993-95. Meetings included talks on wildlife, ecology, local history and the many uses of common park land. Many local people who were not so keen (or unable to participate because of ill-health, old age or disability) on physical work were able to find much of interest for them. In particular older members of the community who had been residents for some time were particularly interested in the local history as it brought back many memories for them and gave them a chance to share their knowledge and experience with newer or younger members of the community.

It is important to recognise that community groups exist for far more reasons than may appear from their constitutional remit. The role of a community group as a social grouping for people to enjoy, meet new friends and share their experiences is often not appreciated by professional workers with narrow remits of work. Professional workers often see a particular type of work programme (eg landscaping) as the end in itself without realising that the means to an end is just as important as the end itself.

DISINCENTIVES TO USE: Many residents have complained about dog mess in the area, particularly on the Ponderosa. The Ponderosa Environmental Group submitted the following document to the NWICA Environment Topic Group for discussion and the general consensus was that it was an approach at least worth trying. It was felt that the problem of dog mess could not be approached as a 'law and order' issue and that confrontations with dog owners would be counter-productive. It is an issue of education, community cohesion and unity, and landscape design.

PONDEROSA DOG MESS STRATEGY [31/5/95]

The Ponderosa is a large and varied area of mainly grassland and some wooded areas. Much is 'municipal turf' where people walk and play sports, especially children. Other areas are 'wilder' with long grass where fewer people walk and sports are less popular.

Most local people are Council tenants who are not allowed to keep dogs in their flats, although some do. Several hundred dog owners use the site with hardly any stray dogs. Many owners come from outside the immediate area, even in cars. Any information/education programmes would need to take this into account. Despite the volume of mess being dumped on the site, it is not a severe problem, but it can still be very serious for certain users of the site eg young children, football players, picnickers etc because of the danger from **Toxocariasis**:

Toxocariasis is contagious through contact with faeces from dogs which have not been wormed and soil which has been contaminated by dog mess. It can cause blindness in vulnerable individuals and can persist in the ground for up to ten years! There is high awareness of the problem already and this is demonstrated by the numbers of people who presently do not use the Ponderosa, especially parents with small children. On the Ponderosa, it is not known how persistent or prevalent the problem is locally; soil tests will be carried out to determine this in the near future.

Dog mess is more of a problem in the summer (although it breaks down quicker in warm weather) as this is when more children and other people will be on the site.

So where does it all go?

Rain washes away dog mess, the nutrients in the dog manure increase fertility and build topsoil on the Ponderosa. Bacteria in the soil help the breakdown process and manufacturers add calcium to dog food which neutralises noxious smells etc

Our observation of the Ponderosa has revealed another unexpected solution of the problem; **SLUGS** digest dog mess (especially the big black ones (*Arion ater*) and orange frilled species (*Agriolimax agrestis*). Slugs are more numerous in areas of long grass because they can't hide or shelter in close mown turf. There is obviously a foodchain which naturally helps to clear up this material. If we can encourage and maintain colonies of slugs across the Ponderosa in areas of long grass, this will contribute to minimising the dangers of dog dirt.

The next step is to inform dog owners to encourage their dogs to visit long grass to relieve themselves when they are first brought on the site. It is likely that responsible dog owners will set a good example to others. Even if this only limits the infection of Toxocariasis to certain areas, it will allow young children to play safely and school sports to be held on the mown areas without this hazard.

We recommend that extra areas of long grass be created, especially around mature trees on the lower half of the Ponderosa. This would specifically help those unable/unwilling to walk all the way up to the top half. It might be necessary to clarify the situation by a system of marker posts and/or notices as is being used in Crookes Valley Park.

Other strategies such as Poopascoops/dog loos/plastic bags/prosecution are inappropriate and expensive options (especially maintenance of dog loos) and it would be hard to persuade everyone to use them.

We suggest a leaflet should be distributed on the site to dog owners. A copy of this could be put in the NWICAP newsletter. The leaflet could be

put together in conjunction with health authorities and made available with information on Toxocariasis via health facilities eg in doctors waiting rooms and health centres. Schools should also be points of information directly aimed at vulnerable children.

OTHER ENVIRONMENTAL ISSUES.

DEMOGRAPHICS AND RELATED ISSUES

The broad population trends in NWICA are mainly due to the housing changes which involve demolition, refurbishment and new building. There will be more houses and less one bedroom flats. These are tending towards lowering the very high proportion of older people, especially pensioners, single people and many people with long-term health problems and bringing in more younger people and more families. There will be far more children and young people.

This could bring more wealth, more wealth creators and more dynamism to the community but this could be countered by higher crime levels, more violence and more vandalism with increased tensions between the young and old and the haves and have-nots. The health and well-being of NWICA residents could still be under threat. Poverty and unemployment may persist in unacceptably high levels after the main changes introduced by NWICAP have been carried out. A lot will depend on the provision of social facilities and the quality of the environment offered in NWICA, but much will depend on wider environmental, economic, social and political trends which may be beyond the control of any structure of NWICA.

These include the growth of health problems linked to air and water pollution, food contamination and adulteration; the bigger economic issues of unemployment, low-pay and poor working conditions; destructive social trends towards violence and prejudice whether general or aimed at specific social groups (eg misogyny, racism and homophobia); drug (especially alcohol) abuse problems; alienation of people from political processes and decision-making; and the changing relative nature of inequalities. NWICA should be attempting address all these problems but is unlikely to be able to deal with them on its own.

BUILDING DESIGN

Environmentalists have been taking an increasing interest in building design and the planning of housing areas. The key concept is 'sustainability' and this leads to the use of terms such as 'environmentally friendly' or 'environmental impact'. The aim is to analyse the entire through-put of resource use and the effectiveness of designs in making housing areas more efficient users of resources and ensuring that the impact on the natural environment is minimised. However, this should not be seen merely as a dry accounting process as it is also very relevant to quality of life issues.

It is for this reason that Sheffield City Council's project on sustainability (and the implementation of Local Agenda 21 of the 1992 Rio Earth Summit) is called The Living City Initiative. It is led by Steven Byers, SCC's Environmental Policy Co-ordinator. The NWICA regeneration scheme is said to be 'housing-led' and so it could be said that environmentalists should be focusing their attention on the NWICA refurbishment and new-build programme for housing. In fact some of the most important issues have been raised not purely for environmental reasons but more for economic and social reasons, especially as an attempt to alleviate poverty and ill-health.

Unfortunately those Council Departments principally responsible for the design of NWICA, namely Housing, Planning and (the now defunct) Department of Employment and Economic Development have made little reference to, or made little use of the work of, the Environmental Policy Co-ordinator. This failure to build on existing work in this field by the Council has done great damage to the long term success of NWICA. Building designs and area plans have often been already finalised or are well underway without serious consideration of the issues of sustainability. In 1995, after being approached by members of PEG, Susan Gudjonsson, in her role as Environment Topic Group Leader from the Planning Department, circulated a discussion paper about putting together a NWICA Environmental Strategy. It was recognised that this was raising issues that went beyond just the workings of the Environment Topic Group; in particular they overlapped with the Housing Topic Group. Contact was made with Steven Byers, SCC's Environmental Policy Co-ordinator but was not followed up due to the constraints of time and resources. It was identified that a new worker was needed to support the Environment Topic Group, including the Open Spaces Projects. Eventually it was decided that the new worker would be given the title of NWICA Environmental Strategy Co-ordinator and a person was employed in this role.

Unfortunately no further work was done to develop an Environmental Strategy and the worker was subsequently made redundant. Since then, the Planning and Housing Departments have issued, for discussion, a draft **NWICA Environmental Strategy**. As it was then constituted, this was more of a landscaping and planning document but it is hoped to turn this into a fuller, holistic strategy for NWICA.

There are however laws and policies which are already shaping building designs in a more environmentally friendly way. The **Home Energy Conservation Act 1995** requires local authorities to :

- identify ways in which energy efficiency in both public and private housing can be improved by 30% over 10 years and
- outline a strategic approach to achieving this target.

The provision of energy efficient housing which has lower heating bills and is warm and dry is seen by Sheffield City Council to be of great benefit to tenants and residents. It now has a **Sheffield Home Energy Conservation Act Strategy 1996**. Where housing has been refurbished or built with these improvements then these benefits would seem to have been reaped and appreciated very quickly. The Hillside Towerblocks are an outstanding success in this respect. In these refurbished blocks it can be convincingly shown that tenants are now warm, dry and feel more relaxed and content in their homes and that they are achieving this with affordable heating bills.

The Council also gains by this as buildings kept dry are less likely to deteriorate. Contented tenants are more likely to care for their homes and are in a better position to take a more active role in society as workers, community activists and carers. Confidence and a sense of well-being is often created by a stable comfortable home environment.

There is a danger in only providing a quality *internal* environment for residents. A society in which its members simply reside at home or venture out only to leave the area to shop, take leisure or work is not a community in any meaningful sense. Most people are familiar with the concept of 'dormitory towns' with all its implications of dreary suburbia where nobody knows their neighbours and walking down the street or, worst of all, lingering on street corners is seen to be a threat to the moral fabric of that society.

The NWICA area has not only had its share of this in the past but there is a real danger that neglecting to take a holistic approach to redesigning or improving the external environment will exacerbate this tendency, particularly with more young people moving into the area and divisions between them and older residents increasing. A successful community is one in which its members can be economically and socially active, have control of their own decision-making process and can enjoy good health in a sustainable environment which they can productively modify and interact with.

BUILDINGS

Much of the area of public housing, especially the older parts yet to be refurbished, has a harsh, bleak aspect of dreary grey concrete and signs of neglect. Kelvin Flats used to be the outstandingly bad visual intrusion in NWICA but has now gone with a great improvement to the aesthetics of the area. Even this in its lifetime was improved by painting one end of it a

shade of light blue which softened and improved its terrible vista of slabs of concrete.

Much more use could be made of painting and colouring to brighten up the area. In the Lower Don Valley, Sheffield Development Corporation carried out relatively cheap but significant improvements to the appearance of the area by painting the many bridges in bright colours with highlighted features in contrasting colours. Walls and other architectural features could be much improved in NWICA by this simple improvement with considerable scope for community projects. Kelvin Flats use to have aspects of this with 'official' graffiti walls and murals involving children and young people .

Many local people welcome serious attempts to reduce crime but detest the Police turning their area into what looks like a war zone. Complaints against the extreme low level use of the new Police helicopter (with powerful searchlight and loud-hailer) have been made; its use is hazardous, creates panic amongst law-abiding residents and gives the impression that crime is so out of control that military-style policing is required.

RECYCLING OF WASTE MATERIALS IN NWICA

The opportunities in NWICA for recycling various resources are very limited by the availability of space and safe, sanitary facilities. The elderly, infirm and those without cars are unlikely to be able to carry paper, glass, plastic or cloth very far for recycling. There are only 2 possible alternatives that might be tried; regular door-to-door collection or local storage and then collection. At present NWICA is badly served by recycling facilities.

Sheffield Recycling is largely dependant on a few mini-recycling centres and a few specialist schemes operating in specific materials ie. plastics or in geographical areas. In areas of dense housing it makes sense to allocate areas for more recycling points that are convenient for the residents.

Packaging materials such as Glass and Aluminium have value and could provide jobs and economic activity if recycled. Otherwise these and all other materials are a burden to the city in ever increasing costs of disposal. Of even greater value is the reconditioning and repair of furniture and electrical goods or re-use through charity shops or similar projects.

(The Council will make special collections of Fridges (CFCs), asbestos or other toxic substances).

The most immediate use can be made of compostable items in gardens and open spaces especially as much of the soil in the area is of poor quality.

Some small community compost schemes are at **Crookesmoor Community Centre** (Crookesmoor Road) and **Ecology Co** (Crookes Valley Road). The two leaflets that follow have been circulated in the area for the past five years as part of an attempt to promote increased levels of recycling of organic matter.

The Ecology Co Compost Collective produces more than 20 metric tonnes of mature food-grade compost annually.

RECYCLING BUILDING MATERIALS

There is considerable potential for recycling materials from NWICA from refurbishments or demolitions. It requires forward planning and co-ordination. Space has to be set aside so that materials can be stored prior to collection. The example of the rubble of Kelvin Flats being ground down for other construction projects is perhaps not the best example of environmentally-friendly recycling. However there is one notable example of large-scale material being removed and finding a new use.

During the 1994/5 refurbishment of the Hillside Towerblocks, members of the Ponderosa Environmental Group noticed that the old windows being removed were highly suitable for use on allotments. They were about 1m² with thick wooden frames. The builders were carrying the windows out and dumping them in skips. The Housing Department were approached and helped to liaise with the builders, Henry Boots.

Henry Boots responded very positively and stored windows to one side. They also had to ensure that their workers understood what was happening and so avoid breaking the frames and the glass. A regular collection by the Ponderosa Environmental Group using a van lent by a local shop (Bean Beanies Wholefoods) resulted in more than 1,000 windows being recovered. The builders gained by not having to pay to have the considerable bulk of these windows taken away and put into landfill and avoided having lots of broken glass on site. They also earned the appreciation of all those who gained from the new uses for the windows.

These have been distributed to many allotment gardeners (many being on benefits) particularly on the Crookes/Hagg Lane allotments. The windows have been used to make cloches and repair greenhouses and sheds. One gardener has even made a durable and very functional new greenhouse using the windows (and also material from an old bus shelter from the NWICA area which was being replaced).

There undoubtedly are more opportunities for re-using such materials from NWICA but it requires individuals to spot these opportunities and then to chase up whoever can facilitate the necessary arrangements. A major scheme such as NWICA should perhaps try to co-ordinate these opportunities. The use of a vehicle to transport materials is one of the most important resources needed to exploit opportunities as they arise.

AIR QUALITY AND OTHER POLLUTION ISSUES

According to **SHEFFIELD TRENDS SEPTEMBER 1997**

'the most serious source of air pollution now in Sheffield is that produced by traffic. Of particular concern are nitrogen dioxide, fine

particles (produced by diesel engines in particular), hydrocarbon compounds and ozone. This last pollutant can form in high levels as a result of sunlight falling on the mixture of these other pollutants'.

Sheffield Trends also states that *'on a city wide scale, it is not possible to show how air pollution levels vary from area to area. This is due to the use of the limited monitoring equipment to record general levels of air quality across the city. It is hoped that a change in this strategy over the next two years will begin to provide some area based statistics'.*

Since 1985 private cars travelling into the City Centre have increased by 17%. The proximity of NWICA to the City Centre with major traffic routes bordering (Crookes Valley Road and Infirmary Road) or passing through it (Netherthorpe Road), implies that the NWICA area would have suffered increasing air pollution due to the increase in traffic since 1985. In particular the housing either side of the elevated Netherthorpe Road might have been the worst affected part and perhaps should be a priority for local air pollution monitoring. Infirmary Road is at the bottom of the valley and pollution may accumulate here to the detriment of shoppers and shop workers in premises along this road.

The Ponderosa has had little damage due to chemical spraying in recent years but the increased air pollution from motor traffic may be a problem, perhaps even affecting the safety of crops grown on the Ponderosa (lead would be the most likely contaminant but studies are now showing that modern cars shed a variety of toxic heavy metals from various components as they wear eg catalytic converters).

An agreement not to use chemicals on the Ponderosa between the (then) Recreation Department and PEG was successful between 1992 and 1995. Since then, work organised by the Planning Department and Design Building Services has broken this agreement. Orange areas of dead vegetation mark where spraying of herbicides has occurred. Much of this spraying serves no useful effect with workers going out of their way to find areas to spray. Concern has been expressed for the workers themselves due to inadequate protection (face masks, gloves etc) whilst handling herbicides and the dangers associated with prolonged exposure. The housing areas are particularly singled out for chemical dousing, especially when a run of complaints about neglect and poor maintenance have been received. The gully area alongside the football pitch, at the bottom of the South Bank, is a frost and mist pocket and is probably the main area on the Ponderosa where air pollutants can linger and settle and could be described as a pollution sink.

DUST AND DEBRIS FROM BUILDING WORK

The dust from the major building and housing refurbishments in NWICA has undoubtedly been a significant problem at certain times and places. In particular the demolition of Kelvin Flats during 1995 created a major problem for residents and shops near to the site. The demolition took place during a very hot, dry summer and dust continually rose from the site and covered the surrounding area. The direction of the wind spread the dust, sometimes in very concentrated amounts across Upperthorpe shops or across the Infirmary Road/Philadelphia shopping/business area. The scale and duration of the problems was made worse by the granting of permission to grind down the rubble of Kelvin Flats into smaller material for sale direct from the site. This went on long after the last section of Kelvin Flats had come down.

Residents living around the Daniel Hill area of Netherthorpe suffered particularly with large amounts of dust entering their homes coating furniture, carpets, kitchen surfaces, food and becoming a constant nuisance. Some residents complained that it got into their beds, that they could taste it in their mouths for long periods, and that some people with respiratory complaints experienced greater problems than usual.

The demolition company and Sheffield Building Standards Department attempted to ameliorate the problem with screening and water spraying to dampen the dust down but these small efforts were considered by residents to be inadequate. The situation became so worrying for residents that some formed the Upperthorpe Environmental Group. The Building Standards Department tried to respond positively by introducing the first project they had ever carried out in Sheffield to monitor dust levels from a building site. Residents were not reassured to be told that the dust levels were within legal safety limits, mainly due to there being no legal limits! Building sites are not subject to limits as they are legally judged to be temporary phenomena. The rock-crushing operation would have been closed down instantly by Health & Safety Laws if it had been operating from registered business premises as it would have contravened laws; on a temporary building site it was exempt.

In fact some environmentalists and medical experts believe that particulate matter (particular material of a small size known as PM 10) is an under-rated danger as it can cause clogging of lungs at levels of concentration not previously thought to be hazardous. Length of time of exposure to dust is a crucial factor; in the long term it is thought to contribute to heart and lung diseases.

The Kelvin incident has been a particularly bad episode in which some people did suffer unduly. Better screening should have been placed and

better advice and help for residents could have been given. The rest of NWICA is unlikely to experience such a major problem but there have been many minor problems of building work creating a lot of dust which has been breathed in by residents, especially when it enters their homes. The problem is exacerbated by some residents remaining in their homes whilst refurbishment takes place for their home. Many others have had to live close by to major building work for long periods. A notable example of these kind of problems happening elsewhere was during the regeneration of London Docklands where residents of The Isle of Dogs were surrounded for a long time by huge demolition and building work. A school was badly affected and many residents complained of respiratory problems.

The builders in NWICA should undoubtedly take more care and Building Standards Officers need to have a better programme of monitoring and trouble-shooting. The cheapest and most efficient form of monitoring is to listen to local people in a coherent, serious manner which treats them with respect and as the most valuable resource in the regeneration scheme. Spotting and solving problems early on can save money, time and create genuine goodwill on all sides.

LAND CONTAMINATION

As has been outlined earlier, most of the area's subsoils contain large amounts of building rubble and tipping wastes. Upper levels of these additions to the substrate are characterised by relatively inert matter such as bricks, mortar, tarmac, flagstones, glass, roofslates and kiln lining. Although the presence of so much alien material can make cultivation difficult and soil-depth can be very thin and variable, drainage is often further improved and the gradual attrition of lime derived from mortar has improved the pH balance. There may be pockets of toxic material. The re-building on the Kelvin Flats site was rumoured to have been delayed whilst reports of dangerous contamination (possibly cadmium) were investigated.

More recent tipping contamination (in the last five years) has introduced noxious materials which should be regarded as actual pollutants, such as asbestos, plastics, composites and electricals, all of which are eco-toxins and could present dangers if disturbed in future.

The massive building work going on in NWICA has not, in the opinion of some residents, been adequately monitored. Complaints about waste dumping (debris from buildings is often simply flattened by tractors and then covered with a thin layer of topsoil; this has been seen to include tins of paint, chemical drums, refrigerators etc) and the (illegal) burning of plastics and other noxious material, as well as numerous safety problems have not been properly dealt with. When PEG members contacted the Building Standards Department about the dumping and burning of rubbish from the

Hillside Towerblocks, they were told over the phone that these activities were 'totally illegal' but no further action was taken and a promised report back was never given to PEG.

LIGHT POLLUTION

It is recognised by many people, from environmentalists to astronomers that light pollution is a problem to be taken seriously. Energy is wasted by lighting up the sky as well as making stellar observations more difficult. Modern lighting designs can obviate this growing problem but the Planning Department have been impervious to comments from residents about this. There is also a community safety issue here as the street light design makes it difficult for people up in towerblocks to see people down under the lights in the glare. This means that at night people out walking who think they are safe because an area is well lit, may actually be vulnerable as residents cannot see them. This is particularly important for the crossings on the Ponderosa where the security of having overlooking dwellings and their residents could be impaired by light pollution.

TRANSPORT/MOBILITY ACROSS NWICA

Before NWICA was created in 1993, a city-wide study of areas of poverty (by Alan McGauley, then a Sheffield City Council Department of Employment & Economic Development officer, (using 1991 census data) showed that the Netherthorpe Ward area had a very low percentage of car ownership by households. About 80% of households were non-car-owning. This was an indicator not merely of poverty in the sense of not being able to afford a car but, due to the way cars are used in society, is an indicator of social and environmental deprivation.

Many NWICA residents have to walk or rely on public transport if they want to travel across or beyond their area and this can sometimes severely limit them. Journeys by public transport often have to be planned in advance and can be very inflexible. Evening/night time services are often poor. Some of the most difficult journeys are to rural areas, including much of the Peak District/Derbyshire, although there are in fact good public transport links with NWICA to some parts of the most beautiful and wildlife-rich areas of countryside around Sheffield.

RESOURCES AVAILABLE TO ASSIST ENVIRONMENTAL PROJECTS

The biggest problem in developing a community environmental project is that of getting enough members of the community involved. Advice and support can be plentifully available and there are numerous sources of funding. Good relationships can be established with Council Departments and there are several national, regional and local organisations who are available to assist a new or existing environmental voluntary group.

A group can be formed by just a few people or by many. It is simple to put together a constitution for the group (including aims, the creation of executive posts, rules for voting and meetings, financial accountability etc). As a non-profit making organisation, it is possible to open a bank account. A bank account and a constitution are the main requirements for setting about raising funds and gathering resources.

In order to carry out practical work, it is imperative to get an insurance policy in order to cover against any serious injuries suffered by members or damage caused by group activities to third parties. This is easily and cheaply obtainable through the British Trust for Conservation Volunteers. Groups have to become members of BTCV to get insurance. BTCV also provide a start-up grant of £50 (and can provide a 'model constitution) and offer advice and training, including First Aid with certification.

A group which is constituted, set up with a bank account, insured, first aiders appointed and with agreed aims can start work and raising funds. It is not difficult and can be done by any group of people. The Ponderosa Environmental Group is just one example of an independent group run in this way. There are many community groups, such as tenants associations, who could easily add practical environmental or gardening work to their repertoire.

In fact, it can be even easier than this because specialist organisations exist to provide much of this framework for groups. The most obvious example within NWICA is Sheffield Wildlife Trust. They can act as an umbrella for small groups and individuals who may not wish to be formally organised, but come together with SWT to carry out improvements to their local area or site of activity. SWT can help obtain grants, provide insurance cover for all volunteers engaged in a days task; give advice on practical work; provide training and education; and negotiate with the Council and businesses on behalf of the group.

Within NWICA, SWT have already successfully helped local people at **Blake Street** to adopt a piece of waste ground; developed **Daniel Hill Peace Garden**; assisted **St Bartholomew's Church** to create a garden, and are currently helping the Ponderosa Environmental Group work up bigger plans for the Ponderosa. SWT have recently formalised their role in NWICA and are now managing and co-ordinating open space projects with funding from the Single Regeneration Budget (including SRB generated by matching funding provided by volunteer time/work), European URBAN programme and other small scale sources of funding.

The **NWICA Environmental Topic Group** previously (when led by the Planning Department) ran a small grants scheme (1995-6) which

successfully helped Daniel Hill Peace Gardens, St Bartholomew's Church, Netherthorpe School and the Ponderosa. Unfortunately after 1996 the Planning Department were not able to continue working in partnership with local people, preferring a 'consult and decide' relationship which alienated members of the community who preferred a more active role as partners in projects. SWT replaced the Planning Department with full community backing and are now working in partnership with the community. There will soon be a re-launched small grants scheme specific to environmental projects in the area.

One of the most innovative features of the **Single Regeneration Budget** is that it formalises and rewards voluntary work. It generally gives grants to projects which have to match this money 50/50. A financial value has been accredited to voluntary work on a pro-rata basis. This figure has been set very generously and so groups can raise good sums of money by getting their volunteers out to do work. If a project is managed well then SRB money can provide tools, materials, plants etc whilst the volunteer time donated to the project matches this SRB grant. This is completely appropriate to small scale work and is a real gain for the community and its environment.

There are other organisations in Sheffield who can help community groups develop their projects:

BTCV (they have a Local Groups Advisor based in Sheffield): training (nature conservation and practical skills, advice, help with fund-raising, tools loan service, also their team of volunteers can be hired for bigger projects.

Sheffield Environmental Training: training (nature conservation, practical skills and horticulture), advice, help with fund-raising, surveying, design work, and even practical help from their team of students.

Sheffield Wildlife Action Partnership: training, advice, help with fund-raising. Based close to NWICA at Weston Park.

Sheffield City Council Ecology Unit: ecological surveying, specialist advice on nature conservation. Based close to NWICA at Weston Park.

Sheffield Organic Food Initiative: Locally based (c/o of 205/7 Crookes Valley Road) group offering in depth advice and expertise on all aspects of urban organic food production.

Heeley City Farm: Advice and training on plants and horticulture.

Sheffield Conservation Volunteers: advice, help with fund-raising, also their team of volunteers can be hired for bigger projects, provided there is a strong element of nature conservation included.

The University of Sheffield and Sheffield Hallam University both have Conservation Volunteers who can help with projects. The University of Sheffield has also been setting up a wider scheme whereby student volunteers can help all kinds of community projects. Both teams of Conservation Volunteers have worked on the Ponderosa in the recent past.

SCC Parks & Open Spaces Division and SCC Countryside Management Unit: their proper remit is either for land held by the Department (Parks) or for out-of-town conservation work (CMU) but both offer advice, tools loans and may offer practical help. Both Department have given considerable help to the Ponderosa Environmental Group. In recent years the Parks Division in particular has remodelled itself to develop projects in partnership with local people and community groups. The new Park Rangers are a major addition to their support services. Both Departments have a very positive attitude to working in partnership with the community and have many officers with great knowledge, dedication and skill.

There are many other organisations who could provide assistance and advice, including advice on horticulture, social and arts projects, youth and child-centred activities etc. A very useful Sheffield publication is called '**Caring For Your Environment**'. It is a directory of Council Departments, voluntary groups and professional organisations who are working on environmental projects of all kinds. It is produced by Roger Butterfield of Sheffield Wildlife Consultancy and is annually updated.

SOURCES OF FUNDING

Funding for environmental projects is very diverse, covering everything from funding surveys, studies, tools, plants, training etc) and changes all the time. Grants can be made by Council Departments for small projects (they have a Community Chest fund) and central government (usually through the Department of Environment) has funding for bigger projects. There is a huge range of grants available from business-sponsored schemes, usually awarded on a competitive basis. Any community group wishing to raise money for an environmental project should seek advice from organisations like SWT, BTCV or SWAP. The creation of NWICA has meant that a whole range of big and small scale funding is available through SRB, URBAN and other sources.

In conclusion, it is clear that there are really good resources available to active community groups for environmental projects. However the most important resource is local people. Without their involvement, projects are unlikely to be successful or sustainable. Bigger organisations such as SWT are able to help recruit and encourage local people to come forward and be

creatively involved but the real impetus has to come from local people themselves.

RECOMMENDATIONS FOR ENVIRONMENTAL TASKFORCE

The prospect of employment creation in the field of environmental action could provide an invaluable aid in revitalising the green infrastructure of NWICA. However, the specific remit and programmes which develop should be adapted both to the sites worked on and those engaged in doing the work. NWICA offers a complete range of opportunities, from virtual wilderness to intensely manicured private gardens, although it is deficient in provision of land for productive cultivation, which would have to be accessed outside the immediate area.

The taskforce would be most rewarding for its participants and the community if it could operate across all the categories explained in this study, requiring different strategies for each. A programme of works should also attempt to deliver seasonal variety, tasks suitable at different times of year. Where possible, contributors should be able to return to sites they have helped with, possibly as part of ongoing maintenance, to get the reward of seeing them develop over time. Optimal effectiveness would be derived from a taskforce which aimed to be co-ordinated with present maintenance regimes and sensitively complimentary to the contribution of the local community.

COUNCIL AND VOLUNTARY SECTOR RELATIONSHIPS AND ENVIRONMENTAL MAINTENANCE BY SHEFFIELD CITY COUNCIL

There have been numerous problems with the way environmental maintenance is carried out in NWICA. This is not a problem created by NWICA (or unique to it) but has probably been made worse by the large amount of new landscaping and refurbishment work which has exposed the limitations of the current system. The principal problem is that tasks are split between several Council Departments who do not adequately co-ordinate their work (eg Housing, Cleansing, Landscape Services . It also makes it difficult for residents to report problems and create solutions as there is not a 'one-stop' community liaison system.

Local people can make a major difference to the efficiency of environmental maintenance if they are allowed proper access to the relevant officers at all stages of planning, designing, creating and maintaining landscaping or plantings. The efficiency of this process is increased, the more active a role members of the community play in this, especially when through an organised community or voluntary group such as a tenants or residents association or even a specialist environmental group.

Sheffield City Council have already appreciated that there are problems and have already carried out a pilot project/study to address these issues;

Manor Environment Team (see later section on this). They have various initiatives to assess their own operations and how they work with other organisations such as the **Area Monitoring Programme** and the **Agenda For Change Project**.

ORGANISATIONAL ADAPTATION AND ASPIRATIONS

A crucial development has been the appointment, earlier this year, of a new **Chief Executive** for Sheffield City Council; **Bob Kerslake**. He has made an impressive start which has already given him a higher profile than most of his predecessors. Of particular credit is his inclination to get out of the Town Hall and travel (often by public transport) to meet local people and community groups. Bob Kerslake gave a very positive but realistic talk on 9/10/97 to a packed meeting of Sheffield Funding Forum about 'Sheffield City Council and its Relationship with the Voluntary Sector'. He was well received and it does seem that a more positive climate of co-operation and co-ordination is being built. It is highly significant that this positive initiative is coming from a non-political direction rather than from a politician or political party.

Bob Kerslake gave an interview to **Sheffield Voluntary Action News** (Oct-Nov 1997, No 46) about his vision for the city, the council, and partnerships with the wider community. He gave a clear statement of intent and the following are selected extracts from the interview:

"If I was to sum up what we are trying to do, it's to reform the council to make it more of a corporate organisation - forward looking, focused on services and quality and with closer links with the community. I think what I want to create is what I call 'active community partnership' which really genuinely sees partnership as the means by which change is best achieved. The tendency has been in local authority for that process to be limited to the margins."

"The aim is to increase confidence and understanding of working with the community in its widest sense - voluntary sector, business, otherwise - and be sufficiently clear minded about the value of this so that it becomes something we work at all the time."

"It is a fundamental change but it's vitally important that local government and local councils are seen to be working with people and doing things with people rather than to people."

"What I have experienced in my time is that the voluntary sector brings strength in terms of flexibility, in terms of closeness to communities and in terms of innovation and new ideas that often mean they can achieve more than we can in some services."

"We should look at areas on their merits, look at the options in an open way and, I think most crucially, be prepared to trust the voluntary sector in terms of what it can achieve."

Members of PEG, and many other people active in the voluntary sector, would be in complete agreement with Bob Kerslake's stated views. They do represent a more fully-formed break with the past although some sections of Sheffield City Council had already made advances. It is also worth noting statements made by another 'new broom'; the **Prime Minister, Tony Blair** (Guardian 3/11/97):

"The key to modernising local government is for councils to change the way they govern and organise themselves. Councillors must remember they cannot, and must not, do everything themselves: there can be no monopoly of service delivery by councils; the 1970s will not be revisited. Delivering quality services means that councils must forge partnerships with communities, agencies and the private sector. It is their job to make sure that the people they serve receive the best quality services."