



KENSAL GREEN GAS WORKS IS THE LAST LARGE SITE AVAILABLE FOR DEVELOPMENT IN NORTH KENSINGTON. IT PRESENTS AN EXCITING OPPORTUNITY FOR FAR-SIGHTED REGENERATION THAT DEMONSTRATES SUSTAINABLE DEVELOPMENT AS AN INTEGRATED PART OF THE LOCAL ECONOMY, ENVIRONMENT AND COMMUNITY.

NORTH KENSINGTON ENVIRONMENT FORUM HAS PREPARED THIS DOCUMENT TO DEMONSTRATE THE POTENTIAL FOR PURSUING SUSTAINABLE DEVELOPMENT PRINCIPLES IN AN URBAN CONTEXT.

AS WE APPROACH THE END OF THE 20TH CENTURY THERE IS AN URGENT NEED FOR INNOVATIVE SOLUTIONS TO CREATE THE FRAMEWORK FOR SUSTAINABLE URBAN LIVING.

WE BELIEVE THIS WASTELAND SITE COULD BE TRANSFORMED INTO AN EXEMPLARY PROJECT TO SHOW HOW SUSTAINABLE LIVING IS AN ESSENTIAL AND ENRICHING PART OF THE FUTURE OF LIVING IN CITIES.

kensal green gas works

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM



Sustainable development is an umbrella term for a range of initiatives that encourage people to become involved in shaping their environment. It addresses quality of life issues as well as those directly affecting the environment. Architecture, planning and participatory democracy on a local level are all important aspects of sustainable development.

At a larger scale, sustainable development is defined as... development which meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable development aims to reduce the environmental impact of development and economic activity by minimising consumption of energy, water and resources. The challenge of sustainable development is to find systems that minimise or eliminate waste and that generate their own energy, water and other resources where possible.

Kensal Green Gas Works is an exciting opportunity for sustainable development to be demonstrated and practised in the Royal Borough of Kensington and Chelsea.

The site is unusual being bordered by natural and industrial habitats. It is extremely well suited to a progressive mixed use development combining housing, business and leisure facilities for use by the local community. The restricted vehicle access which could present a difficult obstacle to another development is a natural bonus to the type of development proposed here.

In conceiving these ideas NKEF have adopted the following criteria:

- propose an economically viable plan to provide an exciting commercial opportunity
- provide employment and training opportunities for local people.
- provide new housing and preserve the canal basin for residential boaters
- provide new public open space and leisure facilities
- preserve the existing wildlife and local ecology
- conserve existing resources: materials and energy
- provide facilities to encourage recycling of waste products, and to promote awareness of environmental practice.
- involve the local community in decision-making processes
- adopt principles of green design practice in all new construction

site
housing
community

employment
transport
recycling

ecology
green design
integration

strategy

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM



The site is located in North Kensington, between the Grand Union Canal and the railway lines serving Paddington. It is currently owned by British Gas who also own and use the land to the west including the two gas holders that dominate the sky line in the locality. There is a small canal basin used by narrow boats to the east.

Access from Ladbrooke Grove is via Canal Way, which also serves the Sainsburys supermarket. Traffic congestion is very bad in this area, and is compounded by shoppers visiting the supermarket in private cars.

new public building
The gas holders are a valued local landmark. They could be adapted to a new public function in the future: e.g. an arts centre, cinema or theatre.

views
Exceptional views to the north of the canal and Kensal Green cemetery.

ecology
The ecological value of the site should be retained and enhanced where possible e.g. existing scrubland retained as a public nature area.

canal
A 200 metre site boundary onto the Grand Union Canal- a natural amenity with links to pedestrian and cycle routes along tow path.

canalside features
These include the new canalside activity centre which provides ecology and watersports training combined with residential units.



site area
Large land area available for integrated development. Potential for phased development when additional land becomes available.

topography
The Gas Works and the cemetery are situated at the highest point in the borough. This unique position demands thoughtful development.

residential boaters
The boaters living in the Canal Basin No. 2 are an established residential community.

visitors
The site already attracts a large number of visitors who come to use the supermarket. Extensive car parking facilities are provided.

transport
A number of bus routes serve the site. Regular heavy traffic congestion on Ladbrooke Grove.

site

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

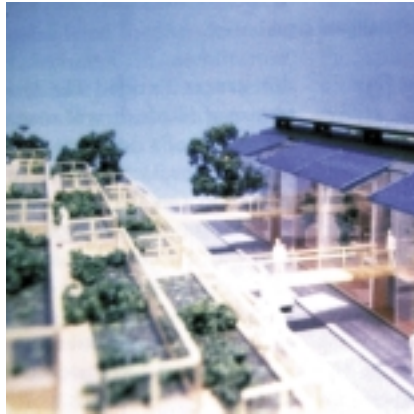
NORTH KENSINGTON ENVIRONMENT FORUM



There is a need for good affordable housing in the Borough.

Housing should be designed to be sustainable eg. in the materials used and the incorporation of passive heating systems.

NKEF proposes a combination of new-build residential units for rent or purchase, a self-build housing project and retention of the canal basin for affordable housing on narrowboats.



self-build

Self-build projects make full use of peoples natural energy and enthusiasm to have some control over the environment they live in. Through building their own homes individuals can learn practical, administrative and financial skills. Self-built homes can readily incorporate sustainable practice.

high-density housing

Well-planned high-density development in urban areas provides a concentration of activities for a vibrant community and leaves more of the surrounding land free for public open space and landscape development.

the canal basin

The canal basin is an important feature of the site and should be retained in any future development. It supports a lively community of liveaboard boaters. Development of the basin will provide 20 secure moorings for residential boats and temporary spaces for cruising boats. Access to new facilities will be available to other canal users so that the basin continues to be an integral part of the wider canal community.

housing

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

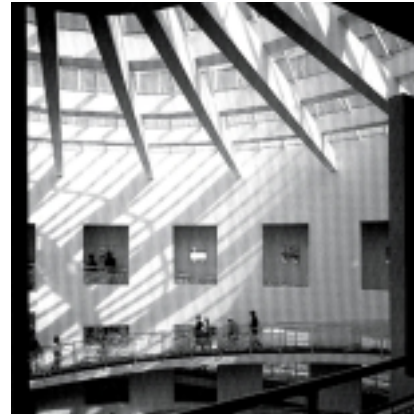
NORTH KENSINGTON ENVIRONMENT FORUM



The Borough has the least open public space as a proportion of total land area compared with other inner London boroughs.

The site provides a great opportunity to enhance leisure facilities in North Kensington in the attractive setting of the canal and its surroundings.

A development organised on sustainable principles would involve consultation with prospective residents and local people.



creation of new public open space

The site should become a resource for the whole community. It should be a greened site with trees and planting used to define routes, provide shading and reduce carbon dioxide levels. A safe play area should be provided away from traffic. A nature site /wildlife area would be a place to enjoy the wildlife and natural surroundings.

consultation with local people

A democratic design process allows the people who will be users of a building, or those who will be affected by a development, to take part in the process of design and decision-making. Consultants and designers can assist in this process rather than dictating solutions. A self-build construction project can build a community with shared aims and experiences.

new community facilities

An arts and leisure centre would provide a focus for the new community that would be established as part of the development. The gas holders are an important part of the local landscape and it may be possible to convert them into usable buildings in the future rather than demolish them. New workshop and small business units will provide facilities for residents and local people.

community

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM



The Unitary Development Plan (UDP) identifies the site as suitable for business and general industrial use.

Part of the site should be used for employment creation in an area with high unemployment locally and a lack of large development sites.

The development should prioritise sustainable solutions for creating jobs and training: encouraging local employment enhances a sense of community.



sustainable employment

There are diverse employment opportunities in 'green' activities such as recycling, repair and salvage. A self-build project for young unemployed people provides new skills and increases job prospects. It helps to create pride and commitment to the local community.

plant nursery /horticultural therapy

Polytunnels or greenhouses could be constructed on site. There are already successful and profitable examples of urban horticultural projects e.g. Hilltops Nursery, Greenwich. The project would create jobs, provide training and facilities for the disabled and those with learning difficulties.

units for crafts and light industries

Small business units of varying sizes would provide workspace for people working in the media and cultural industries. This would improve the economic vitality of the area. Siting workspaces in and around residential accommodation will create a lively community.

employment

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM



A mixed use development with homes and workplaces in close proximity is a sustainable proposal for the site, it reduces the need to travel.

Emphasis should be placed on encouraging the use of public transport and making travel by foot or cycle enjoyable and safe.

A fully pedestrianised, car-free site would be a progressive choice for the people of the Borough.



travel between home and work

Daily commuting by car consumes large amounts of energy as well as increasing traffic congestion and pollution levels. If the home and work place are closer together many of these problems can be avoided. A recent award-winning design for Canmore Housing Association in Edinburgh is a car-free housing development.

sustainable transport

The least energy intensive mode of travel, and least harmful to the environment, is by bicycle or on foot. Pedestrian and cycle access to the site can be implemented cheaply and effectively via the canal towpath and Ladbroke Grove. Pedestrian routes from nearby stations could be developed as green walkways. Improvements in pedestrian crossings, cycle lanes and traffic calming measures should be developed.

access

The locality is well served by buses. Access maybe further improved by extending bus routes deeper into the site. Local roads are congested which reduces the efficiency of public transport. Any development that increases local traffic, especially cars, should be discouraged. The railway and canal could also be developed to increase access to and from the site for people and/or materials for recycling.

transport

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM



A number of recycling initiatives should be provided on the site: for instance green waste and timber recycling.

Systems should be implemented for reducing domestic waste on the site such as reducing water consumption by recycling grey water.

The western end of the site is an ideal location for the expansion of these recycling facilities in the future.



recycling opportunities

Current disposal practice for white goods and furniture is wasteful. An opportunity exists for a recycling centre that takes in unwanted items from local residents and businesses. Items in good and working condition would be stored for sale at low cost. Repair and breaking up for recycling may be appropriate for goods in a poor state. Jobs would be created with this initiative.



timber station

London is an urban forest which produces large quantities of timber from street trees when they are felled or pollarded. Timber from the Borough could be collected to produce charcoal, wood chip for sale as mulch and timber for use in parks and gardens. Locally produced charcoal is more sustainable than that produced overseas from tropical timber.



green waste collection and treatment

Local authorities have been set ambitious recycling targets by European legislation. A composting centre which takes green waste from parks and gardens to create garden compost is an ideal sustainable solution for part of the site. Run as a commercial enterprise it would create jobs. A green waste facility within the Borough would reduce transport and landfill costs.

recycling

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM



The Unitary Development Plan has designated 6 acres of the gas works as a Site of Nature Conservation Importance (SNCI): the Borough's only example of scrubland.

The ecological value of the site is enhanced by the proximity of diverse habitats i.e. Kensal Green Cemetery and the canal.

The site could be a demonstration project for effective environmental practice and research in nature conservation, sustainable decontamination and greening the city.



permaculture

There should be a range of types of garden and plant cultivation on the site, from private gardens to the greening of buildings. There may be opportunities to grow food produce or to use large scale planting as a natural acoustic barrier. Local carbon dioxide and particulate levels are reduced around areas of urban planting.



wildlife area

The scrubland site supports the blue fleabane, a London rarity, and a number of butterflies, including the Essex skipper, common blue and small copper. A wildlife area would be a valuable resource for local schools and youth groups and would provide a study area for the new Ecology Centre at Canalside Activity Centre.



sustainable decontamination

The gas works manufactured town gas and the land is likely to be contaminated. Contaminates associated with gas works are tars, phenols, ammonia compounds and cyanides. There may be structures such as tar tanks and pipework which need to be removed to make the site safe. Sustainable methods of decontamination like bioremediation and phytoremediation are preferable to excavation and subsequent landfill.

ecology

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM



The development should demonstrate progressive strategies for sustainable building design.

Designers have a responsibility to design for a sustainable future, and to take all available steps to conserve energy resources.

An architectural competition for the site has the potential to attract international publicity and to generate a high quality of design ideas.



materials

Materials for building construction should be selected to take account of the energy embodied in their production as well as factors such as their insulating value and the energy costs involved in transporting them to the site. Solar technologies are making giant strides and it is now possible for urban houses to supply their own energy needs by a combination of solar water heating and photovoltaic systems.

the form of green buildings

Environmentally appropriate buildings can take unexpected forms as the innovative work of architect Ken Yeang in Malaysia on the 'bioclimatic skyscraper' shows. A green 'skyscraper' with planted skycourts on this site, could provide desirable accommodation while taking advantage of natural ventilation and solar gain to reduce energy costs. The smaller footprint leaves more land for nature.

energy efficient building strategies

Energy efficient buildings are highly insulated to save on energy costs. They are orientated to maximise the benefits of solar energy in sun-spaces for example. They work with the site and natural conditions, not against them. They are designed to be responsive to climatic change.

green design

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM



The new development should create a framework for sustainable urban living.

It should have a forward looking, long-term perspective especially in relation to energy consumption whilst providing users with real short-term benefits.



urban village

A mixed use development will combine living and working accommodation on the same site. By reducing the distance between home and workplace communities are reinforced. Facilities within the development will be shared with those outside. A diverse mix of sustainable functions, people and urban environments will contribute towards a lively, safe and healthy living environment.



integrated systems

The city is made up of a series of interacting systems for living, working and playing. The new development should be connected to these systems and to the larger aim of creating a sustainable city: Sustainable systems for sharing resources should be built into the new development eg a mixed use scheme could include systems for the exchange of surplus solar produced energy between business and domestic users.



metabolism of cities

The unique location of the site, its limited access to motor vehicles and its proximity to large areas of natural landscape demand a sensitive development with a low environmental impact. Projects that have a validity for the future must take account of the quantities and life cycles of materials and energy, the effects of building on urban space and the environment as a whole, and the conservation of the landscape.

integration

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM



North Kensington Environment Forum (NKEF) was set-up for North Kensington residents and organisations with help from City Challenge. NKEF members include residents and representatives of local community groups. Its objectives are to promote the environment in North Kensington using sustainable development as its guiding principle. Its agenda includes promoting energy efficiency, collection and composting of green waste, traffic reduction, and appropriate development of Kensal Green Gas Works. At its first meeting the group decided that the most important local issue is the impending development of the Gas Works.

NKEF c/o 36 Cambridge Gardens, London W10 5UD

This document has been prepared with the assistance of the following NKEF members:

Peter Allam	Chairman Kensington & Chelsea and Westminster London Wildlife Trust
Pamela Charlick	Architect. Local resident.
Jessica Currie	Environmental Projects Officer RBK&C.
Will Dorman	Chartered Town Planner.
Hugh Ellacott	Environmental Consultant. Member of Kensal Rise Association of Boaters.
Herbert Girardet	Chairman NKEF. Urban ecologist. Writer. Filmmaker. Local resident.
Jennifer Harriott	Volunteer Tree Warden and Conservationist. Bee Keeper. Local resident.
Nicolas Holliman	Environmentalist. Local resident.
Helen Kay	
Natasha Nicholson	Architect. Local resident.
Pat Pattinson	Designer(retired). Local resident.
Gayle Verdi	Teacher.Volunteer Tree Warden. Local resident.
Stuart Turner	Ecological Services RBK&C

Image credits:

housing 1.terraced housing at Graz, Austria-architect:Elfried Huth 2.Hopetown project arch:Bill Dunster (AJ April '97)
3.Kensal Green Canal Basin No 2 photo:H. Ellacott
community 1.photo:H.Ellacott 3.The High Museum Of Art, Atlanta, Georgia arch:R.Meier photo:Ezra Stoller
employment 1.Self-build project in Homerton photo: David Hoffman Photo Library 2.Hilltops Nursery, Greenwich
photo:H.Ellacott 3.Slade School of Art arch:Fraser Brown MacKenna photo.Cliff Haynes
transport 1.Canmore Housing Association, Edinburgh-Hackland and Dore 2.photo:H.Ellacott
recycling 1.Cremorne Wharf Recycling Centre photo:H.Ellacott 2.Croydon Coucil Charcoal Project
photo:H.Ellacott 3. Croydon Council Green Waste Recycling Project photo:H.Ellacott
ecology 2.Camley Street, London photo H.Ellacott
green design 1.Solar House, Oxford arch:Susan Roaf 2. Nara Tower, Tokyo arch:Ken Yeang 3. Ecole Primaire de
Tourrai, Belgium arch:Jean Willart
integration 1.mobile workshop arch: Renzo Piano 3.photo:H.Ellacott.

Designed and produced by charlick + nicholson

September 1997

information

SUSTAINABLE DEVELOPMENT PROPOSAL FOR KENSAL GREEN GAS WORKS

NORTH KENSINGTON ENVIRONMENT FORUM

