

# Green Procurement Practices in the London Borough of Croydon

An Interactive Qualifying Report

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## **Abstract**

The goal of this project was to assist the Croydon Council in their green procurement efforts while evaluating staff knowledge, attitudes, and practices and providing tools for all departments and personnel to purchase environmentally sustainable products. Information was gathered through interviews and email correspondence, surveys with staff members, and documents used by the Croydon Council and other organizations. Recommendations were made to improve the borough's procurement policies and practices. These included recommendations for the writing and publicizing the policy, for the procurement process, and for employee training and tools.

## **Authorship**

This report was developed through a collaborative effort by all members of the Croydon team: Timothy Driscoll, Amelia Halliday, Jessica Rastad, and Ryan Stock. All sections were developed as a team with equal contribution by each member.

## Executive Summary

Climate change is a global issue that has received escalating attention throughout the last half century. Institutions are increasingly encouraged to participate in the sustainability movement to preserve the environment for future generations. Several plans of action have been taken by governments to foster sustainable development in organizations and businesses. Green procurement, the purchasing of environmentally sustainable products, is one of these strategies. In the United Kingdom, central and local governments can have a significant influence on the market as a result of their massive purchasing power. Some of this influence is being used to encourage innovation in the green market. The London Borough of Croydon participates in sustainability efforts through implementing green procurement policies.

Several measures could increase the success of the Croydon Council's green procurement. For this project, the team conducted research of organizations recognized for their green procurement efforts. These organizations serve as examples for the council to follow. Comparing and contrasting the council to these organizations indicated strategies that can be used to excel in green procurement. Reviewing the council's current policy also indicated areas for improvement. Collection of information on staff perceptions of the council's Environmental Procurement Policy (EPP) was administered by the team. Finally, the team compiled information that identified environmentally sustainable products and suppliers.

The goal of this project was to aid the Croydon Council in their green procurement efforts while evaluating the knowledge, attitudes, and practice of procurement staff and fostering greater efforts of environmentally sustainable purchasing by all departments and employees. The team accomplished this through four objectives: (1) characterizing the state of the art in green procurement practices in London, (2) evaluating current green procurement policies in the Croydon Council, (3) determining the opinions of staff about current and future green procurement policies in the council, and (4) identifying innovative green products and suppliers that Croydon might adopt. These objectives were fulfilled by conducting a series of interviews and surveys, an assessment of the Croydon Council's green procurement policies and their progression, and compiling information on green products and services into a

guidebook. From results and analysis, the team was able to make several suggestions to improve the borough's procurement policies and practices.

After conducting interviews and corresponding via email with leading organizations of green procurement, the London Borough of Hackney, London Borough of Greenwich, London Fire Brigade, Transport for London, the Metropolitan Police Service, and Mapeley Estates, the team discovered many aspects of green procurement that could be modeled and implemented within the council. One of the largest contributors to the London Borough of Hackney's success in green procurement was its procurement practices, tools, and policies. The London Borough of Greenwich's staff and specialized teams, communication, and strategies are major components of the organization's success. The procurement process of London Fire Brigade is the key factor that led to the organization's environmental achievements. Transport for London's strategies to engage its suppliers and measure its environmental Key Performance Indicators (KPIs) were the main contributors to the organization's sustainable accomplishments. From these findings, the team recommends that the Croydon Council:

- **Encourage commitment from top of the organization down through every department.** Senior management being committed to the council's Environmental Procurement Policy ensures staff members are applying the policy. Environmental procurement objectives could be included in all staff's Performance, Development, and Competency Schemes (PDCSs) to result in greater green procurement efforts by the entire council.
- **Implement measurable objectives that can be monitored.** Key Performance Indicators ought to be set, constantly updated, and monitored so the council can track its green procurement. Tools that assist in tracking these KPIs can also be implemented.
- **Establish a champion within the central procurement team.** Having a central procurement team with green procurement "champions" helps to ensure that procurement policies are carried out in each of the council's contract. The centralized procurement team could serve as a resource that employees can contact regarding any inquiries of the council's EPP.

- **Install a quality data collection system to track procurement spending.** The council could utilize the Environmental Management System tool to calculate the impact that its purchases have on the environment.
- **Assess the need for products and utilize whole life costs.** The council ought to evaluate if there is an actual need for a purchase and review product supply chains to evaluate whole life costs.
- **Utilize supplier enthusiasm.** With the UK being in a recession, suppliers seek business from governments due to their financial stability. The supplier's need for business and the council's need to meet environmental objectives can be combined to foster innovation in green products.

The team evaluated the council's green procurement policies and practices as part of the council's application to the Mayor of London's Green Procurement Code. The team scored the council on several areas of sustainable procurement. Scores generated by the team identified key obstacles the council is facing in its procurement strategies. These included the need to include sustainable procurement in staff objectives, spread awareness of the council's green procurement achievements, have external sources critique their EPP, emphasize sustainability criteria in contracts, and purchase products in bulk.

From these findings, the team recommends that the Croydon Council:

- **Have the council's green procurement progress reviewed by additional experts in the field.** Additional third party organizations can be used to regularly review, audit, and provide suggestions to the council to improve its green procurement progress.
- **Publicize achievements and progress through additional sources.** The council could further promote its green procurement through events and print sources.
- **Develop a communications plan that outlines the council's green procurement process.** The council ought to publicize its procurement strategy and goals to suppliers. A communications system can be created to convey the council's procurement process internally and externally to connect to suppliers.

The team administered a survey to the council's key procurement staff that evaluated knowledge, attitude, and practice of the EPP. Statistics were generated that showed what staff

identified as issues inhibiting employees from using the EPP. A lack of understanding of the policy, lack of enforcement of the policy, and difficulty implementing the policy were seen by staff to be issues that limit the council's ability to deliver on the EPP.

From these findings, the team recommends that the Croydon Council:

- **Incorporate additional staff training through organizations specializing in green procurement.** The council could have staff attend additional training programs by expert organizations in environmentally sustainable procurement. Sessions would provide further support for procurement staff.
- **Implement tools to aid staff in the procurement process.** Online learning modules, E-procurement, life cycle analysis, informal workshops, and a procurement guide ought to be used by the staff.
- **Review case studies and documents of organizations identified as leaders in green procurement.** Reports from other organizations that are on the forefront of green procurement can be reviewed. From these, the council can see what parallels exist between other organizations green procurement policies and the Croydon Council's EPP.
- **Utilize high profile contracts to implement environmental criteria and meet sustainability goals.** The council could seek contracts with high spend, high influence, and high opportunity to implement environmental criteria. Suppliers ought to be required to regularly report sustainability activities and could have their progress reviewed. Consequences can be written in contracts to be enforced if suppliers do not meet pre-arranged criteria.
- **Modify the vendor selection process.** Sustainable Development Impact Assessment and other risk assessment tools ought to be used in the selection of vendors and products. This would identify environmental risks of major purchases.
- **Develop a Supplier Relation Management Program.** The council can implement a program that provides personal guidance to suppliers and enables a more personal relationship between the organization and supplier. This will provide direct contacts at all levels of the organization for the supplier and council.

- **Create a document of environmental products to aid procurement staff.** A green procurement guide was created by the team to be used by procurement staff. The catalogue outlines good purchasing practices, things to avoid, and vendors to use for several categories of products. This in-depth green product guide to be utilized alongside the EPP and was used to complete the fourth objective, to identify innovative green products and suppliers.

There are many initiatives that the Croydon Council can take to improve their green procurement efforts. Through conducting a significant amount of background research, outlining a project procedure, completing a list of objectives, and evaluating the results of these objectives, that the team was able to generate the aforementioned recommendations. These suggestions will aid the council in their efforts to become more a leader in green procureme

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## I. Introduction

Although there is no agreed upon definition of sustainable development, governments have been increasingly concerned about the issue. In 1987 the United Nation's World Commission on Environment and Development (the Brundtland Commission) published "Our Common Future", which stated that "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987). Sustainable development refers to economic development that minimizes adverse environmental and social impacts. One step that some governments, including the United Kingdom, are implementing to promote more sustainable development is 'green procurement.' Green procurement is the purchasing of products that meet certain environmental criteria including safer production, usage, and disposal. Since central and local governments in the UK have enormous purchasing power, they can significantly influence markets, including markets for green products. The London Borough of Croydon is currently implementing various green procurement strategies and programs as part of this wider national effort.

Ideally, governments and organizations should purchase environmentally friendly products and services whenever possible. Costs, lack of awareness, lack of available products, and limited access to vendors, can prevent organizations from achieving their green procurement goals, however. To overcome these obstacles, organizations must establish and enforce guidelines and incentives to promote staff awareness and encourage greater efforts by all departments and personnel to purchase environmentally sustainable products. The Croydon Council has established a comprehensive Environmental Procurement Policy, and is striving to encourage greater awareness and use of green purchasing practices throughout its departments and offices. As part of this effort, Croydon participates in the Mayor of London's Green Procurement Code. In 2007, Croydon attained a bronze status under this scheme, and in 2008 it attained a silver status. The scheme serves not only as a measure of progress in achieving green procurement goals, but also as a motivator for council staff.

The goal of this project was to evaluate Croydon's current green procurement practices and provide recommendations for improved strategies. The project had four main objectives;

(1) characterize the state of the art in green procurement practices in London, (2) evaluate current green procurement policies in the Croydon Council, (3) determine the opinions of staff about current and future green procurement policies in the council, and (4) identify innovative green products and suppliers that Croydon might adopt. To achieve these objectives, the team contacted leading organizations in the green procurement movement, including the London Borough of Greenwich, the London Fire Brigade, Transport for London, the London Borough of Hackney, Metropolitan Police Service, and Mapeley Estates; gathered data through email correspondence with the departments of the council; surveyed staff in the council about opinions on green procurement policies; and reviewed other organization's documents and green procurement buying guides. The following report outlines the importance of green procurement and how it can be implemented through clear, well-defined policies; proper training; and tools and strategies that are available to all staff. It contains a detailed study of the green procurement processes of the Croydon Council. The focus is on local governments, specifically the Croydon Council, although many of the strategies can be applied in other organizations, including businesses in the private sector.

## II. Background

### 2.1 Sustainability and Green Procurement

#### 2.1.1 Need for Sustainability

Sustainability has received increasing attention around the world. According to the Department for Environment, Food and Rural Affairs (DEFRA), sustainable procurement is “a process whereby organizations meet their needs for goods, services, works, and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimizing damage to the environment” (DEFRA, 2006).

Mounting manmade environmental problems, such as air pollution (Ward, 2006), water shortages and pollution (Tietenberg, 2007), food shortages (Tietenberg, 2007), limited availability of land for agriculture and settlement (Tietenberg, 2007), deforestation (Tietenberg, 2007), and disposal and landfill issues (Smith, N.D.), are a key driving force in the sustainability movements. Sustainable practices have the ability to reduce pollution and waste, and to slow the depletion of finite resources by encouraging the use of recycled products and renewable energy. Many governments and organizations are promoting sustainable procurement in an effort to heighten environmental sustainability.

One of the largest driving forces in the sustainability movement is the growing concern about global warming, which occurs when carbon dioxide and other green house gasses are emitted into the atmosphere. Climate change due to anthropogenic emissions is expected to result in more frequent and more intense adverse events, such as hurricanes, flooding, and many other natural disasters, as well as other substantial long-term social, political, and economic impacts (Gore, 2006). Estimates show that the longer governments and organizations wait to take action, the more difficult it will be to prevent catastrophes related to climate change, and the more it will cost (Stern, 2007). When assessing green procurement costs, governments should compare the cost of control (the cost of reducing or avoiding damage) to the cost of the actual damage (Epstein, 2008). Often, it is less expensive to avoid

environmental damage than it is to deal with existing damage. The Kyoto Protocol is an international agreement that establishes targets for greenhouse gas reductions and has been ratified by 132 countries, including the United Kingdom (Gore, 2006). The UK has set even more stringent goals through legislation such as the Climate Change Act. In order to achieve these goals; the UK government is encouraging regional and local governments to explore ways to reduce their carbon footprints. Accordingly, the Croydon's Local Area Agreement goal is to reduce carbon emissions by 9.5% from 2009 levels by the year 2011 (Roberts and Claydon, 2008). This goal is a major incentive for the promotion of sustainable procurement practices within the borough.

### **2.1.2 History of the Sustainability Movement**

Environmentalism and sustainability are not new concepts. The conservation movement developed in the late 1800's, after the Industrial Revolution resulted in excessive pollution, decimation of wildlife, and horrendous sanitation issues (Dalton, 1994). The main foci of the early environmental movement were the conservation of birds and the preservation of naturally and historically significant sites (Dalton, 1994).

Post WWII, Britons sought to conserve what little of the countryside was left (Dalton, 1994). The 1960's saw a revival of environmentalism as industrialized nations became increasingly concerned about issues such as quality of life, acid rain, the risks of nuclear power, toxic waste, and the loss of natural resources (Dalton, 1994). Also in the 1960's, the student movement began and young adults started to rebel against what they viewed as the culture of materialism (Dalton, 1994). In 1972, a group of scientists and economists from Europe, called the Club of Rome, published "Limits to Growth", which stated that if economic development continued at its current rate, it would result in ecological disaster (Croydon Council, 2009b). In 2002, ten years after the UN conference on the Global Environment (the Rio Summit), the World Summit on Sustainable Development was held, which focused on sustainability (World Summit, 2003).

### **2.1.3 The Development and Movement of Green Procurement Policies**

Since the 1970's, economists and scientists have observed that the world had entered into an era of limits (Nordhaus, Stavins, & Weitzman, 1992) and unchecked consumption and abuse of natural resources would lead to economic disaster (Croydon Council, 2009b). Many organizations identified principles that they felt society must abide by in order to protect the environment for coming generations (Nordhaus et al., 1992). Members of the United Nations met in Stockholm at the United Nations Environment Programme On The Human Environment in 1972 and highlighted that "economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life" (United Nations Environment Programme [UNEP], 2010). The UN also felt that international environmental policies should address the possible economic consequences resulting from the application of environmental measures (UNEP, 2010).

In the 1980's, sustainability became a rallying cry vaguely defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987). Building on these previous definitions and conceptions, the United Kingdom's strategy for sustainable development, which was proposed in 1999 highlights four objectives; "social progress which recognizes the needs of everyone, effective protection of the environment, prudent use of natural resources, and maintenance of high and stable levels of economic growth and employment" (HM Government, 2005).

Programs and policies set forth by the UK have been developed to promote sustainability. Sustainable or green procurement has been one recent emphasis among the many activities of the sustainability movement. As stated previously, sustainable procurement is "a process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimizing damage to the environment" (DEFRA, 2006). The goal of green procurement proponents is for organizations to "integrate environmental criteria into all stages of their procurement process, thus encouraging the spread of environmental technologies and the development of environmentally sound

products, by seeking and choosing outcomes and solutions that have the least possible impact on the environment throughout their whole life cycle” (Bouwer et al., 2005). Both definitions are quite similar and are constantly being interchanged with one another. Each refer to buying environmentally friendly products, but sustainable procurement focuses also on the broader social and economical aspects of the procurement process, while green procurement emphasizes primarily the benefits to the environment.

## **2.2 Effects of Green Procurement on the Environment**

As stated in the 2009 London Green Procurement Report, a total of 113,807 tonnes of material was diverted from local landfills, 57% more than in 2008 (London Development Agency [LDA], 2008). Furthermore, 46,408 tonnes of CO<sub>2</sub> emissions and 58.7 tonnes of other pollutants were avoided and 62,214,107 m<sup>3</sup> of water was saved (LDA, 2008). In 2009, the London Borough of Croydon diverted approximately 26,279.6 tonnes of material from landfill, avoided 202.2 tonnes of CO<sub>2</sub>, averted 2,055.8 kg of other air pollutants from entering the atmosphere, and saved 2,284,192.1 litres of water (LDA, 2008). The Croydon Council has improved these figures from the previous year. These statistics show the effectiveness of green procurement practices. Many goods and services can have negative effects on the environment, and a guide of regulations has been developed to prevent these effects.

Green procurement has had affects on many areas other than climate change and pollution within the environment. Other effects include depleting fish population and increasing deforestation. Recent policies have helped to lessen these affects. The implementation of “catch shares,” which encourages fisherman to spread their fishing season out throughout the entire year, resulted in an increased fish population (Thomas, 2008). Also, the Prince of Wales implemented The Prince’s Rainforest Project. These policies increase sustainability and encourage green procurement (The Prince’s Rainforest Project, 2010).

## **2.3 The Effects of Green Procurement on Society**

There are many definitions of and approaches to green procurement that emphasize social benefits. Christopher McCrudden, a professor in the Human Rights Law Department of the University of Oxford (University of Michigan Law School, 2010), claims that there is a clear connection between “‘green’ procurement, ‘social’ procurement, and sustainable

development” (McCrudden, 2004). An accumulation of social justice movements, from the recycling movement to the Fair Trade Act, led to the establishment of environmental principles with social advantages. “Socio-economic benefits range from the creation of employment and training opportunities for the long-term unemployed and people with disabilities, to the elimination of child labour” (Improvement and Development Agency [I&DeA], 2007). Green procurement provides opportunities for employment in a regressing economy (Walker & Brammer, 2007). Regulation of green procurement practices results in the need for a group of employees, or a new department, working to ensure that employees adhere to procurement policies (I&DeA, 2007). The impacts of green procurement on the workplace have served as a catalyst for citizen and laborer involvement. This leads to improved work conditions, higher prioritization of the safety of workers, and the prevention of the unfair treatment of these individuals (I&DeA, 2007).

The Fairtrade Foundation was established to “promote ‘fairly traded’ food so that its growers receive a higher proportion of its selling price” (Croydon Council, 2010b). This is done through increased purchasing of locally grown products or products produced in impoverished areas. Locally grown food is more environmentally sustainable because it is located close to where it is sold (Croydon Council, 2010b). Fairtrade aids in alleviating the injustices that local business owners endure in the market (I&DeA, 2007). The World Federation Trade Organization (now known as WFTO, but previously IFAT) and Fairtrade Labeling Organization International (FLO) are groups that promote sustainable purchasing. The two groups act as the headquarters for all fair trade organizations in the world (Fair Trade Federation [FTF], 2010). Furthermore, each continent holds its own head fair-trade organization to oversee fair trade sales within the respective region (FTF, 2010). Fairtrade promotes better working and social conditions. Local communities are enhanced by the income that fair trade sales generate (FTF, 2010). The money earned from fairtrade can be utilized to build schools and other institutions (FTF, 2010).

Indirect benefits for businesses involved in green procurement include good public relations and lowered fines for environmental damages (Read, 2008). Green procurement policies are able to “serve as an effective introduction to green

procurement for companies, encourage and motivate stakeholders, send a clear corporate message, and influence the market“(Read, 2008).

## **2.4 Green Procurement in Europe**

The European Union (EU) and the International Standard Organisation (ISO) ensure manufacturers and organizations, who claim to be environmentally-friendly, meet legal environmental sustainability requirements in their products or their facilities (Plas & Erdmenger, 2000). The EU has developed an Eco-Management and Audit Scheme (EMAS) that serves as a tool to help organizations manage and monitor the environmental performance of their operations (Plas & Erdmenger, 2000). The ISO 14 001 Standard is similar to the EMAS (Plas & Erdmenger, 2000). Both tools use an auditor to certify that the organization is capable of reaching defined targets and is complying with environmental legislation in its operations and purchases (Plas & Erdmenger, 2000). EMAS certification can be achieved by meeting general environmental regulations (Plas & Erdmenger, 2000). Public authorities can aid small businesses in achieving this certification by providing advice and guidance regarding sustainable, environmental policies and practices (Plas & Erdmenger, 2000). For example the Euro 5 and Euro 6 vehicle standards regulate emission rates of several toxins, including carbon monoxide, nitrogen oxide, non-methane hydrocarbons, and total pollutants (European Union, 2007).

A wide range of approaches is being used to implement green procurement across Europe. Legislation is among one of the top strategies utilized. In addition to international and continental regulations, countries often have their own legal standards regarding green procurement. Certain countries excel in different aspects of green procurement. In Germany, Denmark, and Austria green purchasing is a legal requirement and environmental criteria are used in product selection (see Table 1). In Denmark, environmental concerns about a product are given as much consideration as other factors, such as price (Plas & Erdmenger, 2000).

Table 1: National Legal Differences in the Field of Green Purchasing (Plas & Erdmenger, 2000)

Aspects of national legislation in nine European countries	Greener purchasing is			The environmental criteria is		Prevailing criteria for tender evaluation			
	Legally required	Advised	Allowed	A selection criteria	Part of the technical specifications	Autonomy of municipality in choice	Env criteria have same weight as others	Functional need of the product	Economic efficiency of the product
Denmark	X			X			X		
Germany	X			X					X
The Netherlands		X		X					
France			X		X			X	
United Kingdom			X	X	X	X			
Sweden		X		X	X	X	X	X	X
Austria	X				X	X			
Finland			X	X		X			
Italy			X	X	X	X			

Denmark is a leader in green procurement among these countries. In Kolding, Denmark, environmental questionnaires served as one of many useful tools that ensure greener purchasing. These questionnaires help procurement officers make certain that the products they are purchasing are green (Plas & Erdmenger, 2000). The questionnaire is used as an assessment and the answers provided by the supplier are analyzed by the purchaser to identify green products (Plas & Erdmenger, 2000). In Kobenhavn, a coordinated process consisting of the following steps led to the successful implementation of green procurement; selecting areas of effort, defining concrete targets, involving staff, providing training, documenting approaches, monitoring results, observing barriers and conflicts, and utilizing experience gained for the future (Plas & Erdmenger, 2000). Kobenhavn’s methodology serves as a model for other countries looking to implement green procurement. Tools from these local governments can be seen in appendix B.

In the UK, green purchasing is encouraged by central and local governments. Environmental criteria can be implemented at various stages of the procurement process (Plas & Erdmenger, 2000). Councils decide on their own independent, technical criteria for new contracts or renewal of contracts with suppliers (Plas & Erdmenger, 2000).

## 2.5 Major Green Procurement Achievements in the United Kingdom and the Croydon Council

Central and local governments have implemented new strategies and technologies to enhance the sustainability initiative. Governments hope that these initiatives will gain public support and serve as models for other governments and councils.

In 2005, the United Kingdom created the Sustainable Procurement Task Force (SPTF) to help the UK become a leader in sustainable procurement within the European Union (Actionsustainability, 2010). One of the strategies used by the SPTF is the UK Government Sustainable Procurement Action Plan in 2007 for localized governments (Actionsustainability, 2010). The Action Plan makes six key recommendations; “lead by example, set clear priorities, raise the bar, build capacity, remove barriers, and capture opportunities” (Actionsustainability, 2010). The ultimate goal of this plan was to “move towards a sustainably built and managed central government estate that minimizes carbon emissions, waste and water consumption and increases energy efficiency (in line with Departmental sustainable operations targets)” (DEFRA, 2007). A strategy for local governments in response to the Sustainable Procurement Action Plan includes constructing green buildings, buying local produce and energy efficient products, involving the public sector, and increasing employment to handle these needs (I&DeA, 2007).

The central government’s sustainable procurement action plan’s goals have encouraged organizations and boroughs to take further steps in green procurement. London Remade, for example, publicized their “Environmental Policy”. This policy is a toolkit that organizations can use as a guide when developing their own policies (London Remade, 2004). Goals of these action plans have helped boroughs create guides to green procurement, which provide sustainability information on areas such as furniture, stationary, construction, energy, energy efficient products, timber, IT equipment and vehicles.

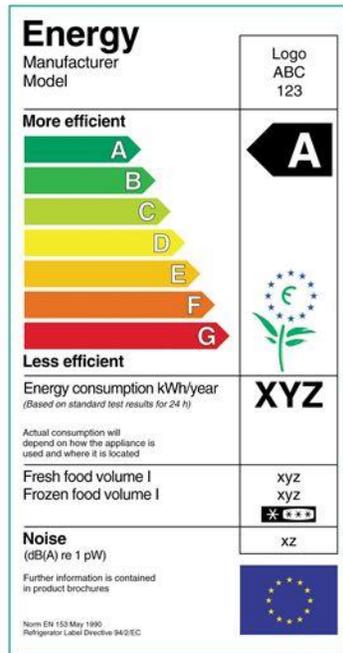
In the UK, the Environmental Impact Assessment, or “EIA,” regulates purchases for new building projects (I&DeA, 2007). One of its standards, Building Research Establishment Environmental Assessment Method (BREEAM), is used for an environmental evaluation of construction projects (I&DeA, 2007). Potential environmental impacts of new buildings are calculated by the contractor and made available to the public (I&DeA, 2007). EIA authority has the final say in giving developmental permission of new construction projects (I&DeA, 2007).

For example, public authority buildings larger than 1000m<sup>2</sup> will have Display Energy Certificates (DECs) that will display their energy consumption (London Development Agency [LDA], 2009). Purchasing environmentally friendly products, such as recycled products and energy efficient appliances, can lower the buildings overall energy consumption.

Many boroughs have begun adopting recycling in recent years partially because of the central governments increase of the landfill tax. Switching to recycling is proving to be a cheaper alternative than using landfills in some cases. Recycling agencies collect and recycle paper, mixed recyclables, garden waste, food waste, used cooking oil and furniture (LDA, 2008). Through the collection of these items, a total of 699.17 tonnes of waste was diverted from landfills, resulting in a total CO<sub>2</sub> emissions savings of 938.68 tonnes (LDA, 2008). The use of recycled products is also encouraged (Communities and Local Government, 2008).

The Croydon Council is taking steps towards greener purchasing. They have created an Environmental Procurement Policy (EPP), which assists in the procurement process. The EPP, available to council employees via the intranet, defines the proper purchasing habits within the council. The main goal of this guide is to use a value for money approach. This approach “involves considering ‘whole-life’ financial costs (e.g. with respect to energy savings, durability, reduced maintenance, and waste reduction), and reducing environmental (and other) risks” (Croydon Council, 2009a). One of the main areas of this policy is eco-labels. Eco-labels are used to show different environmental associations’ approval of products. Figures of several eco-labels can be seen in appendix C. Similarly, the council uses energy efficiency rating labels when purchasing appliances (See Figure 1).

Figure 1: Energy Efficiency Labels (Croydon Council, 2009a)



In 2007, the Council of Croydon, in cooperation with the Borough of Lewisham, began the South London Street Lighting PFI Project, which was initiated by the Private Finance Initiative (PFI). This Project will purchase and replace 90% of the light columns with more energy efficient ones in order to meet the European lighting design standard. In addition to replacing these light columns, illuminated signs, bollards, and beacons will also be replaced. This lighting initiative will be environmentally friendly and assist in the reduction of crime throughout the boroughs by providing better lighting in areas of the borough with higher crime rates (London Boroughs of Croydon and Lewisham, 2007). This initiative was encouraged by the central government’s sustainable procurement action plan.

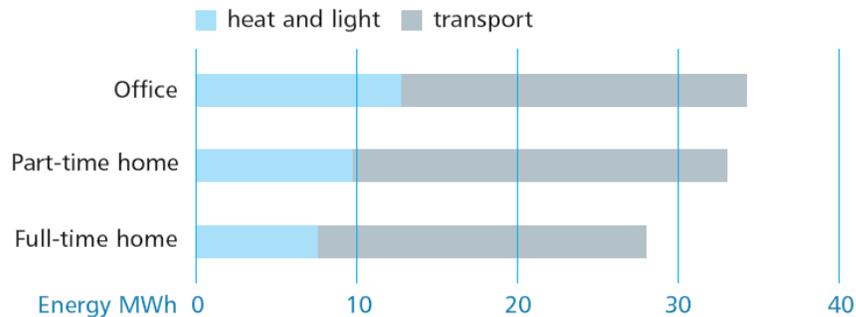
## 2.6 Other Green Procurement Initiatives

There are many green procurement initiatives being implemented by different organizations. Many citizens commute by automobile, which has higher carbon emission rates than alternatives such as trains and bicycles. As described in the Green Procurement Report – “A train journey between Manchester and London of 360 miles generates 0.04 tonnes of CO<sub>2</sub> compared with the same trip in a car with a small engine generating 0.11 tonnes of CO<sub>2</sub>” (LDA, 2008). The use of public transportation is encouraged in order to cut levels of pollution.

Employees can educate their staff about the alternative means of transportation and provide them with public transportation passes. In many cases employees can use these passes as a tax write off and they can be put into employee benefit packages (Transport Solutions, 2006).

With the continuing advancements in technology, teleworking and “E-Procurement” have been implemented in many organizations across the United Kingdom. Local governments use “E-Procurement”, an environmentally friendly purchasing technique, to eliminate paperwork and cut paper use and cost. Tasks that can be completed electronically include sending orders, receiving and processing invoices, and managing contracts (Communities and Local Government, 2008). Teleworking, or working from home and communicating electronically, eliminates many forms of carbon emission and cuts operating costs for commercial buildings (Alakeson, et al., 2004). This alternative is being used not only in the UK but all over the world, and in 2002, over two million Europeans were teleworking (Alakeson et al., 2004). As stated by the charitable organization “Forum for the Future,” teleworking will be able to environmentally benefit the U.K. and will assist in the lowering of car congestion and reduce the need for new road construction. It will provide for more efficiency and space in the office and will lower business’s overall energy consumption. (Alakeson et al., 2004). According to the department of Employment in Sheffield, home workers consumed half the energy as their office based co-workers during the same work hours (Alakeson et al., 2004). The energy levels used by home workers were as low as twenty percent of that used by office workers when commuting was eliminated and the office space was no longer needed (Alakeson et al., 2004). Though energy, heat, and other utilities will still need to be accounted for, their impacts are much less due to the size difference between homes and corporations (see figure 2) (Alakeson et al., 2004).

Figure 2: Energy Efficiency of Working at Home (Gray, Hodson, Gordon, 1993)



Source: Gray, Hodson and Gordon (1993)

## 2.7 Barriers to Sustainable Procurement

Although there are many benefits to green procurement, it is often difficult to implement policies due to legislative constraints, accounting methods that do not take into account the unique qualities of green products, poor organization design, and poor procurement practices (Williams, Chambers, Hills, & Dowson, 2007).

### 2.7.1 Legal Barriers

When implementing green procurement, public sector organizations, such as the Croydon Council, are often limited by international and national procurement laws. The European Union procurement law, the Gershon efficiency agenda, and Comprehensive Spending Review 2004 (CSR 04) are procurement laws that can limit green product choices. The European Union procurement law requires buyers to have a transparent and nondiscriminatory procurement process (Williams et al., 2007). These regulations do not allow buyers to introduce irrelevant pre-qualifications to contracts (Williams et al., 2007). Often times, buyers are concerned that environmental sustainability would be considered an irrelevant pre-qualification. However, with careful wording and interpretation of the law, buyers can show that environmental sustainability is relevant to the contract (Williams et al., 2007).

The Gershon efficiency agenda and CSR 04 require Councils to make a yearly budget saving of 2.5% (Williams et al., 2007). They also require councils to assess value for money, or “the optimum combination of quality, performance, and price” (Williams et al., 2007). By carefully choosing competitive vendors, considering whole life costs, and including

sustainability as an indicator of quality, Councils can purchase green products while still following these regulations (Williams et al., 2007).

### **2.7.2 Economic Barriers**

Monetary constraints are often cited by procurement staff as a barrier to green procurement. Assessment of the costs and benefits of green procurement requires a different type of economics than traditionally used. Organizations need to acknowledge immediate costs, such as higher purchasing prices, as well as long term costs, such as electricity costs and the cost of environmental clean-up (Epstein, 2008). According to the Croydon Council, when considering the economics and value for money of green technology, one should examine “whole life” costs including energy savings, durability, administration costs, maintenance, and waste reduction (Croydon Council, 2002). This is often referred to as life cycle analysis (LCA), and includes costs from design to disposal (Plas & Erdmenger, 2000). LCA takes into consideration the costs of raw material extraction, manufacturing, packaging, transport, storage, and utilization (Plas & Erdmenger, 2000). Even when using life cycle analysis strategies, the Croydon Council recognizes that there is value to environmental benefits and decisions need to be based on judgment rather than a narrowly defined formula (Croydon Council, 2002). For example, purchasing paper or timber products requires a much different type of analysis than purchasing renewable electricity.

Organizations are often hesitant to purchase environmentally friendly products due to their high initial costs, although the long-term savings may be substantial. Studies have shown that increasing energy efficiency is often more effective than curtailing energy use of inefficient technologies (Gardner & Stern, 2008). This often requires the purchase of new equipment and supplies, but results in large financial return (Gardner & Stern, 2008). As experience and investments increase overtime, the price of environmentally friendly alternatives is likely to fall (Stern, 2007). In other words, the costs of environmentally friendly products are expected to decrease with “experience” and “scale”.

### **2.7.3 Organizational Barriers**

In addition to monetary and legal barriers, poor organizational design, institutional inertia, and poor procurement processes can prevent successful green procurement practice. Scattered and complex procurement functions cause unnecessary work as different departments or organizations work to meet identical needs (Williams et al., 2007). This leads to teams being under-resourced and over-worked (Williams et al., 2007). Organizations should centralize procurement and have one team that creates the procedure, manages contracts, and acts as a liaison with other departments (Williams et al., 2007). The EU Guide to Greener Purchasing outlines the sustainable development task team in Pori, Finland as an example of a centralized procurement team (Plas & Erdmenger, 2000). Pori's team includes a head liaison, the eco-consultant; two meeting leaders, the heads of the environmental protection and the procurement departments; and six procurement officers from different sectors of the organization (Plas & Erdmenger, 2000). This centralized team works against the effects of institutional inertia, in which organizations resist change (Hayward, 1975). Institutional inertia can be a barrier to green procurement because it prevents procurement policies from evolving to meet environmental sustainability requirements. Procurement practices must also include proper data collection (Williams et al., 2007). This includes quality data on contracts and prices that is readily available within the organization (Williams et al., 2007). Finally, organizations should be sure that departments are not pressured to spend their entire budget for fear of reduction in coming years, as this leads to frivolous and unnecessary spending (Williams et al., 2007).

## **2.8 Strategy for Green Procurement Progress**

### **2.8.1 Clearly Defined Policies**

As previously stated, there are many barriers to green procurement that organizations must overcome. The first step to successful green procurement is to create a clearly defined policy (Williams et al., 2007). Policies should include background information on legislation, targets, and environmental alternatives to common purchases (Read, 2008). Policies should be short and concise while still listing specific components of the framework, and should include a personal statement outlining the organizations commitment to green procurement (London

Regeneration Network [LRN], 2004). This policy should be available to all suppliers and to staff within the organization (Williams et al., 2007). The Sustainable Procurement Task Force's Flexible Framework can be used by organizations to evaluate their current green procurement policies to determine where improvement is needed (Williams et al., 2007).

### **2.8.2 Employee Involvement**

In order to prevent the effects of institutional inertia, it is important to convey the significance of green procurement responsibilities to all employees of the organization (Williams et al., 2007). Commitment for green procurement policies must be secured at the highest levels in the organization (Williams et al., 2007). Organizations should have at least one green procurement champion; someone who pushes for the implementation of environmental criteria into procurement contracts (LDA, 2009). Ideally, goals and targets for implementing green procurement should be in the green procurement champion's employee objectives (LDA, 2009). Staff should understand how green procurement works, as well as what the laws regarding procurement are in their area, including the EU procurement laws (Williams et al., 2007). The European Union highlights Sweden's training policy as being highly effective (Plas & Erdmenger, 2000). The Federation of Swedish County Council's proposes that training include "legally viable environmental requirements, tools for green procurement, evaluation of suppliers' answers to environmental requirements, Environmental Management Systems and procurement, the role of the procurement officer, and best practice examples of Swedish County Councils" (Plas & Erdmenger, 2000). Green procurement planning should include guiding principles regarding procurement and key questions should be identified to ask suppliers (Williams et al., 2007). Tools that aid in identifying environmental impacts of purchases should be made available to all procurement staff (Williams et al., 2007). Finally, staff should be made aware of even minor improvements as a form of encouragement (Williams et al., 2007).

### **2.8.3 The Procurement Process**

Before making purchases, procurement staff should ask several questions to avoid purchasing materials and services that are not needed, that are present elsewhere in the

organization, or that can be rented or shared rather than purchased (LRN, 2004). If the purchase is deemed necessary, then the tendering process should begin.

In public sector organizations within the European Union, such as the Croydon Council, the tendering process begins with the advertising of the need on the Official Journal of the EU (OJEU) (Office of Government Commerce, 2008). This need can also be advertised on websites such as supply2.gov.uk. Interested suppliers answer Pre Qualifying Questions. The organization uses these answers to decide which vendor to award the contract to (Croydon Council, N.D.). This questionnaire asks for information on several areas, including sustainability (Croydon Council, N.D.). Information requested in the Croydon Council's Pre Qualifying Questionnaire includes contact information for the person in charge of environmental management, information regarding the supplier's environmental policy for the specific goods or service, explanation of any prosecution by environmental authorities, and details about how the supplier complies with specific environmental laws (Croydon Council, N.D.).

Staff should next consider the environmental impact of the entire supply chain, which includes processes from harvesting materials to disposal of products (Rutherford, 2010). Production of the product should be considered, including whether recycled or virgin materials were used, the amount of pollution generated, and the amount of energy and water used in production (LRN, 2004). Packing and shipping should have minimal environmental effects, and operation and maintenance should be sustainable in nature (LRN, 2004). Finally, disposal criteria such as whether the product will be recycled, reused, or put in a landfill, must be considered (LRN, 2004). Table 2 outlines environmental impacts of different steps in the supply chain, including material composition, transport, manufacturing, packaging, product use, and end of life disposal.

Table 2: Environmental Impacts of the Supply Chain (Plas & Erdmenger, 2000)

Product characteristics	Ecological alternative	Environmental consequence <sup>2</sup>				ACTION - Examples -
		MATERIAL	ENERGY	EMISSIONS	WASTE	
Material composition	Recycled material	X	X		X	Use recycled toilet and towel papers. Procure refuse sacks made of recycled plastic.
	Renewable material	X				Choose recycled concrete or crushed rock rather than gravel as a construction material.
	No toxic substance			X	X	Use chlorine-free paper, PCB-free electronics or PVC-free floor coverings.
Transport	Short distance		X	X		Buy your fruits and vegetables from local producers.
	Transport means		X	X		Make use of rail and boat versus road and plane transport.
Manu- facturing	Taking into account the environment	X	X	X	X	Choose a producer which has an environmental management system.
Packa- ging	Reduction	X			X	Prefer recyclable, easily returnable or, if possible, no packaging at all.
Product use	Durability	X			X	Buy long-term guaranteed carpets.
	Repairability / Upgradability	X			X	Choose computers which can be upgraded and do not need to be replaced completely when becoming outdated.
	Compatibility with equipment/user habits	X	X	X	X	When changing for a recycled paper, test its compatibility with copiers and printers before distributing it throughout your organisation.
	Energy requirements		X			Choose low energy light bulbs to save energy (and reduce your annual cost by up to 70%).
	Safety for users	X	X	X	X	Use alternative pesticides or alternative methods of pest control.
End of life	Re-use potential	X			X	Buy refillable toner cartridges for laser and ink jet printers.
	Recyclability	X	X		X	When buying white goods, make sure that they can easily be dismantled and their material recycled.
	Disposal			X	X	Use biodegradable synthetic vegetable-based hydraulic oil for fleet maintenance.

### 2.8.4 Tools for Assessing Environmental Impact

The easiest way to ensure that materials and goods are eco-friendly is to look for an accredited eco-label (LRN, 2004). It is, however, necessary to be sure that the eco-label is certified (LRN, 2004). London Remade provides a list of accredited eco-labels to aid in this distinction.

Environmental Management System (EMS) is a structured tool used by organizations to assess the environmental impacts of their purchases (LRN, 2004). The process is cyclical and begins with the establishment of targets and objectives, which are then implemented through an action plan (LRN, 2004). Results are measured and plans are assessed, resulting in the establishment of new targets, hence the cycle is repeated (LRN, 2004).

## 2.9 Mayor of London's Green Procurement Code

One of London's incentives to help achieve their goal of reducing emissions is the "Mayor of London's Green Procurement Code" (Silverstone, 2009). Awards are given to any company or local government willing to commit themselves to reducing the effects of their actions on the environment through responsible purchasing (Silverstone, 2009). These awards are not only an achievement a company can receive, but also an opportunity to gain quality information and tips for its green procurement initiatives (Silverstone, 2009).

The code was launched in 2001 through the London Development Agency, more specifically London Remade, and was originally designed to encourage recycling throughout the boroughs while trying to create a market for recycled products (Silverstone, 2009). After six years, the code was re-launched with a new goal of procurement. The code was made as a guide to organizations in green sourcing, capacity building, and major impact reduction (Read, 2008). From 2008-2009, the code saw over 50% increases to 1,686 green purchases in spending on green products and services (Silverstone, 2009).

The London Development Agency offers an online guide and advice on the Green Procurement Code website. The site offers organizations information to enhance their environmental knowledge, and steps or approaches to become more sustainable. The website describes global, national, and local policies regarding sustainability, such as the Kyoto Protocol, European Union Emissions Trade Scheme, and The Mayor's Climate Change Action Plan (Mayor of London's Green Procurement Code, 2009d). These policies are the major reason for organizations to join the Mayor of London's Green Procurement Code and help alleviate the environmental crisis. Being a member of the website allows an organization to review each category in the first part of the two part review, which is used to determine the organizations status for the Mayor of London's Green Procurement Code.

London Remade awards bronze, silver, and gold statuses based on performance throughout the fiscal year. In the 2007-08 fiscal year, the first year of the award, the London Borough of Croydon received a bronze status. In the 2009-10 fiscal year, Croydon improved with a silver status. (London Remade, 2009). The Croydon Council is still looking to improve its current status and is striving for gold in future years.

The requirements of the award are broken down into two progress review sections. The first review, which has adapted a process known as Flexible Framework, consists of 20 management questions on a 10 point scale covering 5 categories, “people; policy, strategy and communication; procurement processes; engaging suppliers; and measurement and results” (London Remade, 2009). The Flexible Framework assesses the quality of procurement activity and provides a clear route to better performance. The Task Force has stated that achieving a level 3 on the framework states that an organization is properly practicing sustainable procurement (National Audit Office, 2009). In the Mayor of London’s Green Procurement Code, achieving a Level 3 in the Flexible Framework diagram (Figure 3) awards that organization with a gold status, the highest status given by the code. In the future, London Remade plans to offer a platinum status for achieving levels 4 and 5.

The second section of the review examines the organization’s environmental impacts and green purchasing of products, materials, and services during the financial year (London Remade, 2009). The audit includes a breakdown between total organization spending versus the amount spent on green purchases as well as a list of the organization’s Key Performance Indicators (KPIs). These reviews are first completed by the organizations, then by a third party auditor (London Remade, 2009). A breakdown of the leaders expressed by the code in the 5 categories of the first review section can be seen in appendix D.

Figure 3 - Flexible Framework (DEFRA, 2006)

SPTF Flexible Framework	Foundation By April 2007	Embed	Practice By December 2009	Enhance	Lead
	Level 1	Level 2	Level 3	Level 4	Level 5
People	Sustainable procurement champion identified. Key procurement staff have received basic training in sustainable procurement principles. Sustainable procurement is included as part of a key employee induction programme.	All procurement staff have received basic training in sustainable procurement principles. Key staff have received advanced training on sustainable procurement principles.	Targeted refresher training on latest sustainable procurement principles. Performance objectives and appraisal include sustainable procurement factors. Simple incentive programme in place.	Sustainable procurement included in competencies and selection criteria. Sustainable procurement is included as part of employee induction programme.	Achievements are publicised and used to attract procurement professionals. Internal and external awards are received for achievements. Focus is on benefits achieved. Good practice shared with other organisations.
Policy, Strategy & Communications	Agree overarching sustainability objectives. Simple sustainable procurement policy in place endorsed by CEO. Communicate to staff and key suppliers.	Review and enhance sustainable procurement policy, in particular consider supplier engagement. Ensure it is part of a wider Sustainable Development strategy. Communicate to staff, suppliers and key stakeholders.	Augment the sustainable procurement policy into a strategy covering risk, process integration, marketing, supplier engagement, measurement and a review process. Strategy endorsed by CEO.	Review and enhance the sustainable procurement strategy, in particular recognising the potential of new technologies. Try to link strategy to EMS and include in overall corporate strategy.	Strategy is: reviewed regularly, externally scrutinised and directly linked to organisations' EMS. The Sustainable Procurement strategy recognised by political leaders, is communicated widely. A detailed review is undertaken to determine future priorities and a new strategy is produced beyond this framework.
Procurement Process	Expenditure analysis undertaken and key sustainability impacts identified. Key contracts start to include general sustainability criteria. Contracts awarded on the basis of value-for-money, not lowest price. Procurers adopt Quick Wins.	Detailed expenditure analysis undertaken, key sustainability risks assessed and used for prioritisation. Sustainability is considered at an early stage in the procurement process of most contracts. Whole-life-cost analysis adopted.	All contracts are assessed for general sustainability risks and management actions identified. Risks managed throughout all stages of the procurement process. Targets to improve sustainability are agreed with key suppliers	Detailed sustainability risks assessed for high impact contracts. Project/contract sustainability governance is in place. A life-cycle approach to cost/impact assessment is applied.	Life-cycle analysis has been undertaken for key commodity areas. Sustainability Key Performance Indicators agreed with key suppliers. Progress is rewarded or penalised based on performance. Barriers to sustainable procurement have been removed. Best practice shared with other organisations.
Engaging Suppliers	Key supplier spend analysis undertaken and high sustainability impact suppliers identified. Key suppliers targeted for engagement and views on procurement policy sought.	Detailed supplier spend analysis undertaken. General programme of supplier engagement initiated, with senior manager involvement.	Targeted supplier engagement programme in place, promoting continual sustainability improvement. Two way communication between procurer and supplier exists with incentives. Supply chains for key spend areas have been mapped.	Key suppliers targeted for intensive development. Sustainability audits and supply chain improvement programmes in place. Achievements are formally recorded. CEO involved in the supplier engagement programme.	Suppliers recognised as essential to delivery of organisations' sustainable procurement strategy. CEO engages with suppliers. Best practice shared with other/peer organisations. Suppliers recognise they must continually improve their sustainability profile to keep the clients business.
Measurements & Results	Key sustainability impacts of procurement activity have been identified. Simple measures based on achieving all aspects of the Foundation level of the flexible framework are put in place and delivered.	Detailed appraisal of the sustainability impacts of the procurement activity has been undertaken. Measures implemented to manage the identified high risk impact areas. Simple measures based on achieving all aspects of the Embedding level of the flexible framework are put in place and delivered.	Sustainability measures refined from general departmental measures to include individual procurers and are linked to development objectives. Simple measures based on achieving all aspects of the Practising level of the flexible framework are put in place and delivered.	Measures are integrated into a balanced score card approach reflecting both input and output. Comparison is made with peer organisations. Benefit statements have been produced. Simple measures based on achieving all aspects of the Enhancing level of the flexible framework are put in place and delivered.	Measures used to drive organisational sustainable development strategy direction. Progress formally benchmarked with peer organisations. Benefits from sustainable procurement are clearly evidenced. Independent audit reports available in the public domain. Simple measures based on achieving all aspects of the Leading level of the flexible framework are put in place and delivered.

### III. Procedure

The goal of this project was to assist the Croydon Council in their green procurement strategy. The team gathered information about the Croydon Council's current green procurement policies and actions as well as the opinions of staff members from various departments. Leading organizations, as determined by the Mayor of London's Green Procurement Code, were investigated by the team to determine best practices in green procurement. Using this information, the team was able to make suggestions to Croydon to improve their current policies and practices. Information was gathered from the leading organizations, the Croydon Council, and green suppliers.

Muhammad Ali, the Environmental Management Officer of the Croydon Council, set up a tentative schedule for the project. The team began with orientation training with London Remade to learn about the Mayor of London's Green Procurement Code and its importance. Data was collected from the various teams and suppliers of the Croydon Council and used to complete the progress review, part one of the Mayor of London's Green Procurement Code.

While in London, the team had several resources. The most important of which was Croydon's Environmental and Sustainability Team, led by Kia Colbeck. The team also had access to the council's documents, including information used for previous submissions to the Mayor of London's Green Procurement Code. For information on the Mayor of London's Green Procurement Code, the team attended a private training session with Stuart Rutherford, a staff member at London Remade, the company that administers the code.

In order to assess green procurement in the London Borough of Croydon, the team focused on four objectives:

- Objective 1: Characterize the state of the art in green procurement practices in London
- Objective 2: Evaluate current green procurement policies in the Croydon Council
- Objective 3: Determine the opinions of staff about green procurement policies in the council
- Objective 4: Identify green products and suppliers that Croydon might adopt

These objectives were completed using a series of interviews, email correspondences, and surveys. Interview questions were tailored to different organizations and the sections of the code in which they excelled, whereas the survey was generic. The team conducted background research using documents suggested by the interviewees, the Environment and Sustainability Team of the Croydon Council, and the Mayor of London's Green Procurement Code. The team reviewed databases, reports, and memos to assess the Croydon Council's Green Procurement activities and policies. Results and findings are available in chapters 4 and 5.

### **3.1 Objective 1: Characterize the State of the Art in Green Procurement Practices in London**

The first objective was to identify the state of the art approaches in green procurement and identify best practices within London. To accomplish this task, interviews were conducted by the team with several of the previous gold level winners of the Mayor of London's Green Procurement Code. These organizations included the London Borough of Greenwich, which was one of two boroughs to achieve gold status and was shortlisted in the "People" section and highly recommended in the "Policy, Strategy, and Communication" section of the review; the London Fire Brigade, winner of the award for the "Procurement Process" section; Transport for London, which was highly recommended in the "Engaging Suppliers" category and won the award for the "Measurements and Results" section; and the London Borough of Hackney, which was the second borough to receive a gold status. Summaries of case studies made by London Remade can be found in appendices E-H. The team also gathered information on another leader in green procurement identified by London Remade, the London Metropolitan Police Service and Mapeley Estates, through email correspondence. The team also contacted the London Borough of Lambeth and the London Borough of Lewisham via email, but received no response.

Prior to these interviews, the team reviewed information regarding the participating organizations' green procurement policies from case studies by London Remade. With this information, important aspects including key accomplishments, whom to contact about green products, and opinions on what issues still remain with the green procurement code, were identified.

The goal of these interviews was to gather background information on green procurement practices in London and see what the leading organizations are accomplishing. The team asked questions pertaining to the organization's current and future green procurement practices, how they developed these policies, what some of the obstacles were when implementing effective green procurement practices, and how they overcame these obstacles. A preliminary list of interview topics is presented in Appendices I-L. Using these data, the team identified lessons that can be applied as Croydon seeks to improve its green procurement practices.

The team worked with the staff at London Remade to identify appropriate contacts at other organizations and contacted them at the end of the first week to set up appointments. A sample email can be found in appendix M and a preamble can be found in appendix N. The goal was to identify and interview the 'green procurement champion' at those organizations, a leader within the organization responsible for overseeing its green procurement practices.

One group member conducted the interview while a second group member took notes. The interviews took 45 minutes to an hour and were conducted on March 30, 2010 and on April 8, 2010. The interviews were semi-structured in nature containing both open and close-ended questions. This allowed for consistent data while allowing each interviewee to expand on what they thought were important issues. Sample interview questions can be found in Appendices I-L. The team consulted with the sustainability staff within the Croydon Council to develop these questions and topics.

### **3.2 Objective 2: Evaluate Current Green Procurement Policies in the Croydon Council**

The second objective was to collect information regarding Croydon's green procurement practices. This information was used in Croydon's application for the Mayor of London's Green Procurement Code. Using this information, the team assessed the Croydon Council's progress in applying green procurement strategies within the council offices and compared them to other organizations. The data were collected from staff within the Croydon council, including employees responsible for purchasing stationary, cleaning materials, housing materials, and newspaper materials. The team gathered information by speaking with Mr. Ali and using email

correspondence to obtain purchase records from procurement officers within the council. Most of these officers had contributed last year, although the housing information was added in this year's report. A sample email can be seen in Appendix O. The data collected will be submitted subsequently by council staff to the Mayor of London's Green Procurement Code via their website and used to complete the progress reviews.

To participate in the Mayor of London's Green Procurement Code, an organization must submit a progress review that comprises of two major sections. The first section includes a set of management questions on a 10 point scale. The second section is a review of the organization's green purchasing during the previous financial year. The first section or 'progress review' contains five sub-sections with questions pertaining to: people; policy, strategy, and communication; the procurement process; engaging suppliers; and measurement and results. The second progress review uses a detailed spreadsheet with information about purchases including the cost of the purchase, eco-labels, and asks for Environmental Key Priority Indicators (KPIs). Following submission of the progress review, a third party auditor is appointed to conduct an independent review of the organization's policies and practices.

### **3.3 Objective 3: Determine the Opinions of Staff about Green Procurement Policies in the Council**

The third objective was to determine the knowledge, attitudes, and practice of staff in different departments regarding Croydon's green procurement initiative. The team completed this objective using an anonymous online survey with key staff identified by Mr. Ali. An anonymous survey was used because staff might otherwise not feel comfortable giving their honest opinions about current policies and practices. The survey was administered online through <http://www.kwiksurveys.com>, and 11 of the 19 people contacted completed the survey. Results were anonymous; the team knew the people invited to participate, but did not know who responded and which responses belonged to whom. This technique was assumed to be more time efficient and convenient for staff, hopefully resulting in a better response rate. A sample email requesting participation in the survey can be found in Appendix P. The survey questions can be seen in Appendix Q. The survey identified employee's knowledge of the green

procurement policy, attitude toward the policy, and level of practice of the policy. Findings and conclusions are addressed in the following chapters.

### **3.4 Objective 4: Identify Innovative Green Products and Suppliers that Croydon might adopt**

The fourth objective was to identify environmentally friendly products and suppliers. The team gathered information for green products and services. This information was used by the team to create a guidebook for use within the Croydon Council (see Appendix R). The guidebook is broken into chapters focusing on different product categories. For each category, the team identified procurement guidelines and suppliers.

The team had planned to interview green suppliers used by the Croydon Council and other organizations implementing green procurement. This was meant to help the team gain insight into what the trends are in the green procurement market, what products were currently available and what made these products green, and how the economy was affecting the green market. However, given the structure of these businesses, face-to-face or conference call interviews were difficult to obtain. Green suppliers work in a very competitive market, and they prefer to keep information confidential. The team contacted several suppliers via telephone, and all interview requests were denied. This information was instead gathered from online databases and green procurement guides, from interviews with organizations who received a gold status in the Mayor of London's Green Procurement Code, and from the Croydon Council's previous procurement records and invoices.

## IV. Results and Discussions

### 4.1 Mayor of London's Green Procurement Code

The Mayor of London's Green Procurement Code is a service for London organizations that are committed to reducing their environmental impact through sustainable purchasing. Organizations are evaluated by a two part progress review that addresses several categories of green procurement: People; Policy, Strategy & Communication; Procurement Process; Engaging Suppliers; and Measurement and Results. An online progress review is used as a self-assessment tool through which organizations score themselves. After self-scoring is completed, an auditor scores the organization. Each category is scored on a scale of one to ten, with one being the lowest score and ten being the highest. Scores are generated based on several criteria for each category including the organization's follow-through of current procedures and response to the previous year's recommendations.

For the second part of the progress review, organizations list their five biggest environmental Key Performance Indicators (KPIs) and targets and outline purchasing information. The council's main green procurement categories were catering materials, building construction materials, cleaning and janitorial supplies, furniture, Information Communication Technology (ICT) supplies, and stationery. The total spending, total spending in each category as a percentage of the total procurement budget, and key suppliers are identified as part of the overview. These numbers are compared to previous year's entries to the code.

#### 4.1.1 Progress Review Part 1

The results for progress review part one of the Mayor of London's Green Procurement Code can be seen in Figures 4 and 5. As shown in figure 4, the Croydon Council scored an average of 8.45 out of 10 on their green procurement process. This is lower than their scores for previous years, which were 9.35 for the 2008-2009 report, and 8.95 for the 2007-2008. We believe this reflects a more realistic assessment of the council's green procurement efforts. In previous years the council's self-assessment score was often higher than the auditors score, but we expect the adjustment made by the auditor to be smaller this year. Figure 5 shows Croydon's average self-assessment scores for all three years that it has participated in the code.

Figure 4: Average Scores for Progress Review Part 1

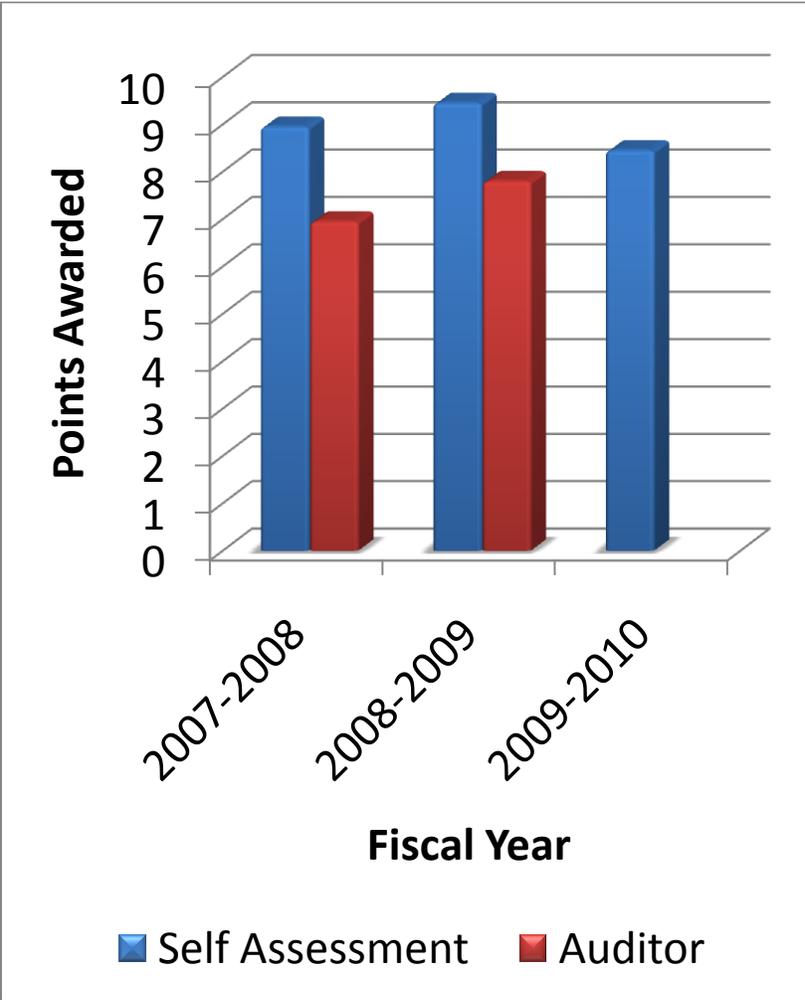
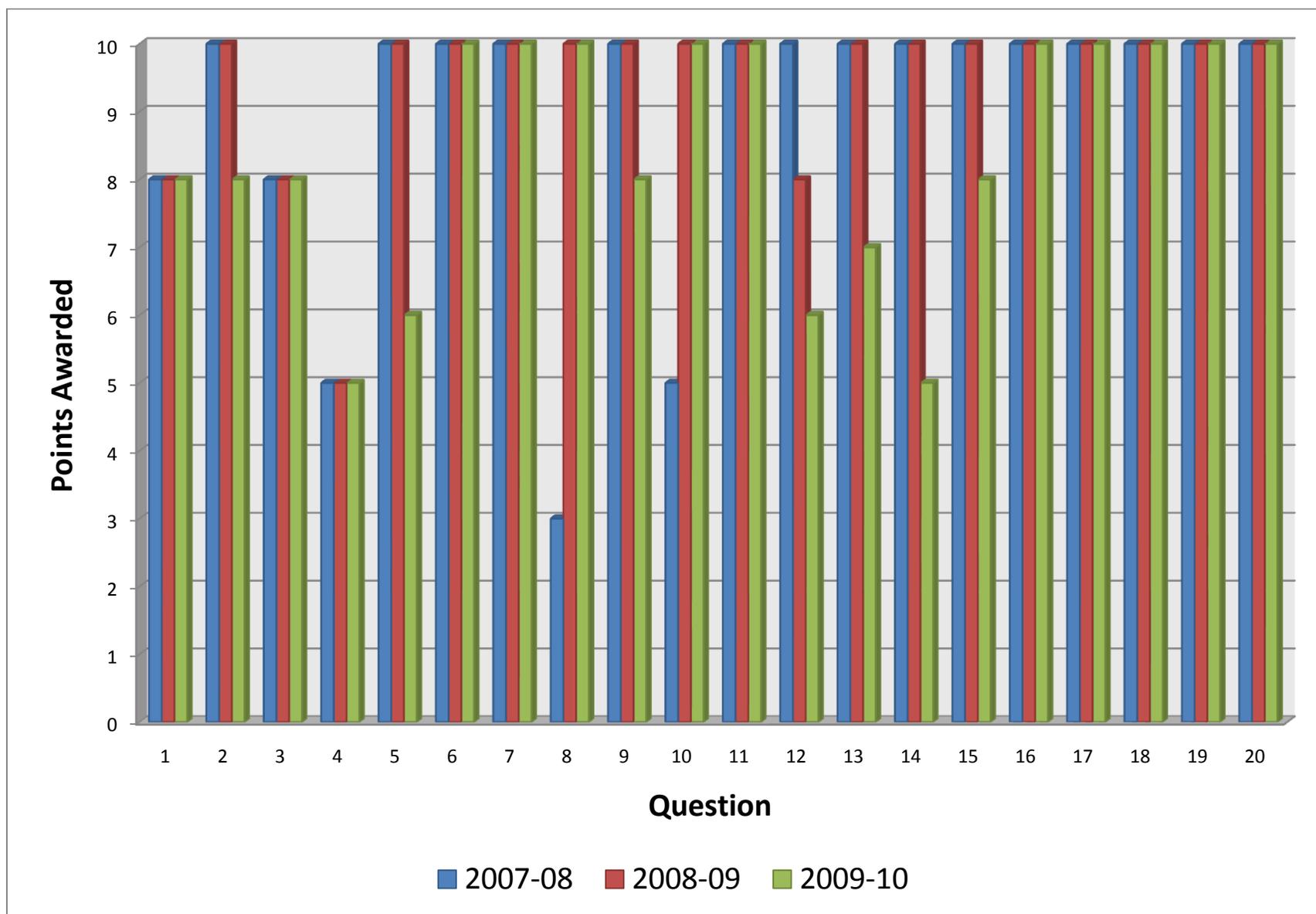


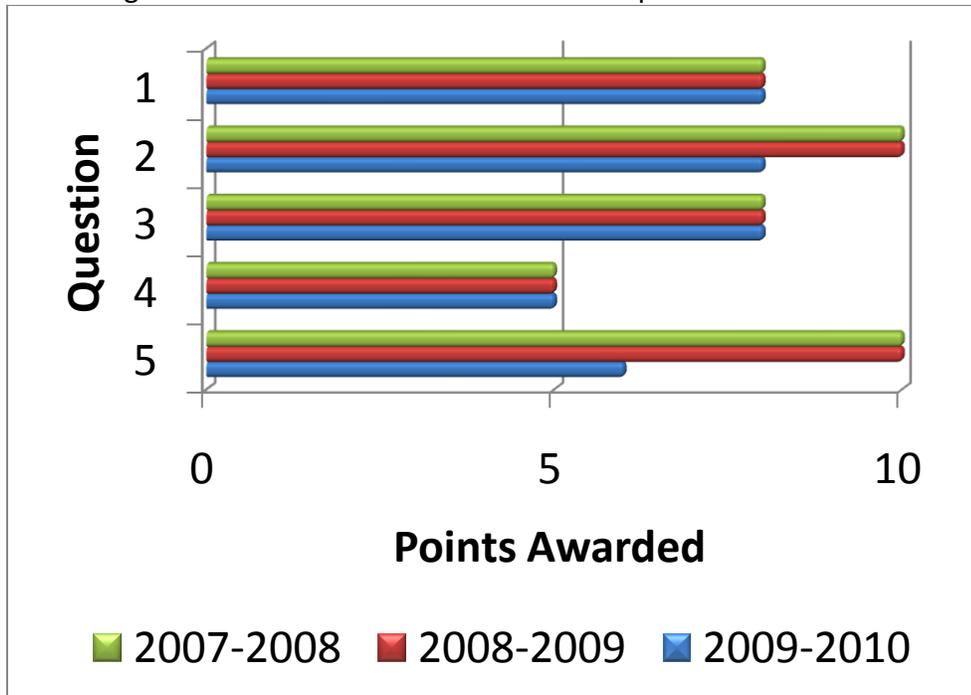
Figure 5: Croydon Council Self-Assessment Scores for Part One of the Progress Review



### 4.1.1.1 People

The “People” section of the first part of the Mayor of London’s Green Procurement Code assesses how key individuals responsible for carrying out green procurement policies are identified, the training that these people receive, and if there are green procurement requirements outlined in job descriptions (MoLGPC, 2010). For the “People” section of the first part of the Mayor of London’s Green Procurement Code, the team’s evaluation of the Croydon Council yielded an average score of 7 out of 10. This is lower than the average score of 8.2 the council assigned itself for this section for the past two years. The council scored 8 out of 10 for the first question of the code, which asks if a green procurement champion is identified in the organization. This score has remained consistent for the three years the council has participated in the code, which suggests that the council is doing alright, but could do better. The current and past year’s scores for this and all other questions of the “People” section can be seen in figure 6. With scarce resources it is often difficult to cultivate additional green champions and thus improve the scoring.

Figure 6: Self-Assessment Scores for “People” section



The Environmental Management Officer, Muhammad Ali, serves as the leading procurement champion for the Croydon Council and is the head contact for expertise in

environmental procurement. The team found that these environmental procurement roles are identified in the “job description and person specification” of the Environmental Management Officer. The Environmental Management Officer is responsible for the management for the Energy Efficiency Officer as well as the supervision of temporary staff, trainees, and work placement employees. The officer is also a member of the Environment and Sustainability Team (EaST). Mr. Ali’s role is to improve the environmental performance of the council. Mr. Ali reports to the Environment and Sustainability Manager, Peter McDonald. Mr. McDonald reports to the director of Economy and Sustainability, John Pyror. Mr. Pyror then reports to the Executive Director of Planning, Regeneration, and Conservation, Emma Peter. Having Mr. Ali work more directly with senior level management would improve the council’s score in this area. Mr. Ali and Mr. McDonald’s responsibility is to implement the council’s Environmental Procurement Policy. Mr. McDonald’s area of expertise is in BREEAM “excellence” and he applies the council’s Environmental Procurement Policy across all salient contracts and purchasing decisions. There have not been any changes or additional responsibilities made to any of these environmental officer job descriptions and roles. As a result, this score has remained the same.

The WPI team scored the council 8 out of a possible 10 for the second and third questions of the code in 2009, which referred to the sustainable procurement training of both its key procurement staff and its procurement support staff. The council’s score for the training of its key procurement staff, question two, decreased from 10 for the previous two years. The drop in the score is due to a combination of factors. The council is not utilizing all training opportunities available to them. Staff members receive the same sustainable procurement training as in previous years with only minor changes. For 2007-2008, the eight staff members with the greatest procurement responsibility received a one-day sustainable procurement training seminar through the London Centre of Excellence. For this same year, 37 officers with procurement responsibilities completed CIPS Level 2 training. Since last year, 23 of the Council’s 37 key procurement staff have attended the in-house Sustainable Procurement Workshop Training conducted by the London Centre of Excellence. Additionally, 23 procurement staff members have attended the CIPS “Commercial Negotiation” Training and 27 have attended the CIPS “You and Your Contractor Training”. The council has 51 officers responsible for

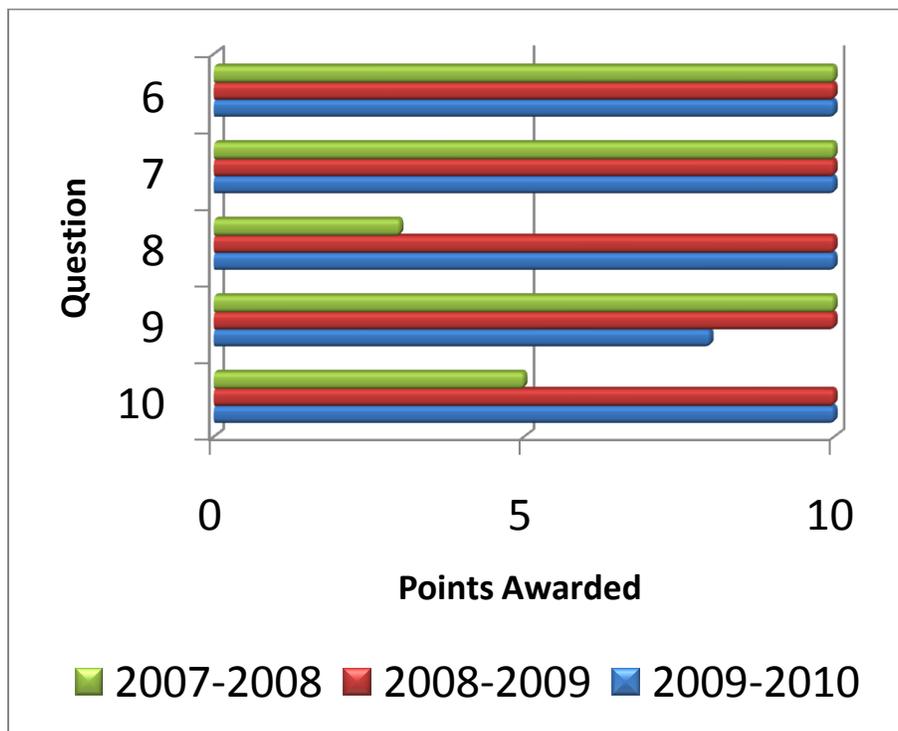
procurement finances that have completed CIPS level 2 training. This active training involves a module on sustainable procurement strategies that is tailored to the council's own Environmental Procurement Policy. The training uses case studies from the council's contracts to provide relevant sustainable procurement tactics. Furthermore, it provides a consistent level of knowledge and understanding of sustainable procurement. The training's successful completion is evident in procurement team training records. In addition, Mr. Ali along with Chloe McLaren Webb, Project Support Officer, attended a one day sustainable procurement training course conducted by Action Sustainability. The council's score of 8 for the training of its procurement support staff, the third question, has remained consistent since the council's involvement in the code. This is due to procurement staff receiving the same sustainable procurement training as previous years.

For the fourth question, the Croydon Council received 5 out of 10 for including sustainable procurement in the Council's procurement staff's personal development and appraisal process. This score has remained consistent since the council's participation in the code. Although sustainable procurement objectives are identified in the job descriptions of Mr. McDonald, Mr. Ali, and Miss McLaren Webb, it is important that higher level management, like Mr. McDonald, also have set objectives that can be measured. The senior procurement officer's description only makes reference to the council's environmental procurement policy being implemented. For proper implementation of the council's Environmental Procurement Policy, systems should be in place to ensure that all staff members involved in procurement or contract management are following the policy. Lastly, for the fifth question of the "People" section, the team scored the council 6 out of 10 for publicizing their achievements in sustainable procurement. This is a large decline from the scores of 10 in the previous two years. This is due to the council only publicizing their achievements by one source, via online. Although the council does publicize their achievements externally via their website, the London Centre of Excellence website, and in national working groups, more advertising is needed. The council should use print sources and conferences as other good public relations opportunities to present their accomplishments in green procurement.

### 4.1.1.2 Policy, Strategy, and Communication

The “Policy, Strategy, and Communication” section of the first part of the Mayor of London’s Green Procurement Code assesses how environmental objectives are communicated to staff and if there is an established group for developing an environmental procurement policy (MoLGPC, 2010). For the “Policy, Strategy, Communication” section, the team’s evaluation of the Croydon Council yielded an average score of 9.6 out of 10. This is only slightly higher than the auditor’s average score of 9.4 for 2008-2009, while slightly lower than the council’s self-assigned score of 10 for that same year. For the 2007-2008 evaluation of this section, the council assigned itself an average of 7.6 and the auditor assigned an average of 7.8. In the past two years the council has greatly improved upon its score. The current and past year’s scores for all questions of the “Policy, Strategy, and Communication” section can be seen in figure 7.

Figure 7: Self-Assessment Scores for “Policy, Strategy, and Communication” section



The Croydon Council received 10 out of 10 on the sixth question of the code which addressed having agreed upon sustainable objectives within the organization. This score has remained consistent for the three years the council has participated in the code. These

sustainability objectives are outlined in the Croydon Environment and Climate Change Partnership (EACCP) and its community strategy. Both documents set several environmental targets, including to reduce carbon emissions by 25% by 2015, a household waste recycling and composting target of 40% by 2011, and a 5,000 tonne reduction of CO<sub>2</sub> from 2005-2010, as part of the Local Authority Carbon Management Programme (LACMP). All the council's targets can be linked to National Indicator (NI) 185, 186, and 188 on climate change adaptation. The Croydon Council's Environment and Climate Change Strategy serves as a comprehensive breakdown of how all of its environmental targets can be achieved. For the seventh question, the council scored 10 out of 10 for having a sustainable procurement policy. This score has remained constant for the council. Additionally, the council received the same score for the eighth question for having a strategy to implement this policy. The council has improved in this area since its 2007-2008 evaluation's score of 3. The Croydon Council has an approved sustainable procurement policy, the Environmental Procurement Policy, which is updated at least every 2 years. The council already has a procurement strategy in place that includes sustainable procurement. The strategy includes guide and checklist documents that procurement staff can refer to. For instance, within the strategy are the "Energy & Sustainability Housing Checklist", "Buying Green Does Not Cost the Earth, Supplementary Guidance I" and "Supplementary Guidance II" documents. The policy and strategy are both available to the public online.

The council scored 8 out of 10 for the ninth question, regarding whether or not the borough has a sustainable procurement strategy that is adequately linked with its other organizational strategies and management systems such as the corporate strategy and Environmental Management System (EMS). The council's Corporate Plan, departmental service plan, and team action plan all make reference to sustainable procurement. This shows that there is some level of sustainable procurement activity being implemented throughout the council, although there is no concrete action plan for sustainable procurement. This gap inhibits the progression of the council's sustainable procurement. There is no sustainable procurement action plan; hence there is not a sufficient linkage amongst other strategies within the council. The council also lacks an EMS. In previous years, the council scored itself a 10 in this area.

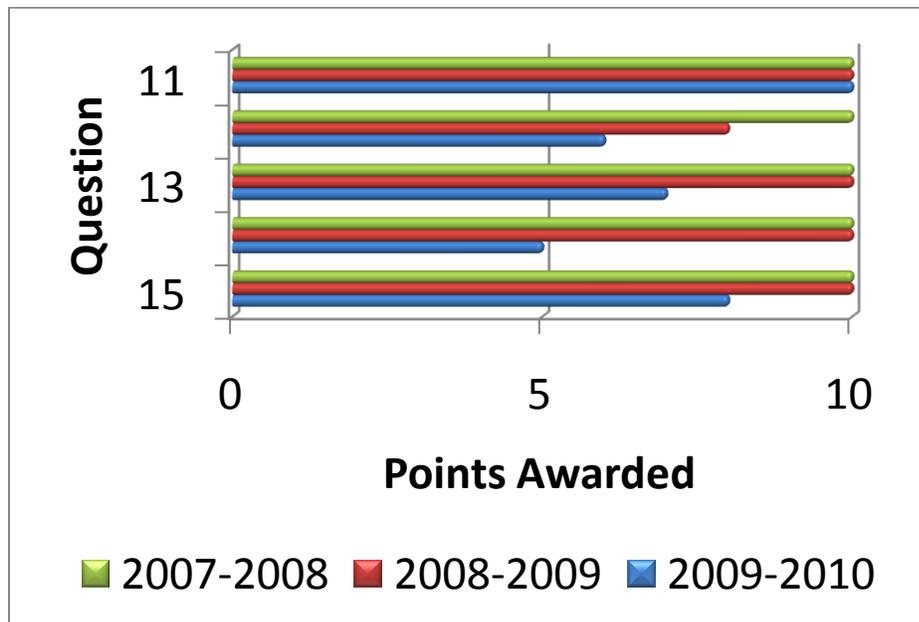
Finally, in the “Policy, Strategy, and Communication” section, the Croydon Council scored 10 out of 10 for the tenth question which referred to having the council’s sustainable procurement strategy scrutinized. The council has improved upon this score from its past, in 2007-2008 the council was scored a 5. Although the policy was reviewed and supported by London Remade against the Mayor of London’s Responsible Procurement priorities, external audits of it conducted by the Islington Council/Groundwork (in the past) and Romec, and is reviewed by Local Strategic Partners, the council ideally should have more external sources critiquing the code. The team working in collaboration with Mr. Ali on evaluating and making suggestions to improve the council’s green procurement policies is fulfilling that role this year. The team is a completely objective outside party completing in-depth analysis and evaluation of the council’s procurement practices. This should improve the council’s score for the submission this year to the code. However, professionals in the field should also be used.

#### **4.1.1.3 Procurement Process**

The “Procurement Process” section of the first part of the Mayor of London’s Green Procurement Code assesses how environmental sustainability is addressed in contracts, how targets are set with suppliers, and how expenditure analysis is conducted within the organization (MoLGPC, 2009g). Scores for the “Procurement Process” section can be seen in figure 8. For the “Procurement Process” section of the first part of the Mayor of London’s Green Procurement Code, the team’s evaluation of the Croydon Council yielded an average score of 7.2 out of a possible 10, the lowest score of any section. This indicates that the council feels the procurement process could be improved. This average is significantly lower than in previous years. In 2007-2008, the council’s self assessment received an average score of 10 in this section, and in 2008-2009, the average score was 9.6. Moreover, the score for each question was lower than in previous years. As stated earlier, this does not necessarily mean that the council’s process is worsening over the years, but rather that they are being more critical of their process and have a higher expectations than in previous years. This may be partially due to the feedback they receive from auditors from the Mayor of London’s Green Procurement Code.

The Croydon Council’s expenditure analysis received a score of 10 out of 10, which has remained consistent throughout the three years that the council has participated in the code. The council uses an external web service called “The Observatory” to evaluate expenditure in its top 5 spending categories. According to their website, the Observatory “delivers the tools, intelligence and data your procurement function needs to reduce costs, realize collaboration opportunities, improve contract compliance, and drive continuous improvements in spend and supplier management” (Spikes Cavell, 2010). The council scored 6 out of 10 on its knowledge of its sustainability impacts. Although the organization has various Key Priority Indicators for different environmental impacts and is working to reduce its consumption of natural resources for its Local Area Agreement targets, more needs to be done. The council scored slightly higher, 7 out of 10, in their consideration of sustainability criteria in contracts. This is done through Pre Qualifying Questionnaires related to sustainability, contract specifications regarding sustainability, and contract monitoring, in which there are consequences for suppliers that do not meet contract specifications. The council received its lowest score in this section, 5 out of 10, for its risk analysis. The council scored 8 out of 10 on the final portion of this section, which assesses their targets to improve sustainability with suppliers. Currently, the council sets goals, such as fairtrade targets for catering and recycling targets for stationary.

Figure 8: Self-assessment Scores for the “Procurement Process” Section



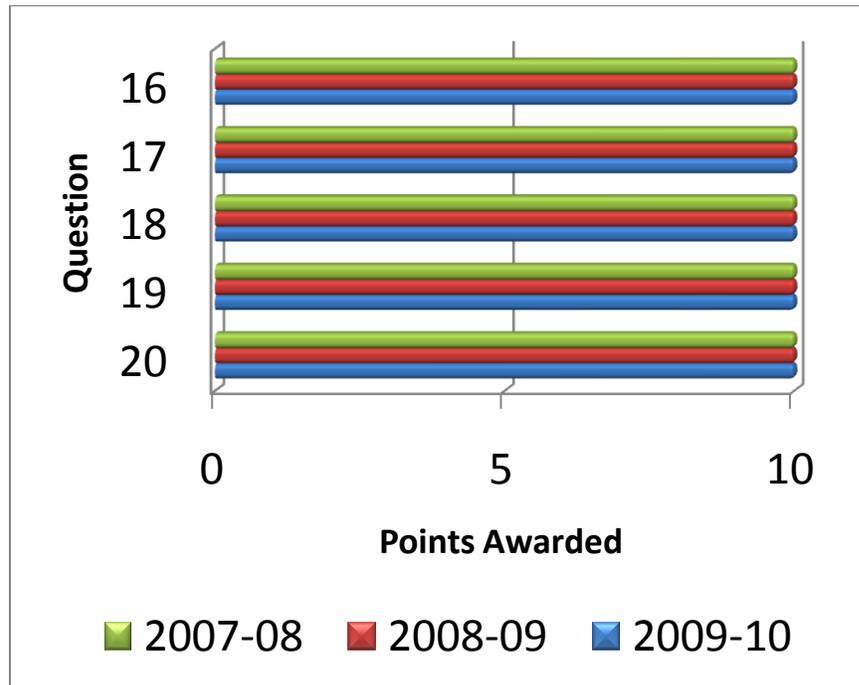
#### **4.1.1.4 Engaging Suppliers**

The next portion of the review assesses the Croydon Council's relationship with their suppliers. Scores for this section can be seen in figure 9, questions 16 and 17. In this section, the team scored the council 10 out of 10 for all questions. This is consistent with the previous two years. The council uses an E-procurement system to easily reach multiple suppliers via websites and contract databases, and hosts forums such as "Meet the Buyer" for local vendors. Also, the council communicates with suppliers on sustainable procurement targets and strategies.

#### **4.1.1.5 Measurements and Results**

The final section of the first review assesses how the Croydon Council measures its performance. Scores for this section can be seen in figure 9, questions 18, 19, and 20. The council also scored 10 out of 10 on each question in this section both this year and in previous years. Results are measured through the Mayor of London's Green Procurement Code and the Key Line of Enquiry (KLOE 3.1), which is used by the Audit Commission to assess sustainable procurement practices. Results are then compared with case studies from other organizations participating in the code and progress reviews carried out with peer boroughs. In addition, the team conducted interviews of leading organizations, allowing for further comparison.

Figure 9: Self-assessment Scores for “Engaging Suppliers” and “Measurements and Results” sections



#### 4.1.2 Progress Review Part 2

The group gathered information and spending data for the submission for part 2 of the Mayor of London’s Green Procurement Code. Information included stating Croydon’s major Key Performance Indicators (KPIs) in categories such as energy use, waste to landfill, CO<sub>2</sub> emissions, and air pollution. The council also had to describe how these KPIs were being measured and met by the council. The data needed for part 2 was the council’s spending on green procurement including catering, cleaning & janitorial, furniture, building construction materials, and stationery. Stationery accounted for the largest area of spending on environmentally friendly products. The council spent over £170,500 on this product area. Products include recycled paper, reused pens and pencils, ink cartridges, and other paper products.

The Mayor of London’s Green Procurement Code requires that the Croydon Council specifies its major KPIs. Facilities Management and Leisure Management contracts have KPIs limiting the energy used and are monitored to meet the new National Indicator (NI 185). Highways’ KPI is measured to reduce construction waste to landfill. For lowering CO<sub>2</sub> emissions,

the Croydon Council has established the Carbon Management Programme to measure and reduce the council's emissions.

The team learned that one of Croydon's largest and most important contracts was with Office Depot who supplies a wide variety of products from stationary to office furniture. The hundreds of invoices from Office Depot this past fiscal year was the largest part of the data collection. Office Depot was one of Croydon's major vendors and had a lot of eco-friendly products to offer. Many of the orders had only a small amount ordered. If Croydon had committed to buying more in bulk it could have reduced transportation emissions and paper work.

The group was not able to collect all the necessary data needed for part 2 of the code. Our timeframe during our project was too soon for some of the data to be collected such as IT and highways. These were two major sections of green spending. The council was still trying to gather all of its financial information, as the fiscal year had just ended.

## **4.2 Knowledge of Green Procurement, Attitudes towards Green Procurement, and Practice of Green Procurement among Croydon Council Staff**

The project team conducted a survey of staff members involved in procurement to gauge knowledge, attitude, and practice. Eleven out of nineteen (58%) staff people completed the survey after numerous reminders and requests. The low response rate is most likely the result of staff members being busy with the current restructure and with the end of the fiscal year. The small sample size indicates that the data may not be as accurate as the team had hoped.

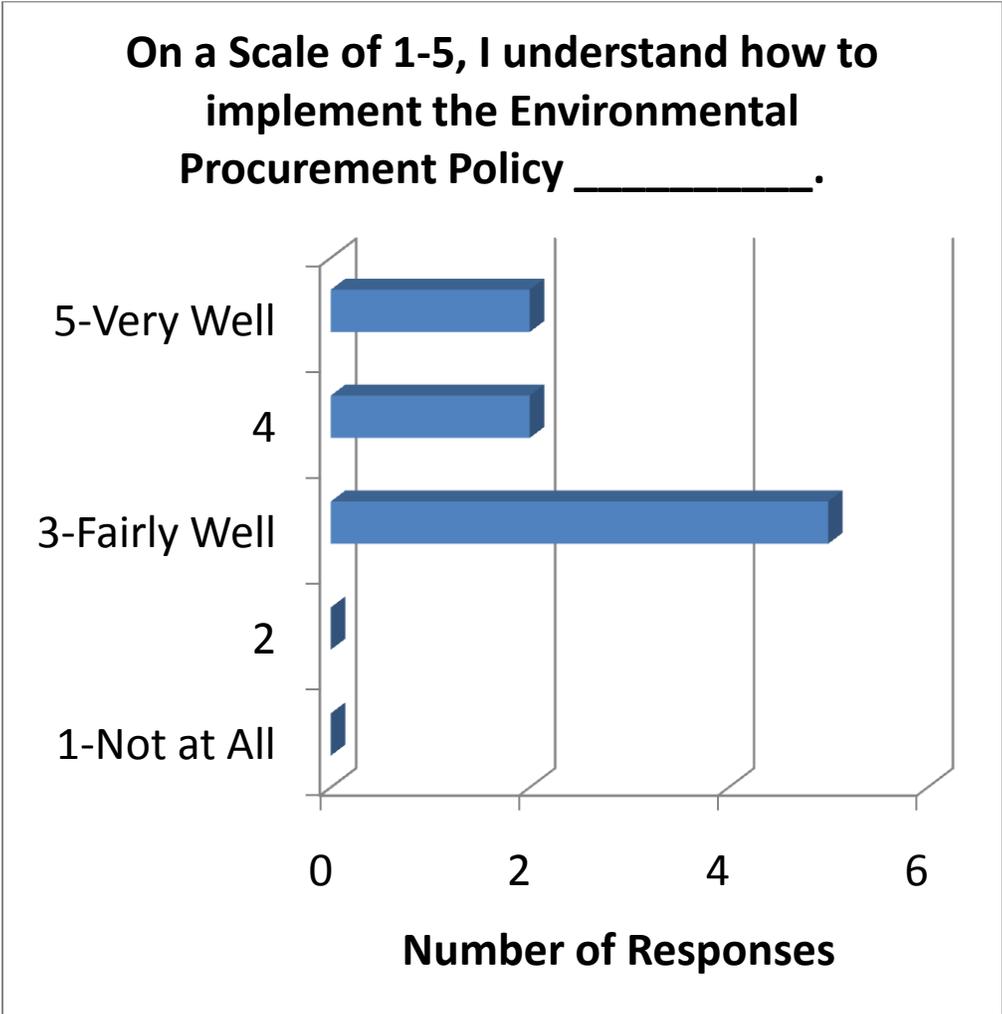
Furthermore, the people who responded to the survey may have done so because they are more motivated about green procurement than others. Nevertheless, the responses are indicative of knowledge, attitudes, and practices among staff members and will serve as a baseline against which to measure progress in the future.

### **4.2.1 Knowledge of the Environmental Procurement Policy and Green Procurement**

Questions one through four and question twelve of the fourteen question survey assessed staff members' knowledge of green procurement and Croydon's Environmental Procurement Policy (EPP). Ten out of eleven (91%) surveyed staff members reported knowing

that the Croydon Council had an Environmental Procurement Policy and knowing where to find this policy. Nine out of eleven (82%) reported having read this policy. When asked to rate their understanding of how to implement the Environmental Procurement Policy on a scale of 1 to 5; with 1 meaning they do not understand it at all, and 5 meaning they understand it very well; the average rating was 3.67. Figure 10 shows a histogram representing people's answers to this question. Only nine of the survey participants answered this question, however, no one answered below 3, which was the most popular answer. When asked whom they would go to for guidance on green procurement, all eleven participants answered. Answers included the procurement team, the Environment and Sustainability Team, Garry Seed (Procurement Officer), Kia Colbeck (Head of the Environment and Sustainability Team), and Muhammad Ali (Environmental Management Officer). The most popular answer was the Environment and Sustainability Team, with six responses.

Figure 10: Croydon Council Staff Members' Knowledge of How to Implement the Environmental Procurement Policy

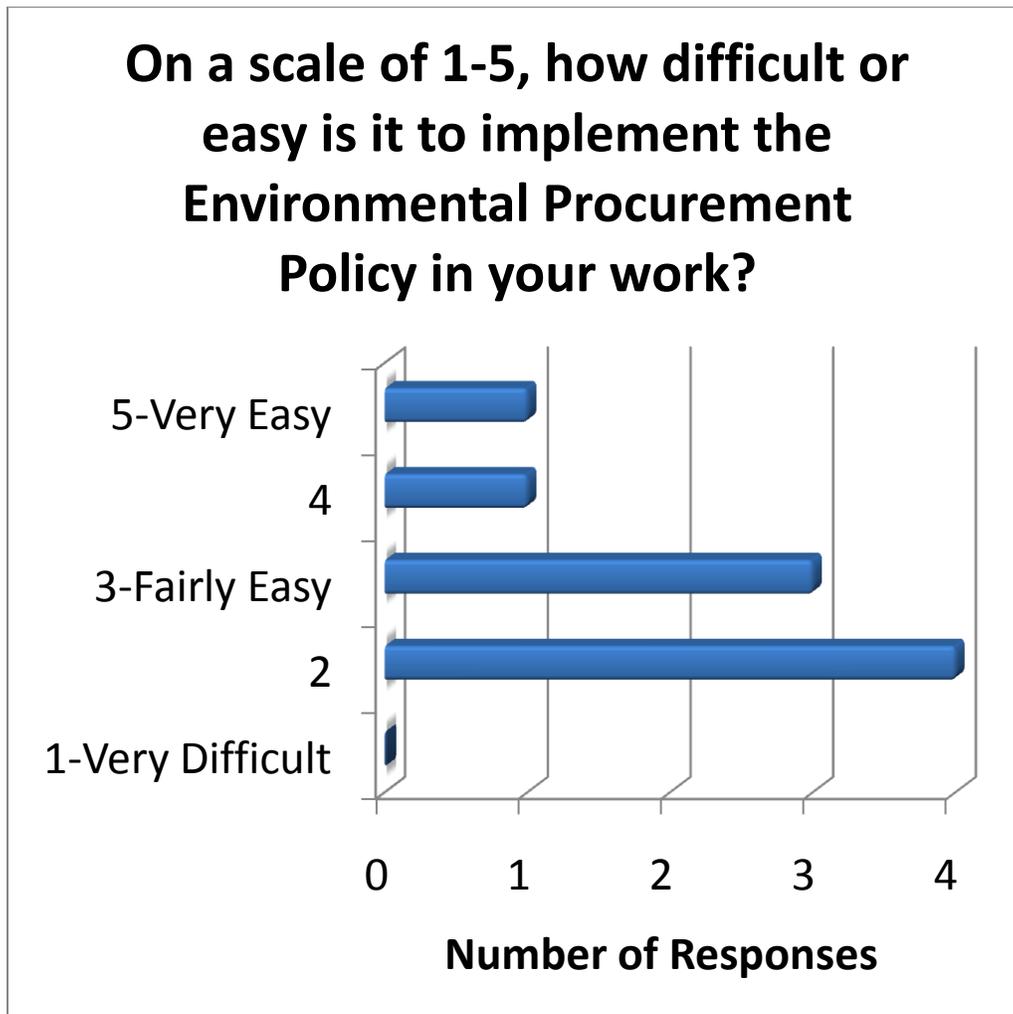


**4.2.2 Attitude towards the Environmental Procurement Policy and Green Procurement**

Questions five, six, eight, ten, eleven, thirteen, and fourteen focused on staff members' attitudes toward green procurement and the Environmental Procurement Policy. When asked to assess the difficulty of implementing the policy on a scale of 1 to 5, with 1 meaning it is very difficult and 5 meaning it is very simple, the average rating was 2.89. These scores can be seen in figure 11. The lowest and most popular score was 2, which was given by four out of nine people. When asked why they chose the rating that they did, staff members stated that green procurement was not a necessity, that it needed more publicity, and that there was a lack of

understanding and help when it came to implementing the Environmental Procurement Policy, especially with small companies. One responder stated that issues included “the limited opportunity to influence commissioners early enough to ensure EPP is not an afterthought, the erroneous assumption that observing and promoting EPP is too expensive, traditional activities remain in place for up to 5 years.”

Figure 11: Croydon Council Staff Member’s Ratings of the Difficulty of Implementing the Environmental Procurement Policy



Half of the surveyed staff members thought that the council should enforce the policy more, 30% said it was fine as is, and 20% did not know. Staff members who felt the policy should be enforced more did not comment whether they felt that policy enforcement should be stricter, more vigorous, or more frequent. One person did not answer this question. When asked if they would like more help and guidance in the Croydon Council regarding green

procurement, eight said yes and one person did not answer. When asked what additional guidance would be helpful, survey participants requested a booklet with guidance, a front page link on the intranet, and more information as to what is helpful for each type of purchase. 73% of survey participants said a one-stop green procurement and green product and vendor guide would be helpful. The other 27% said that the question did not apply to them. When asked for general suggestions about how to better implement green procurement in the Croydon Council, responders mentioned small-scale, brief training sessions and including green procurement in Performance, Development, and Competency Schemes (PDCSs).

### **4.2.3 Practice of the Environmental Procurement Policy and Green Procurement**

Questions seven and nine of the survey ask about staff member's practice of the Environmental Procurement Policy. When purchasing goods and supplies on behalf of the Croydon Council, 55% of responders stated that they always follow the EPP, and 45% said they sometimes follow the EPP. Only two people surveyed reported purchasing green goods and services in the 2009-2010 fiscal year. One responder purchases from Office Depot and Cap Gemini, and one responder stated that there were too many suppliers to list.

## **4.3 Leaders in Green Procurement**

Interviews and email correspondence with organizations recognized for their exemplary green procurement practices provided valuable insight into approaches that the council should take. The London Borough of Hackney, London Borough of Greenwich, London Fire Brigade, Transport for London, the Metropolitan Police Service, and Mapeley Estates each shared with the team advice and guidance specific to the areas of green procurement of which they surpass other institutions in. The results following examine key contributors to these organizations' success in green procurement.

### **4.3.1 The London Borough of Hackney**

The London Borough of Hackney was one of only two boroughs to receive a gold status in the Mayor of London's Green Procurement Code (M. Robson, personal communication, March 30, 2010).

Robson based Hackney Council's success on its procurement strategies such as their sustainable model, the "3 E's: Economy, Employment, and Equalities", their Procurement Impact Assessment (PRIMAS) tool, implementing multiple champions, and training for their procurement staff. The procurement staff applies the "3 E's" with every contract and looks to improve its local economy, encourage contractors and suppliers to use local employment, and allow equality when choosing between local and foreign vendors of green products.

The PRIMAS tool is a questionnaire that staff uses to assess the environmental impacts in every stage of Hackney's contracts. Allow they have found this tool to be very effective, it can be time consuming. These questions cover Hackney's "3 E's", health, and safety concerns.

Hackney excels in both implementing champions and having training for their procurement staff. They have multiple champions, who have been selected from the procurement staff for their commitment to sustainability, one for each department within the Council. Also, throughout the year, the Hackney Council asks London Remade to come and teach seminars to the champions and other procurement staff. Programs such as sustainability and contract management have helped Hackney in their green procurement efforts, leading to their gold status.

Hackney's largest environmental practices include E-procurement, teleworking, having grouped printers, and clearly stated Key Performance Indicators (KPIs). Two years ago, Hackney implemented a practice to eliminate the paper work of invoices and contracts between suppliers and the Hackney Council. This was done through E-procurement. Today, all of Hackney's invoices are scanned or electronic and about 75% of their suppliers use E-procurement. The staff is waiting on a new technology so that tendering can also be done electronically and they hope to be able to limit borough purchasing to suppliers that only use E-procurement.

The council encourages teleworking, or telecommuting. Teleworking is working from home through emails and telephone. The extension of this on a larger scale could dramatically reduce the council's emissions levels by reducing the need of many inner office technologies such as computers, fax machines, and printers. There are drawbacks to teleworking, like not knowing if the employee working at home is using environmentally friendly products or if the

employee will be producing more emissions by working from home than by working at the office. Even with these concerns, the Hackney Council believes the benefits of teleworking will outweigh the drawbacks.

The procurement staff is pushing for the removal of any non-networked printers at individual workstations. This will lower the amount spent on printer toner, which is currently a substantial cost. Ultimately, Michael Robson and his staff plan to have grouped, network printers for each of the departments. Presently, the council has about 120 printers for 4,000 employees and feels that those numbers can be reduced without loss of functionality or efficiency.

KPIs are an inexpensive technique used in all of Hackney's green procurement contracts. KPIs are measurable targets within a contract that allow an organization to monitor suppliers throughout the procurement process. With the use of these Key Performance Indicators, the council has been able to learn from each contract and properly change their KPIs to strive for higher goals.

A key to Hackney's success in green procurement is the cataloguing of their products. They have created a brochure that contains goods and preferable items to purchase. This makes it easy for procurement officers of the borough to identify the best items that can be purchased. Having this brochure with several green options allows the borough to control what is being purchased, while also giving individual officers the freedom to choose their own products.

The effects of the delivery of green items are often overlooked. Most businesses believe that having one large weekly delivery by a larger truck will cause lower emissions because of the reduced frequency of the deliveries. The London Borough of Hackney has taken the approach of receiving multiple small deliveries throughout the week from smaller trucks; this in turn has a lower impact on the environment because the carbon emissions of these vehicles are much lower than those of the larger delivery trucks.

The London Borough of Hackney has noticed some changes in their policy due to the recession. Within the next few years, the borough hopes to reduce £20 million of the council's spending due to budget cuts. This reduction is hoped to be achieved without giving up quality.

Public services are a focal point where spending needs to be directed. The need to go green is always a concern, but it cannot be at the expense of citizens of the borough. Through these economic hardships, the borough has continued to remain one of the top three in the nation for efficiency savings over the past three years and hopes to continue to be a leader in this field.

With every new process, there are drawbacks. For Hackney and most organizations, cost is the most important factor. For example, Hackney is in the process of building their new Service Center, which costs them £50,000,000, and trying to achieve an “Excellent” or “Very Good” status from the Building Research Establishment Environmental Assessment Method (BREEAM) will cost them even more. Also, trying to meet BREEAM standards means extra work for the procurement team. Another drawback is that suppliers dislike their lack of control and slow process of PRIMAS tool. These and other drawbacks could lead to reluctance to work with Hackney.

There is always concern that suppliers may not be using environmentally effective strategies in their every day practices. Hackney plans to assess the total carbon footprint of their suppliers in order to associate themselves with the greenest suppliers. Though this could be costly upfront, in return the borough will gain an understanding of which suppliers are making the best effort to be green.

The London Borough of Hackney has identified several ways to continue to improve their score for the Mayor of London’s Green Procurement Code. The council plans to scrutinize all council spending throughout the year by continually updating their records. In doing so, the council will be able to identify where the funds are going and to prepare a better budget for upcoming years. Continued examination of spending simplifies accounting at the end of the fiscal year by keeping all information in one place. This is particularly useful when filling out the application for the Mayor of London’s Green Procurement Code.

The London Borough of Hackney has outlined carbon reduction, cost reduction, and energy reduction as three main goals for the future. Hackney is focused on reducing the overall running cost of the entire borough.

### 4.3.2 The London Borough of Greenwich

The London Borough of Greenwich received a gold status in the Mayor of London's Green Procurement Code, was shortlisted for the "People" category, and was highly commended for the "Policy, Strategy, and Communication" category of the code. Interviewing Peter Salvage, Greener Greenwich Coordinator, the team was able to gain the necessary information for why the Greenwich Council was so successful (P. Salvage, personal communication, April 8, 2010).

A major reason for Greenwich's success was the implementation of the Greener Greenwich Task Force (GGTF) in 2006. Before that year, Greenwich had little success in green procurement. The team was created, along with a procurement policy, to focus on green issues, coordinate green topics, and to push for a more sustainable council. The GGTF has 14 members that overlook every department in the council except one, Children's Services. The GGTF has not set any specific targets for procurement, but has put into place global targets such as their "10 by '10" target which aims to reduce carbon emissions by 10% by 2010. The reason for not setting specific targets is that throughout the year, their procurement needs may change, leading to continually changing targets.

Peter Salvage credits Greenwich's current procurement success to the adoption of strategies and procedures developed in other boroughs. For example, Camden Council developed a toolkit for Pre Qualifying Questions (PQQ) and the London Borough of Lewisham developed a set of sustainable practices with the help from London Remade. The GGTF took these approaches and restructured them to better fit the Greenwich Council. By seeing what has worked well from other council's policies and practices, Greenwich has been able to avoid any setbacks or failures. Also, the Greenwich Council has effectively used Salix<sup>1</sup>; a government funded non-profit organization. The Salix Energy Efficient Loans (SEELS) helped promote the purchasing of energy efficient products by loaning organizations money to purchase items with

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<sup>1</sup> Salix is an organization which provides the Salix Energy Efficient Loans (SEELS) program to benefit schools, hospitals and local authorities. This program will save £244m on reduced energy bills. The program plans to install in these institutions upgrades in lighting, heating and insulation while exploring combined heat and power systems with the possibility of improving IT systems. Estimated savings of 95,000 tonnes of CO<sub>2</sub> annually and throughout the lifetime of the project, an estimated savings of 1.5m tonnes of CO<sub>2</sub> (Salix Financial, 2010).

no interest in return (Salix Financial, 2010). This program has resulted in great dividends. This allows the Greenwich Council to implement energy efficiency into their contracts in light of cutbacks due to the economic recession.

Promoting the sustainable strategy within the council is a key factor. Salvage felt that when implementing a new strategy or policy, like green procurement, the organization needs strong promotion. The GGTF promoted the sustainable strategy via the intranet with its procurement policy as one of its appendices. When dealing with suppliers, they oversee the contract process to make sure the sustainable requirements are met. Over the past 5 years, the price between green and non-green products has narrowed, resulting in a change in suppliers' views towards the use of eco-friendly products. These suppliers are willing to meet the needs of organizations' sustainable policies to remain competitive.

### **4.3.3 London Fire Brigade**

The London Fire Brigade received a gold status in the Mayor of London's Green Procurement Code and won the award for the "Procurement Process" category of the Mayor of London's Green Procurement Code. The team's interview with Nicole Fletcher, Head of Sustainable Development, provided valuable insight into the organization's successful green procurement process (N. Fletcher, personal communication, April 8, 2010).

The London Fire Brigade uses many different suppliers within the different categories of procurement. Key suppliers of sustainable products and services included: Lyreco for stationary, Office Depot for paper supplies, and NPower & Scottsch and Southern for electricity. AssetCo, the biggest contract of London Fire Brigade, provides operational support services (AssetCo, 2009) and has developed its own Environmental Management System (EMS) as a result of a LFB contractual requirement.

Nicole Fletcher considers the EMS of the London Fire Brigade's Procurement Department to be the biggest contributor to their success in green procurement. The system oversees a wide scope of activity in the Procurement Department, which provides advice and guidance to procurement officers and staff. London Fire Brigade's environmental impacts are analyzed through this EMS. Ms. Fletcher stated that a strong base framework, that supports the procurement process, ensures that the organization has support for its procurement. A central

procurement department was found to be a key constituent in the procurement process and for London Fire Brigade's environmental management system. EMS is a system that has helped to improve the organization's processes to mainstream sustainable procurement. London Fire Brigade's EMS is designed in accordance with the ISO 14001 standard. An external auditor is brought in and evaluates London Fire Brigade's EMS every 9 months. The effects that the department's procurement has are measured against that of other Greater London Authority (GLA) organizations in London, like Transport for London. The London Fire Brigade and Transport for London work closely together to compare and contrast performance in different categories of green procurement.

According to Ms. Fletcher, there is prestige and healthy competitiveness between GLA organizations. The government and Mayor encourage responsible procurement in London due to its ideal location and population. The publicizing of these ideals pushes participation by local organizations. Additional assessments, aside from the Mayor of London's Green Procurement Code, also encourage organizations to implement sustainable procurement. Reports, results, and scrutiny from these assessments are made publicly available. This helps ensure program goals are pushed and sustainable procurement targets met. Senior level enforcement is instrumental to a successful green procurement process in an organization. Furthermore, case studies show staff that green procurement goals are relevant and realistic.

The Responsible Procurement Impact Assessment (RPIA) is a tool based on the Sustainable Procurement Task Force's prioritization methodology. Through the RPIA, procurers can assess environmental and socio-economic risks. A modified version of the RPIA has been developed for suppliers. The assessment helps London Fire Brigade to improve responsible procurement criteria in current contracts.

LFB has found it helpful to have a responsible procurement action plan be developed with suppliers to ensure that suppliers understand the organization's prioritization of sustainability. LFB monitors sustainable procurement within current contracts. The Responsible Procurement working group is a collaboration of individuals from different departments and groups that discuss potential improvements in sustainable procurement, contracts that need revisions and renewal, and outcomes of audits. The group consists of three sub groups; the

steering group, or top group that consists of major officers; the working group, or the middle group, that ensures environmental and sustainable commitments are on target; and the London Fire Brigade group which consist of the organization's four biggest spending departments: procurement, IT, building, and training.

According to Nicole Fletcher, the recession has had little effect on the London Fire Brigade's green procurement policy. Suppliers are eager to do business with public sector organizations due to their financial stability. The procurement requirements are not weakened, but may take longer to implement in the organization as spending on items is reduced.

The London Fire Brigade has built green procurement into officers' performance and development plans. The procurement manager's performance objectives can include addressing sustainability in major contracts. Staff members' performance objectives related to responsible procurement vary depending upon the individual's role within the organization.

Green champions in the organization are not part of the Responsible Procurement Working Group; rather they are employees that volunteer to encourage involvement of staff in making environmental sustainability habit. Employees that serve as green champions at LFB are staff members who are interested in environmental issues. LFB encourages green champions to speak with their co-workers to get involved in environmental activities such as Walk London. For example, a green champion may encourage employees to turn off their computers before leaving work for home. The champions try to mainstream procurement into small practices so it can result in a large return.

#### **4.3.4 Transport for London**

The team interviewed Andrew Robb and Tim Ruddin from Transport for London (TfL). Mr. Robb and Mr. Ruddin oversee responsible procurement within the organization (A. Robb & T. Ruddin, personal communication, April 8, 2010). They cited good leadership, good supplier relations, and support and awareness among staff members as key factors to their success.

Transport for London is a functional body in the Greater London Authority (GLA), so their leadership and direction come directly from the Mayor. One of the Mayor's main objectives is sustainability and green procurement, and this priority is passed down to TfL. It is partially because of this leadership that TfL is so successful in green procurement. This

leadership drive also means that green procurement is not a new concept for TfL. The organization has approximately two years worth of tools and templates to aid staff. Furthermore, questions and development plans have already been tailored to key suppliers.

Many of Transport for London's Key Performance Indicators (KPIs) are derived directly from Mayoral Strategies, which include environmental goals such as waste reduction and lower carbon emissions. From these targets, strategy documents are created for the GLA which clearly state goals for the five organizations involved. The functional body of Transport for London creates KPIs from these documents. TfL produces an environmental report containing KPIs related to the environment. These KPIs are used to create internal KPIs specific for different areas and projects within the organization. For example, KPIs for departments responsible for public buses might include lower NOx and SOx emissions and lower air pollution. The procurement team reviews important contracts and looks for related KPIs. These KPIs must be reasonable given the size of the supplier and contract. Procurement related KPIs that are integrated into contracts include increasing the amount of recycled material in a product, and lowered emissions.

Transport for London's suppliers are aware of the organization's lead in green procurement. The size of the organization, as well as the fact that it is in the public sector, results in a large annual spending, and therefore substantial influence over the market. With the current economic state of the UK, suppliers are eager for business and often take initiatives to differentiate themselves from their competitors in an attempt to gain TfL's business.

The recession has had little or no impact on green procurement at TfL. The need for and will to purchase green items is still present, and focusing on Value for Money ensures that there is often no added cost. The need to procure cost efficient items and services has increased due to the economy, and this also leads to increased need for items to be fuel efficient and to use less costly resources. This provides another incentive for companies to purchase green products and services.

Prioritization is an important tool used by TfL when choosing which environmental criteria to put into which contracts. TfL implements environmental criteria into contracts that have high costs, high influence, and high opportunity. Like many organizations, TfL has top

suppliers who account for the majority of their annual spending. These suppliers become the top priority for green procurement initiatives. Contracts that have more potential suppliers are also good places to insert environmental criteria, as this is able to influence the market. This results in competition between different suppliers and can even result in suppliers going above and beyond what is specified in the contract. Finally, some contracts have more opportunities for the inclusion environmental criteria than others. These high opportunity contracts are often for products and services where green alternatives are abundant. For instance, furniture contracts offer easy opportunities to specify recycled material. These criteria are put into a matrix, which is used by procurement staff when writing and assigning contracts.

Another important tool is the Supplier Relations Management Programme, which creates individual development plans for different suppliers. At the top level, directors and senior managers meet with suppliers once or twice a year to review all contracts and progress. TfL also has a primary contact for each supplier with whom they meet approximately once a month. This results in a more personal relationship with vendors. Finally, TfL also has a liaison working on each project. This allows TfL to discuss issues, such as suppliers' reluctance to use materials such as sand made from recycled glass.

"Innovation Workshops" allow TfL staff members to learn from suppliers. At these workshops, suppliers propose ideas and share these with senior management. This provides a peer review service where vendors work together to share best practice, such as faster ways to recycle road materials and using local storage and distribution to reduce travel. Vendors also discuss implications of these practices, including potential risk, costs, and land use.

Lunchtime seminars are another popular place for discussion. These occur about every three months, and all of the procurement staff members in TfL are invited. A supplier speaks about best practice, and then a partnership organization, such as the Mayor of London's Green Procurement Code, discusses issues. Finally, an internal speaker relates it all back to the organization. These speeches are followed by question and answer sessions. The success stories and internal support provide encouragement and add credibility to the issue. Approximately 30 to 50 people attend, and the large numbers allow for networking and easy information exchange among peers.

One of the biggest challenges cited by Transport for London is getting information to the right people at the right times. Innovation Workshops and lunchtime seminars aid in this. Although face-to-face interaction is always best, this is not always possible. The intranet and team meetings are great places to share knowledge. Procurement staff members are aware of senior level support and they have tools, guidelines, and KPIs readily available. Procurement staff members also attend a mandatory one day training module, as well as several hour-long online modules. Staff members are encouraged to “think green”, and TfL provides awards for “little” things, like recycling. Overall, TfL is successful in green procurement due to high level management, great relationships with suppliers, and large involvement and awareness of staff.

#### **4.3.5 Metropolitan Police Service**

The team gathered valuable information about the Metropolitan Police Service’s green procurement policies from email correspondence with Fay Davis, the Supplier Diversity and Environmental Manager (F. Davis, Personal Communication, April 15, 2010). The Metropolitan Police Service (MPS) received the Mayor of London’s Green Procurement Code award for “Policy, Strategy, and Communication”. MPS’s environmental policy is publicized on their website and includes a section with procurement objectives. The policy builds on previous successes, such as using alternatively fueled vehicles and purchasing 100% renewable electricity. In addition to the policy and strategy, MPS produces a separate annual Environmental Report. The Environmental Report contains past accomplishments, and the policy contains future plans and targets. At the beginning of the fiscal year, the Environmental Management Programme lists objectives for the coming year. The Environmental Strategy Steering Group (ESSG) is made up of the objective owners, including the Director of Procurement Services. Twice a year, MPS holds briefing events for current and potential suppliers to discuss operational issues.

#### **4.3.6 Mapeley Estates Limited**

Mapeley Estates received the Mayor of London’s Green Procurement Code award for “People”. Through an email correspondence, the team was able to contact Tracy Young, Head of Procurement Staff, and gain knowledge about Mapeley’s staff, training, and behavioral

change (T. Young, Personal Communication, April 20, 2010). Mapeley's Environmental Working Group (EWG) meets monthly to discuss Mapeley's environmental objectives stated in their Environmental Policy. The meeting, which comprises of nine members, addresses an environmental agenda that includes interpreting new legislation to be implemented within their organization, reviewing Mapeley's environmental performance, recommending any possible strategies for improving their impacts, and identifying any training or awareness needs with regards to sustainability. The monthly meeting is run by Mapeley's Environmental Manager.

Throughout the year, Mapeley Estates holds sustainable procurement training for its staff members. Most of their training comes in two forms; an induction part for new members, which consists of a high level of sustainability training, and an online program from London Remade that outlines sustainable procurement. At the end of this training, questions are asked, which, if correctly answered, a certificate is given. Additional training is offered by Action Sustainability.

Mapeley Estates has been able to excel with behavioral change towards green procurement by having presentations which focus on the little changes that can help the bigger aspect of their environmental impacts. Around the office, Mapeley has implemented easy tasks such as shutting off meeting room lights when finished, fully turning off computers when not in use, having a communal recycling station, setting printers so that they always print double-sided by default, and having champions lead by example. Within Mapeley's supply chain, the organization does a thorough evaluation of their suppliers with environmental Pre-Qualifying Questions. They hope to also aid in the evaluation with the implementation of a carbon calculator to understand that carbon impact of the suppliers and allowing Mapeley to work with them to reduce CO<sub>2</sub> emissions.

## **V. Conclusions and Recommendations**

Through data collection, interviews, email correspondence, and background research, the team identified several improvements that could be made to Croydon's green procurement efforts. These recommendations can also be used for other organizations and businesses. The following chapter includes suggestions for the council's green procurement policy, publicity, staff training and tools, contract management, and other green procurement related topics.

### **5.1 Organizations Policies and Tools**

The Council should consider committing itself to green procurement from the top executives down to the rest of the council, implementing measurable objectives that can be monitored, restructuring its procurement staff so that there are clear champions to assist with all contracts in each of the council's departments, tracking the council's green procurement spending, and using other leading organization's resources to help restructure Croydon's current green procurement policies.

From correspondence with six of the leading organizations from the Mayor of London's Green Procurement Code, the team discovered one common factor stressed by all of the organizations. Each leader reiterated the need to have commitment from the top of the organization down through every department. Without the top executives being committed to implementing green procurement, the rest of the departments within the organization will not take the matter seriously and fail to apply its green procurement policies effectively. When upper executives are committed to green procurement practices, procurement staff can properly apply the policies throughout the departments within the councils. The Metropolitan Police Service has an Environmental Strategy Steering Group (ESSG) made up of employees responsible for each of the objectives in the environmental policy. These upper level employees have personal stake in the organization's green procurement practices. From the team's survey of employees within the Croydon Council, 50% felt that the council should enforce the Environmental Procurement Policy to encourage its use. The commitment would also encourage the procurement staff to push for new practices to help better the efforts of green procurement, thus allowing them to improve their status for the Mayor of London's Green

Procurement Code. Presently, only 55% of employees polled always follow the environmental policy when purchasing goods and services.

Establishing a central procurement team and having procurement “champions” will help carry out the procurement policies in each of the contracts made with Croydon. As stated in the survey, employees of the Croydon Council have mixed responses as to who to exactly contact for green procurement advice. A perfect example of who to contact is the Greener Greenwich Task Force (GGTF). The GGTF has clearly set and measurable objectives to help the Greenwich Council achieve its green procurement goals set during each year and assist the departments with all procurement needs. The Croydon Council could learn from this type of task force and try implementing their own, especially during their time of restructuring. In the Hackney Council, multiple champions have been identified and allocated to each of the departments within the council to oversee the procurement process. This ensures that every department is applying green procurement in their contracts and staff can go their department’s champion for help. A Councilor who is also a green procurement champion would be able to encourage staff members and prevent the affects of institutional inertia. As a result of the Councilor’s position within the organization, green procurement issues would be stressed at the top level and be pushed to the forefront.

Even with encouragement from the top-down and having a centralized procurement staff, applying green procurement successfully cannot occur without a clear policy. Croydon’s policy needs to include clearly set targets which ought to be updated on an annual basis. The policy should be short but accurately describe what the council should accomplish and how. The Metropolitan Police Service publishes an annual Environmental Management Programme that lists targets and objectives for the coming year. Croydon could consider implementing this technique.

As stated in the Background chapter, having scattered and complex procurement functions can cause unnecessary work. This leads to under resourced and over worked procurement staff. The ability to measure objectives set in the organization’s policies and contracts is vital for a successful procurement practice. Environmental procurement objectives could be set for all staff and ought to be included in their performance development and

competency scheme (PDCS). The PDCS works similarly to a job review and provides challenging, but realistic targets for staff to reach. Annual goals can be put into place that can improve upon the previous year's standards set by the organization through its procurement policy and, more importantly, in the organization's individual contracts with suppliers. This can be observed by setting clear Key Performance Indicators (KPIs). Transport for London is constantly updating and monitoring its performance against KPIs to ensure the organization is improving its green procurement efforts. If Croydon applies this same set of procedures, then not only can they improve their annual green procurement standards, but work closer with the suppliers to make sure the correct procurement steps are taken in every step of the contract development and implementation. The Hackney Council has adopted the PRIMAS (Procurement Impact Assessment) tool that allows them to monitor every contract so that their objectives are being met. This tool has been their most successful step in green procurement. Measuring these objectives can also lead to working with the supplier in discovering new green procurement strategies or products.

It is important for an organization to be able to properly document its green procurement spending. The Croydon Council needs to improve the quality, inclusiveness, and timeliness of its data collection on green purchases. With these data and an Environmental Management System (EMS) tool similar to that of the London Fire Brigade, Croydon could assess the impact of its purchases on the environment. Using EMS can help determine where better to allocate the council's funds. The London Fire Brigade annually assesses their purchases with EMS, prioritizes its sustainability risks, and integrates them into their Forward Plan of Contracts to understand where the money needs to be spent.

London Remade is a great resource for promoting green procurement. The group provides information needed to excel in the code and offers suggestions to improve an organization's policies. In 2006, the Greenwich Council struggled to apply its sustainability policies and strategies effectively. With the help of London Remade, Greenwich was able to create their Task Force and apply sustainable practices including green procurement. To become a leading organization in procurement, Greenwich adopted approaches used by Camden Council and Lewisham Council. Croydon could follow a similar strategy and adopt

policies and approaches that other organizations, especially other boroughs, have found to be effective. Such a strategy avoids duplication of failed strategies and helps to minimize problems associated with the development of untested practices and policies.

## **5.2 Publicizing and Reviewing the Policy**

The Croydon Council's green procurement progress could be reviewed by additional experts in the field; publicized through more print sources, such as newspapers; promoted at events, similar to Transport for London's "Innovation Workshops"; and compared with other organizations. These processes could be outlined in a communications plan.

The Croydon Council participates in the Mayor of London's Green Procurement Code and its green procurement policy and progress are reviewed yearly by London Remade. The organization would also benefit from revisions by third parties, such as Groundwork, a group of charities that help organizations become greener, which is used as a to measure its by Greenwich. Not only do these reviews and audits provide suggestions and identify weaknesses, they also identify improvements.

These reviews and audits can be compared with other organizations through knowledge sharing exchanges. Many organizations that have been successful in green procurement report sharing and learning from other organizations as contributors to their success. Transport for London and the London Fire Brigade work regularly with each other and the other members of the Greater London Authority. Similarly, the London Borough of Greenwich reviews other boroughs policies and looks for both successes and for things to avoid, such as the failed practices of other organizations.

Staff members should be made aware of even minor improvements. These improvements, as well as additional strategies, can be presented at monthly procurement board meetings and at lunchtime seminars, similar to those held by Transport for London. At these seminars, a supplier speaker and a member of a partnership organization present best practice. This is followed by a speech by a member of the host organization, in this case TfL, who relates everything back to the host organization. The seminar ends with a question and answer segment. Lunchtime seminars are held every three months and attendance is usually 30-50 people. The Croydon Council currently uses lunchtime seminars, but would benefit from

implementing more of these seminars and using a structure similar to Transport for London. By discussing improvements at these seminars, and by showing success stories of other organizations, the Croydon Council can demonstrate that green procurement is feasible, and that staff members' efforts are appreciated.

The Croydon Council publicizes their green procurement achievements on the internet. The council would also benefit from additional newspaper publicity, attending events, and speaking at conferences advocating green procurement. Transport for London and the Metropolitan Police Service, organizations recognized for their green procurement; publish green procurement progress annually in their "Environmental Reports". TfL also uses websites and print media to reach small suppliers, and gives green procurement speeches at supplier events. The London Borough of Greenwich has also been noted for their promotion of green procurement at events, and for their ability to seek and respond to supplier feedback.

The council's green procurement strategy and goals should not only be announced to the public, but should also be publicized to suppliers. One way to do this is through "Innovation Workshops", such as those held by TfL. At these workshops, key suppliers propose ideas, which are shared with senior managers and peers. This allows for peer review between diverse businesses. This benefits TfL because they are able to learn from suppliers and emphasize their responsible procurement policy, and it benefits suppliers who are able to strengthen their ideas and get different viewpoints. TfL also encourages its suppliers to join partner organizations, such as the Mayor of London's Green Procurement Code. Through these and other programs, 57% of surveyed suppliers reported being aware of their roles and responsibilities to the organization. Similarly, the Lambeth Council connects with suppliers through a program called Supply Lambeth, which provides information on contracts, workshops, and networking sessions. The Croydon Council would benefit from hosting seminars with suppliers on an annual or biannual basis and inviting top suppliers, such as Office Depot and Interserve.

### **5.3 Staff Tools and Training**

The training conducted and tools available for the procurement staff play an integral role in the success of an organization's green procurement efforts. To improve green procurement within the Croydon Council several steps must be taken: training ought to be

utilized by procurement staff; tools could be used to aid staff in the procurement process; and case studies of organizations identified as leaders in green procurement should be reviewed.

The Croydon Council should use training made available by organizations specializing in green procurement to aid staff members. Currently, over 90% of the employees within the Croydon Council polled in the survey are aware of the environmental policy, but 80% feel there should be more information and guidance. Although the council already has training conducted with London Remade, additional, longer training sessions are not being utilized. The Chartered Institute of Purchasing & Supply (CIPS), the Institute of Environmental Management Assessment (IEMA), and additional training from London Remade would be beneficial to the council's procurement personnel. A weakness the team identified in the council, through progress review part 1 of the Mayor of London's Green Procurement Code, was the lack of training procurement staff were receiving. The IEMA, CIPS, and London Remade all provide coaching programs that can be tailored to the entire council's procurement staff, and their varying levels of knowledge regarding green procurement. The Croydon Council could require procurement staff to attend IEMA's full day training session "Continuing Professional Development," which covers multiple areas of green procurement. This would help staff to further understand their responsibilities under environmental legislations like the recently issued Carbon Reduction Commitment. The London Borough of Hackney cited the sustainability and contract management presentations by London Remade as very helpful to its procurement staff. The council could also require staff to participate in informal seminars that CIPS holds. These seminars generate discussion amongst staff on relevant issues regarding sustainable procurement.

Transport for London recommends the use of an online learning module. The council could use an electronic tool like this to show its employees the importance of sustainable purchasing and the responsibility of the council. The council ought to open these and other training sessions to its entire staff, as opposed to procurement staff only. This would result in a basic level of understanding of sustainable procurement across all departments.

The European Union recognizes the Federation of Swedish County Council for having a highly effective training policy. Their training consists of legal and environmental requirements,

tools for green procurement, evaluation of suppliers' answers to environmental requirements, an environmental management system, education of the role of the procurement officer, and examples of best practice of the Swedish County Councils. The council should incorporate these aspects in its training for staff by having expert organizations include it in their training programs.

Two predominant factors inhibiting the Croydon Council's green procurement efforts were lack of understanding of green economics and lack of employee involvement. The Croydon Council's Environmental Procurement Policy should require staff to examine Life Cycle Analysis (LCA). LCA outlines the collective costs of a product from its design to its disposal. This would show procurement staff how green products and services result in savings when compared to traditional, non-green options. Furthermore, this tool would clarify cost misconceptions.

Through the team's survey, all of the employees understood how to implement the environmental policy but 44% felt that it was difficult to implement. In order to increase employee involvement, the purpose and benefits of sustainable procurement ought to be communicated to Croydon's entire council. Training sessions and informal workshops noted earlier can be used to reiterate that green procurement is a collective effort that affects everyone. Placing environmental objectives in staff's performance reviews would also encourage implementation of green procurement in the council's everyday business choices.

London Fire Brigade has been recognized for its excellent procurement process and has a centralized internal responsible procurement (RP) working group that shares good practice and contract information across departments. The Croydon Council could have a procurement network for sharing green purchasing information.

The London Borough of Hackney recommended making a document of environmental products to aid procurement staff. For the Croydon Council, 73% of employees felt a procurement guide would be helpful in making procurement decisions easier. The team created a catalogue of environmentally-friendly products as well as products to avoid (see appendix R). This will aid procurement staff in deciding what to purchase, while still giving them options,

resulting in controlled choices. This guide first has procurement staff evaluate the need for the product or service.

## **5.4 The Procurement Process**

### **5.4.1 Writing the Contract**

The European Union procurement laws require all contracts to be transparent and nondiscriminatory. They also prohibit organizations from introducing irrelevant pre-qualifications into contracts. The Croydon Council must carefully choose environmental sustainability qualifications in order to follow these laws. Prioritization should be used when determining which criteria to put in which contracts. Transport for London looks for contracts with high spending, extensive influence on the green market, and easy opportunities to implement environmental criteria. Contracts that are able to influence the market are those that have more than one potential supplier. Implementing environmental criteria into these contracts result in competition between suppliers to provide the high quality and low cost environmentally friendly products and services. Larger companies have greater abilities to implement green technologies than smaller ones, and certain environmental criteria can be applied more easily to some purchases than others. While timber restrictions, such as only using FSC timber, apply to some furniture contracts, they don't apply to IT contracts, which instead could have energy use restrictions. The London Borough of Hackney also recommends the PRIMAS tool, a contract writing tool.

### **5.4.2 Choosing a Vendor**

One of the first steps in choosing a vendor is reviewing the Pre Qualifying Questions (PQQ). In the Croydon Council, contract decisions are based 60% on cost, and 40% on quality, which includes sustainability and environmental impacts. The council should develop additional PQQs regarding green procurement that are specific to certain purchases. For example, paper contracts ought to have questions regarding the source of the material and FSC certifications, questions regarding chlorine use for bleaching, and questions regarding the percent of recycled material used. These PQQs could be pre-written for major spending areas and common purchases, then made available to staff via the intranet.

In the future, the council should integrate risk assessment, such as the assessment used in its Street Lighting and Energy Procurement contracts or the Sustainable Development Impact Assessment (SDIA), in all contracts. The London Fire Brigade uses a SDIA to evaluate potential suppliers in all contracts. Procurement staff members score suppliers on risks according to the Mayor's Seven Responsible Procurement (RP) themes. These themes are: "encouraging a diverse base of suppliers, promoting fair employment practices, promoting workforce welfare, addressing strategic labor needs and enabling training, community benefits, ethical sourcing practices, and promoting greater environmental sustainability" (Greater London Authority, 2008). The final theme relates most closely to green procurement.

A sustainable risk matrix could be developed to aid in analysis of social, economic, and environmental risks. The council plans to include whole life costing in this risk analysis. One example of a risk assessment is that used by the London Borough of Hackney, which approaches each contract over £25,000, through a procurement risk assessment of six steps; rethink, eliminate, reduce, re-use, recycle, and dispose or end of life management.

The Croydon Council should carefully review all areas of the environment that might be affected by major purchases. These may include carbon emissions, emissions of other air pollutants or of water or soil pollutants, deforestation, and use of natural resources. When reviewing these areas, it is important that the council look at the entire supply chain. The council should assess the level of each risk and look for ways to lessen the effects. These include looking for suppliers who use certified timber, recycled materials, or clean energy. This assessment could be documented, made available to all employees, and kept for future reference.

### **5.4.3 For Existing Contracts**

The Croydon Council should use expenditure analysis, consider product category, and look at supplier size to identify its key suppliers. The council could then develop a Supplier Relation Management Program, similar to that used by Transport for London, to provide personal advice and guidance to these suppliers. In this program, the organization has three levels of contact with the supplier. At the top level, a director works with another director level contact or senior officer in the supplier company. They meet once or twice a year and make

sure to discuss green procurement issues. At the middle level, a primary contact within the supplier company works closely with the organization to provide a more personal relationship. These meetings occur approximately once a month. Finally, each project being undertaken with the supplier has a liaison working with the organization. This system allows for director level involvement, which many organizations cite as a key to success, as well as personal interaction with each supplier. This may not work given the current restructure. The Croydon Council could produce the same effect using one liaison with each supplier and making sure that liaison met regularly with the supplier to address the sustainability issues of each project.

Furthermore, suppliers should be required to report sustainability activities regularly and progress should be reviewed. In order to better understand the carbon impact of their suppliers, Croydon could implement a carbon calculator, similar to the one used by Mapeley Estates. Consequences for not meeting pre-arranged criteria should be written into the contract and enforced. These consequences may include fines or termination of the contract.

## **5.5 The Current Economy**

Like many countries, Great Britain is currently in a recession. This may lead to a lack of funding for green procurement. Organizations are often more focused on the cost of a product than on its environmental impact. In order to properly implement green procurement in the current economy, organizations should assess the need for a product and utilize whole life costing. If the product can be rented, shared with another department or organization, or bought secondhand, then the organization can save money while helping the environment. Whole life costing considers costs aside from upfront cost. For each purchase, the Croydon Council should review shipping costs, energy costs, maintenance costs, disposal or recycling costs, and how long the product will last. In several cases, green products can result in savings. For example, energy-efficient light bulbs lower energy costs and need to be replaced less often than non-green alternatives. Furthermore, many of the professionals interviewed cite the CRC Energy Efficiency Scheme (formerly the Carbon Reduction Commitment) as a motivating factor. This act makes organizations purchase allowances for each tonne of CO<sub>2</sub> they emit (Department of Energy and Climate Change, 2010b). Therefore, buying green products that reduce carbon emissions saves the organization money.

Both Transport for London and the London Fire Brigade emphasized benefits of the current economy on green procurement. As the recession continues, prices of products and services become more and more similar and suppliers look for other ways to differentiate themselves and their products. Suppliers are desperate for business and are willing to work hard to please buyers. Transport for London mentioned an instance where a supplier went above and beyond what they had asked for and went carbon neutral. They also cited that suppliers are often eager to work with government organizations, such as themselves and the Croydon Council, because they are seen as economically stable. The Croydon Council should keep this supplier enthusiasm in mind when making purchases and should be sure that suppliers are aware of their green procurement goals.

## **5.6 Legislation**

The council should consider outlining environmental legislation within its Environmental Procurement Policy. The CRC Energy Efficiency Scheme, formerly known as the Carbon Reduction Commitment, is a carbon reduction and energy efficiency strategy designed to meet environmental targets mapped out in the Climate Change Act 2008. The act serves as “the world’s first long-term legally binding framework to tackle the dangers of climate change” (Department of energy and Climate Change, 2010a). The council officially commits itself to improving its green procurement efforts because of this legislation. Products that are energy efficient could be purchased to comply with environmental objectives. Additionally, the EU has several environmental standards of waste, air pollution, water, and climate change that the council should highlight in its policies. Incorporating these standards would result in additional pressure for the organization to make environmentally sustainable purchases. Combining legislation with green procurement conveys to an organization’s employees that it is bound and determined to meet environmental sustainability objectives.

## **5.7 Other Suggestions**

E-Procurement and teleworking are possible strategies that can aid Croydon in their green procurement efforts. The Croydon Council is already implementing a flex work schedule, where all employees are not in the office at the same time. Teleworking could be added to this initiative to help lower building emissions. Currently, the council allows employees to choose

their own working hours, as long as they are in the work place between the core hours of 10 AM and 2 PM. This ensures that the office will not be over-crowded, and that all office machines and equipment won't be operating at all times. By utilizing teleworking within the council, fewer machines will need to be in operation.

Lowering the amount of employees working in the office will in turn lower emissions caused by commuting. Other transportation initiatives that can be looked into by the council include promoting other means of transportation such as riding bicycles and using public transportation. Croydon could purchase, or subsidize the cost of, public transportation passes. This would lower emissions, lessen the traffic flow, and reduce wear on roads within Croydon.

The Borough of Hackney has reported E-procurement as the procurement strategy that they believe is making the biggest impact internally. Although the Croydon Council uses E-procurement, its adaptation on a larger scale could benefit the borough greatly. By switching all of the paper files over to electronic files, thousands of bundles of paper and toner cartridges can be saved. Having suppliers agree to this would be an important step for the borough to take. Once the suppliers are willing to move to electronic files, older contracts and files can begin to be scanned to the computer databases. By having these files stored on an electric server, they will take up much less storage room and allow for downsizing of offices in areas.

Croydon has already moved to using group printers opposed to individual printers in their council. However, there are still individuals who are using their own printers instead the group printers. Toner cartridges are one of the priciest purchases for the borough, and buying them for personal printers is a process that could easily be avoided. This would save the borough thousands of pounds. To eliminate individual printer use, Croydon must ensure that the higher level executives are abiding by these rules. In Hackney, higher level executives were still using individual printers, and this may also be the case in Croydon.

## **5.8 Conclusions Summary**

There are several steps that can be taken by the Croydon Council to improve their green procurement practices. Green procurement objectives should be included in staff members PDCS and upper-level executives should have additional green procurement responsibilities. The council's green procurement initiatives should be publicized through print sources, such as

newspapers, and through speeches at green procurement seminars. The policy should also be reviewed by additional third-party auditors, such as Groundworks. A network of procurement officers could be created across all departments, and interactive training could be utilized with all procurement staff. For contracts, environmental risk should play a larger role in decision making and specific PQQs could be created for large spend areas; such as timber, office supplies, and cleaning products. Teleworking and public transportation could be encouraged, and E-procurement should be further utilized.

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## Glossary

BREEAM – Building Research Establishment Environmental Assessment Method

CIPS – Chartered Institute of Purchasing & Supply

CPD – Central Procurement Directorate

CRC – Carbon Reduction Commitment

CSR 04 – Comprehensive Spending Review 2004

DECs – Display Energy Certificates

DEFRA – Department for Environment, Food, and Rural Affairs

EACCP – Environmental and Climate Change Partnership

EaST – Environmental and Sustainability Team

EIA – Environment Impact Assessment

EMAS – Eco-Management and Audit Scheme

EMS – Environmental Management System

EPP – Environmental Procurement Policy

ESSG – Environmental Strategy Steering Group

EU – European Union

FLO – Fairtrade Labeling Organization

FORS – Freight Operator Recognition Scheme

FSC – Forest Stewardship Council

FTF – Fair Trade Federation

GDP – Gross Domestic Product

GGTF – Green Greenwich Task Force

GLA – Greater London Authority

GPP – Green Public Procurement

I&DeA – Improvement and Development Agency

IEMA – Institute of Environmental Management Assessment

ISO – International Standard Organisation

IT – Information Technology

KLOE – Key Line of Enquiry  
KPIs – Key Performance Indicators  
LACMP – Local Authority Carbon Management Programme  
LCA – Life Cycle Analysis  
LDA – London Development Agency  
LFB – London Fire Brigade  
MoLGPC – Mayor of London’s Green Procurement Code  
MPS – Metropolitan Police Service  
NAPM – National Association of Paper Merchants  
NI – National Indicator  
OJEU – Official Journal of the European Union  
PDCS – Performance, Development, and Competency Schemes  
PEFC – Programme for the Endorsement of Forest Certification  
PFI – Private Finance Initiative  
PQQ – Pre Qualifying Questions  
PRAD – Performance Review and Development Plan  
PRIMAS – Procurement Impact Assessment  
RP – Responsible Procurement  
SDIA – Sustainable Development Impact Assessment  
SLAs – Service Level Agreements  
SMRP – Supplier Management Relationship Program  
SPTF – Sustainable Procurement Task Force  
TfL – Transport for London  
UK – United Kingdom  
UN – United Nations  
WFTO – World Federation Trade Organization

# Appendices

## Appendix A: Background on London Borough of Croydon

The London Borough of Croydon was founded in 1965 by the Coulsdon and Purley Urban District (Croydon Council, 2010c). Croydon originated as a market town and became home to industrial factories, such as metal fabrication and charcoal production institutions, during the Industrial Age (Croydon Council, 2010c). The factories provided an increase in available jobs, which resulted in a rise in population. This led to increased sources of pollution such as airports, public railways, and car manufacturing (Croydon Council, 2010c).

The Croydon Council is broken into three main functions; the Executive, which consists of the Cabinet and Leader; the Committees, which consists of six non-executive committees; and the Scrutiny. The Leader and Cabinet are responsible for “shaping policies and plans and recommending them to the Council for approval” (Croydon Council, 2010a). The six non-executive committees are responsible for all decisions regarding, “planning, licensing, standards of behaviour and conduct for members and officers, staffing issues, tenders, property transactions, liaison with local utility companies and internal audit”(Croydon Council, 2010a). Finally, Scrutiny examines the entire council’s performance and ensures the well-being of the Croydon population (Croydon Council, 2010a).

In 2008, the Borough of Croydon had a population of 342,000 (Croydon Strategic Partnership, 2008). Croydon has the largest population of all the boroughs and has the largest percent of people between the ages of 1 and 19 (Croydon Strategic Partnership, 2008). The Croydon Council employs more than 10,500 staff members (Croydon Strategic Partnership, 2008). The Funding for the Croydon Council is supplied by the Band D Council Tax (Croydon Strategic Partnership, 2008). Currently Croydon’s Band D council Tax is ranked the 9<sup>th</sup> highest tax out of the 20 Boroughs, while still being below the Outer London Average (Croydon Strategic Partnership, 2008). The 2008-2009 financial summary showed that the Borough of Croydon had a revenue spending amount of £276.8m (Croydon Strategic Partnership, 2008). This funding was spent on areas such as Culture Sports & Safety, Street Scene & Waste Management, Housing Services, Younger Adults, Education, Children’s Social Service, Older

People, and Physical Disabilities & Sensory Impairment (Croydon Strategic Partnership, 2008). The revenue spending is a very important part of the Borough and can be seen in Figure 12. A breakdown of the Council's other spending can be seen in Table 3.

Figure 12: Croydon's Revenue Spending 2008/2009 (Croydon Strategic Partnership, 2008)

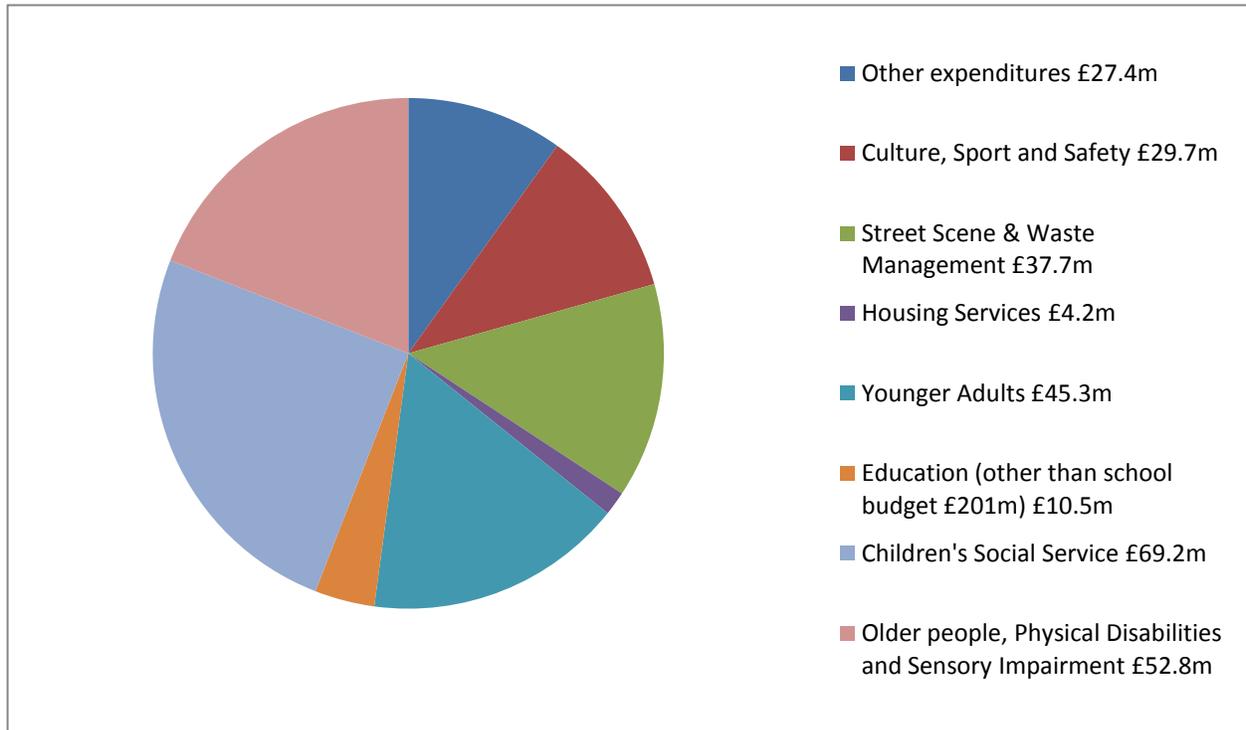


Table 3. Other Expenditures in Croydon’s 2008/2009 budget (Croydon Strategic Partnership, 2008)

<b>Other Expenditures</b>	<b>(£m)</b>	<b>%</b>
Concessionary Fares	3.6	13%
Regeneration and Infrastructure	4.6	17%
Planning and Building Control	2.8	10%
Customer Service	5.7	21%
Other (Central Services)	8.3	30%
Levies	2.4	9%
	<b>27.4</b>	<b>100%</b>

The council is committed to sustainable development, as shown in their Community Strategy, the main planning document for each of the council’s agencies (Croydon Council, 2010d). The Croydon Environment and Climate Change Partnership was formed in 2003 in order to employ environmental missions put forth in the Community Strategy. Our project will require us to work closely with the Environmental and Sustainability Team (EaST) of the Council.

The Environment and Sustainability Team of the Planning, Regeneration and Conservation (PRC) Department of the Croydon Council works to alleviate the borough’s environmental impact. A large contributor to this is green procurement. The implementation of green procurement is part of the mission of the Croydon Council, and is outlined in Croydon’s Environmental Procurement Policy (Croydon Council, 2010d). Through this policy, “the Council will help to conserve energy and resources, and reduce waste and pollution. Furthermore, through the Environmental Procurement Policy, the Council will contribute to greening the supply-chain by supporting, and participating in, the trade of more environmentally sustainable supplies, services, and works” (Croydon Council, 2002). In 2008-2009 fiscal year, the Council

diverted three times the waste from landfills than they did in 2004-2005 (Croydon Council, 2002).

## Appendix B: Evaluating Environmental Criteria and Environmental Targets in Kolding, Denmark

Survey for Office Suppliers of Kolding, Denmark (Plas & Erdmenger, 2000)

### Kolding environmental criteria for office furniture

In this context, office furniture are desks, bookshelves, conference tables, chairs, swivel chairs, computer tables and other items to be used in an office.

To assess the environmental impact of the product the following questions are asked. Questions must be answered with yes or no, and positive answers must be detailed.

#### Preliminary questions

- |   |     |    |
|---|-----|----|
| 1. Which country of origin does the wood come from?   |     |    |
| 2. Which kind of primary energy sources are used for electricity and heating?   |     |    |
| 3. Can the product in question, or part of it, comply with demands similar to the environmental demands of the Nordic Ecolabelling "Svanen" (Swan) or the EU eco-labelling? | YES | NO |

Questions No. 1 to 3 must be answered. If 3 is answered with yes, no further questions. If 3 is answered with No, please answer the following questions:

#### 1. General questions

- |   |     |    |
|---|-----|----|
| 1. Does the business have a policy of transport in the intention of reducing the impact of CO2 (e.g. by increasing load per truck, less transports, using alternative energy sources or forms of transportation)? | YES | NO |
| 2. Is the business certified according to ISO 14001 or EMAS?  | YES | NO |
| 3. Does the business prepare a yearly green account?  | YES | NO |
| 4. Does the business have a waste policy as to waste sorting, increased use of recycled materials, and reducing waste amounts?  | YES | NO |
| 5. Does the business comply with the environmental demands of the local authority?  | YES | NO |

#### 2. Questions regarding the environmental impact

- |   |     |    |
|---|-----|----|
| 1. Is the product made of renewable resources?  | YES | NO |
| 2. Are recycled materials part of the product?  | YES | NO |
| 3. Can the product be repaired, and will spare parts be available for a long time?  | YES | NO |
| 4. Can the product, or part of it, be recycled?   | YES | NO |
| 5. Can the product be separated into its single components?   | YES | NO |
| 6. Does the product have a long lifespan in comparison with similar products?   | YES | NO |
| 7. Can the product be cleaned easily with water and ordinary soap?  | YES | NO |
| 8. Does the wood used come from sustainable forestry complying with FSC guidelines (Forest Stewardship Council)?                                | YES | NO |
| 9. Is the product produced without any use of organic solvents?   | YES | NO |
| 10. Is the product produced without the use of heavy metal containing compounds?  | YES | NO |
| 11. Is the product produced without adding chemicals from the "List of Undesirable Substances" from the Danish Environmental Protection Agency? | YES | NO |
| 12. Is the product produced without the use of PVC containing plastics?   | YES | NO |
| 13. Are screws, plates and other metallic parts made without aluminium?   | YES | NO |
| 14. Are screws, plates and other metallic parts made without chrome?  | YES | NO |
| 15. Are screws, plates and other metallic parts made without nickel?  | YES | NO |

### 3. Questions regarding the packaging of the product

- |  |     |    |
|--|-----|----|
| 1. Is the packaging without chemicals from the "List of Undesirable Substances" from the Danish Environmental Protection Agency? | YES | NO |
| 2. The packaging is produced without the use of PVC containing plastics?   | YES | NO |
| 3. The product is delivered unpacked or with only minimal packing means?   | YES | NO |
| 4. The packaging is made of recycled or recyclable materials?  | YES | NO |

### 4. Assessing the environmental impact (only for purchasers' use)

The more questions answered with yes, the more environmentally friendly the product. Minimum requirements for a product to be regarded as environmentally compatible are answering the following questions with YES:

1. General questions: No. 4,
2. Questions on environmental impact: No. 6, 8, 10, 11 and 12
3. Questions as to package: No. 1 and 2

Selected Products and Targets for Purchase of Kolding, Denmark (Plas & Erdmenger, 2000)

Goods/ Products		Targets
Electronic Products	Computers	An institution jointly replacing more than 10% of its computers or undertaking purchases to a corresponding extent should take care that the computers purchased belong to the 10% of the least environmentally damaging brands in terms of production and that they operate at the lowest energy consumption standard available. Finally, it should be possible to dismantle the computers after use in order to recycle them / their materials.
	Printers	All printers are required to perform double-sided printing and should fulfil the state-of-the-art minimum performance demands for printers.
	Photocopiers	All photocopiers are required to use 100% recycled paper and should fulfil the state-of-the-art minimum performance demands for photocopiers.
Office supplies	In general	All office supplies have to be PVC-free. No organic solvents in office supplies.
	Paper	Paper and stationery should be unbleached and consist of 100% recycled paper. Paper for photocopiers unable to use 100% recycled paper has to contain at least 50% recycled fibres.
	Ring binders and magazine cassettes	At least 50% of ring binders and magazine cassettes have to be made of recycled cardboard.
	Toner	All toner cassettes have to be reused. All inkjet cassettes have to be reused.
Cables/ Pipes		All cables purchased have to be PVC-free. Purchasing PVC-free cables, however, should not considerably reduce the competitive power of the institution and may not lead to significant additional expenses. After January 1, 2005, however, all cables purchased have to be PVC-free.  All pipes purchased have to be PVC-free under the precondition that less environmentally damaging substitutes exist. Purchasing PVC-free pipes, however, should not considerably reduce the competitive power of the institution and may not lead to significant additional expenses. After January 1, 2005, however, all pipes purchased have to be PVC-free.
Transport	<ul style="list-style-type: none"> <li>• Purchase of means of transport (cars, trucks, electric cars, bicycles).</li> <li>• Fuel consumption and maintenance of the means of transport.</li> <li>• Transport associated with work, inspection and meeting activities.</li> <li>• Transport when on official journeys.</li> </ul>	<p>Specifically damaging means of transport are pointed out in order to achieve rapid effects.</p> <p>A survey of the environmental damage caused by the existing fleet should be conducted and the modal split during working hours should be ascertained. Furthermore, the survey should give an idea of which means of transport are used on official journeys. The survey should point out effort areas likely to produce significant environmental effects as a result of environmentally concerned purchasing.</p>
Building maintenance		No specific targets

Appendix C: Eco-labels (Rutherford, 2010)

# Product certification scheme examples

Meet criteria or equivalent



## Appendix D: Case Studies by London Remade of Exemplary Green Procurement Programs

London Remade, a governmental organization responsible for sustainable practices in the city of London, created several case studies based on exemplary organizations and governments within the city. The London Borough of Greenwich, a gold status winner of the Mayor of London's Green Procurement Code, sets an example for staff involvement in green procurement (Mayor of London's Green Procurement Code [MoLGPC], 2009e). The borough has a department called the "Green Greenwich Task Force" (GGTF) which oversees environmental processes and green procurement (MoLGPC, 2009e). Members of the GGTF are trained in the accredited Central Procurement Directorate (CPD) sustainable procurement course (MoLGPC, 2009e). This extensive training and knowledge of green procurement enables the department to efficiently communicate, implement, and successfully accomplish sustainability goals (MoLGPC, 2009e). The GGTF works closely with Strategic Sourcing Manager, who oversees procurement by all officers (MoLGPC, 2009e). This centralized procurement team acts as a green procurement liaison to the rest of the council (MoLGPC, 2009e). Aside from the GGTF and the Strategic Sourcing Manager, staff members within the council are also able to refer to service plans, all of which now include plans to minimize Greenwich's environmental impact (MoLGPC, 2009e).

The Mayor of London's Green Procurement Code (MoLGPC) website also provides a case study from the London Borough of Lewisham, detailing their outstanding green procurement policy (Mayor of London's Green Procurement Code [MoLGPC], 2009f). The council published "Green Guide to Procurement" in July of 2008, which outlines agreed upon sustainability goals (MoLGPC, 2009f). The Project Review Group is a team of staff that reviews purchases of over £20K and assess the impacts and sustainability of the purchase (MoLGPC, 2009f). The London Borough of Lewisham received a silver status in the Mayor of London's Green Procurement Code (MoLGPC, 2009f).

The London Fire Brigade, winner of the "Procurement Process" award from the Mayor of London's Green Procurement Code, uses a Sustainable Development Impact Assessment (SDIA) to evaluate and find suppliers that meet certain environmental criteria (Mayor of

London's Green Procurement Code, 2009g). The SDIA is used for all contracts (MoLGPC, 2009g). Procurement staff members score suppliers on different sustainability themes to determine which companies to use. "The SDIA reviews contract value; environmental or socioeconomic impact by product or service; current activity to reduce the impacts; LFB scope to improve; and reputational risk" (MoLGPC, 2009g).

The London Borough of Lambeth, a leader in supplier engagement, connects with suppliers through a program called Supply Lambeth 2009, which provides information on contracts and sustainability, and provides workshops and networking sessions (Mayor of London's Green Procurement Code, 2009h). Furthermore, they created a Key Supplier Network consisting of the top 30 suppliers. Lambeth won the "Engaging Suppliers" award in the Mayor of London's Green Procurement Code in 2009 (MoLGPC, 2009h).

Transport for London (TfL), known for their green procurement measurements and results, publishes a yearly Environmental Report and hosts workshops on prioritization and methodology to educate staff about green procurement (Mayor of London's Green Procurement Code [MoLGPC], 2009c). TfL also regularly compares its progress with other organizations. TfL won the "Measurements and Results" award in the Mayor of London's Green Procurement Code (MoLGPC, 2009c). The Croydon Council, as well as other organizations aiming to increase green procurement practices, can use these examples and ideas to better their policies.

## **Appendix E: Case Study by London Remade of the London Borough of Hackney**

The London Borough of Hackney was one of two boroughs to receive a gold status in the 2008-2009 Mayor of London's Green Procurement Award. The Hackney Council is very committed to their environment and sustainability in their procurement process. The council uses environmental considerations at every stage of the procurement process and when approaching a procurement opportunity. These include considering whole life costing when undertaking procurement, contracting with suppliers who are concerned about their environmental performances and who are able to demonstrate policies and procedures to address environmental issues, minimizing waste, and using goods that have recognized environmental standards.

The London Borough of Hackney approaches each procurement product/service (if over £25000) through a procurement risk assessment of six steps; rethink, eliminate, reduce, re-use, recycle, and dispose or end of life management. Hackney goes into specific detail when selecting the correct vendor or product such as how the vendor has performed on previous contracts, how knowledgeable the vendor is on the product or service, and certain certification from EU Eco-Management or Audit Scheme. Hackney also considers the Value for Money, or the optimum combination of whole-life costs and quality to meet the user's (Hackney's) requirement, to select the best qualified vendor for the council. In dealing with contract management, Hackney reviews the product's supply chain to address topics such as energy efficiency, materials & resource management, safe & clean production, distribution & logistics, total costs, secure supply, and innovation management. In order to meet the needs set by the Hackney Council, these topics need to be present in the contract and discussed with the supplier.

Hackney Council is a strong believer in E-procurement, or by transferring of documents electronically. Their ambition is to have a "year on year increase in electronic transactions, by providing support to and building capacity of our local and SME businesses" (Robson, N.D.)

## Appendix F: Case Study by London Remade of the London Borough of Greenwich

The London Borough of Greenwich was one of two boroughs to receive a gold status for the Mayor of London's Green Procurement Code (MoLGPC, 2009e). Furthermore, Greenwich was shortlisted for the *People* category and was highly commended for *Policy, Strategy, and Communication* (MoLGPC, 2009e). The Greener Greenwich Task Force (GGTF); which includes the Strategic Sourcing Manager, officers from each business area in the council, and the Chief Executive department; reviews all purchasing within the council and assists in decision making on environmental and sustainability issues (MoLGPC, 2009e). It is led by the Council Environmental and Sustainable Co-coordinator and championed by an elected member focused on the environment (MoLGPC, 2009e). All Contract Officers, Strategic Procurement staff, and some senior officers of the GGTF have attended the Institute of Environmental Management and Assessment (IEMA), an advanced training course delivered in collaboration with London Remade (MoLGPC, 2009e). The Strategic Sourcing Manager is the leader for green procurement issues and works closely with officers making purchases (MoLGPC, 2009e). In addition to working with the Strategic Sourcing Manager, all procurement staff have environment and sustainability objectives in their Performance Review and Development Plan (PRAD) (MoLGPC, 2009e).

The Greenwich Council has a Sustainable Procurement Strategy which contains specific targets, including the goals for completing different levels of the flexible framework. The flexible framework is a plan meant to aid the UK in becoming one of the leading organizations in sustainable development in the EU (Mayor of London's Green Procurement Code, 2009a). Linked with the council's core objectives are a Corporate Procurement Strategy, which references sustainability, and a Climate Change Strategy (MoLGPC, 2009e). These strategies were edited by the Director of Finance and Customer Services and approved by the council leader (MoLGPC, 2009e). The policy was reviewed by London Remade, and Groundwork, a group of charities that helps organizations to go green (MoLGPC, 2009e). The council promotes the strategy at events, makes it publicly available, and looks for feedback from suppliers (MoLGPC, 2009e). The GGTF provides input on the strategy and aids in producing specific

targets for different procurement areas (MoLGPC, 2009e). In order to review its contracts, Greenwich uses a Pre Qualification Questionnaire (PQQ), as well as the London Centre of Excellence toolkit (MoLGPC, 2009e). The policy is advertised through the internet and intranet, staff meetings, telephone conversations with suppliers, the tendering process, leaflets distributed at large events, and the contract management process (MoLGPC, 2009e). Greenwich has also adopted the Government Timber Procurement Policy, which ensures that timber is purchased from sustainable sources (MoLGPC, 2009e). These acts have helped Greenwich to achieve its gold status (MoLGPC, 2009e).

## **Appendix G: Case Study by London Remade of the London Fire Brigade**

The London Fire Brigade (LFB) received a gold status in the Mayor of London's Green Procurement Code and was the winner of the "Procurement Process" section of the award (MoLGPC, 2009g). Using expenditure analysis and considering product category and supplier size, LFB identified key suppliers of sustainable products (MoLGPC, 2009g). The effects of the department's procurement are assessed annually as part of their Environmental Management System (EMS) (MoLGPC, 2009g). Using the Sustainable Procurement Force's prioritization methodology, LFB prioritize sustainability risks and integrated these in their Forward Plan of Contracts (MoLGPC, 2009g). This information was used to create a Sustainable Development Impact Assessment (SDIA), which is used in all new contracts (MoLGPC, 2009g). The SDIA also has procurement staff score risks according to the Mayor's 7 Responsible Procurement (RP) themes, which include "encouraging a diverse base of suppliers, promoting fair employment practices, promoting workforce welfare, addressing strategic labor needs and enabling training, community benefits, ethical sourcing practices, and promoting greater environmental sustainability" (Greater London Authority, 2008). Furthermore, RP is incorporated into all contracts and all staff have performance objectives related to RP (MoLGPC, 2009g). LFB has a centralized internal RP working group, which shares good practice and contract information across departments (MoLGPC, 2009g). These acts have made the London Fire Brigade a leader in the "Procurement Process" category.

## Appendix H: Case Study by London Remade of Transport for London

Transport for London (TfL) not only received a gold status in the Mayor of London's Green Procurement Code, but also was highly commended in the "Engaging Suppliers" category, and was the winner in the "Measurements and Results" category (Mayor of London's Green Procurement Code [MoLGPC], 2009b). With over 3,500 primary suppliers and several supply chains, it is crucial that Transport for London properly engage its suppliers (MoLGPC, 2009b). The organization uses websites and print media to reach small suppliers, and also speaks at supplier events (MoLGPC, 2009b). With larger suppliers, or suppliers who work more closely with Transport for London, the organization uses a supplier management programme to provide personalized advice and guidance (MoLGPC, 2009b). In 2008, TfL invited key suppliers to promote sustainability through "Innovation Workshops" and lunchtime procurement seminars (MoLGPC, 2009b). Through these and other measures, 57% of surveyed suppliers reported being aware of their roles and responsibilities in the organization's responsible procurement policy (MoLGPC, 2009b). The organization also took more specific steps for different products, such as changing delivery frequencies for stationary contracts and requiring suppliers with waste contracts to register with FORS, which promotes road safety and sustainable travel (MoLGPC, 2009b). Furthermore, TfL invited its top 200 suppliers to join its partnership organizations such as the Mayor of London's Green Procurement Code (MoLGPC, 2009b).

Transport for London works diligently to establish environmental key performance indicators (KPIs) that measure the results of their green procurement efforts (MoLGPC, 2009c). These results are published annually in the Environmental Report (MoLGPC, 2009c). They have been able to increase their impacts using prioritization methodology workshops to identify changes that will have the greatest environmental impact (MoLGPC, 2009c). The environmental effects of each purchase are reviewed on a mandatory basis (MoLGPC, 2009c). TfL also added Responsible Procurement (RP) provisions to each of its contracts, which require suppliers to report sustainability activities regularly (MoLGPC, 2009c). Using a Supplier Management Relationship Program (SMRP) with regular reporting and review meetings, TfL monitors suppliers RP progress (MoLGPC, 2009c). TfL also compares its progress to that of other

organizations on a regular basis and participates in knowledge-sharing exchanges (MoLGPC, 2009c).

## Appendix I: Interview questions for the London Borough of Greenwich

1. The London Borough of Greenwich has received a gold level in the Mayor of London's Green Procurement Code and was shortlisted for the "People" category and highly commended for the "Policy, Strategy, and Communication" section. What were the biggest contributions to your success?
2. What is the structure of the Greener Greenwich Task Force?
  - a. How many people are on this council?
  - b. What is the hierarchy within the council?
  - c. What are the responsibilities of the Council Environmental and Sustainable Co-coordinator?
  - d. What are the responsibilities of the elected environmental champion? What are the criteria used to elect this champion?
  - e. What are the responsibilities of the Strategic Sourcing Manager?
  - f. What are the responsibilities of the Chief Executive department?
  - g. What are the responsibilities of other officers within the task force?
3. What are the responsibilities of the Greener Greenwich Task Force?
  - a. How does the task force assist in decision making on environmental and sustainability issues?
  - b. What criteria are used to review purchases?
  - c. How much authority does the Greener Greenwich Task Force have over purchases?
4. What is covered during the Institute of Environmental Management and Assessment (IEMA) training course? Is this training renewed on a regular basis? How often?
5. What environment and sustainability objectives are in procurement staff's Performance Review and Development Plans (PRAD)?
6. What targets are in your Sustainable Procurement Strategy?
  - a. What is your current level in the Flexible Framework?
    - i. What was your biggest barrier to reaching this level?
    - ii. How did you overcome this barrier?

- b. How does your Corporate Procurement Strategy reference sustainability?
  - c. What targets are included in your Climate Change Strategy? How do you plan to reach these targets?
- 7. How do you promote your strategy?
  - a. What type of feedback have you gotten from suppliers?
  - b. What type of events do you promote your strategy at? How do you promote your strategy at events?
- 8. How are Pre Qualification Questions used to review procurement contracts?
- 9. How has your green procurement policy changed in light of the recent economy?
- 10. Is your council going through a restructure?
  - a. Is the council likely to keep the current green procurement resource?
  - b. Is your green procurement champion a full-time or part-time employee?
- 11. Thank you for your time, we appreciate your help in our study of green procurement.

## Appendix J: Interview Questions for the London Fire Brigade

1. Your organization has received gold status in the Mayor of London's Green Procurement Code and won the award for the "Procurement Process" category of the review. What were the biggest contributions to your success?
2. Who are your key suppliers of sustainable products?
3. How are the effects of the department's procurement assessed?
4. What does the Sustainable Development Impact Assessment (SDIA) consist of?
5. What performance objectives do staff have in reference to responsible procurement?
6. Please elaborate on the Responsible Procurement working group.
  - a. What are the goals and objectives of the Responsible Procurement working group?
  - b. Who is in this group?
  - c. How is good practice and contract information shared across departments?
7. How has your green procurement policy changed in light of the recent economy?
8. Is your organization going through a restructure?
  - a. Is the organization likely to keep the current green procurement resource?
  - b. Is your green procurement champion a full-time or part-time employee?
9. Thank you for your time, we appreciate your help in our study of green procurement.

## Appendix K: Interview Questions for Transport for London

1. Your organization received a gold status in the Mayor of London's Green Procurement Code and was highly commended in the "Engaging Suppliers" section of the progress review and won the "Measurements and Results" section. What were the greatest contributions to your success?
2. What is your supplier management programme? What types of advice and guidance does the supplier management programme offer suppliers?
3. Please describe your "Innovation Workshops".
4. Please describe your lunchtime procurement seminars.
5. What are your environmental key performance indicators (KPIs)? How are these KPIs measured?
6. What are prioritization methodology workshops?
7. What changes have been identified as having the greatest environmental impact through your prioritization methodology workshops?
8. Please describe your supplier relationship program (SRP).
  - a. What information do suppliers report? How often do they report it?
  - b. What happens in review meetings?
  - c. What is the supplier response to these programs?
9. What knowledge-sharing exchanges does your organization participate in?
10. How has your green procurement policy changed in light of the recent economy?
11. Is your organization going through a restructure?
  - a. Is the organization likely to keep the current green procurement resource?
  - b. Is your green procurement champion a full-time or part-time employee?
12. Thank you for your time, we appreciate your help in our study of green procurement.

## Appendix L: Interview Questions for the London Borough of Hackney

1. The London Borough of Hackney has received a gold status in the Mayor of London's Green Procurement Code. What are the biggest contributions to your success?
2. What are your Service Level Agreements (SLAs)?
3. Please describe your e-procurement process.
4. What do you feel that your borough has done that as far as procurement that has had the largest environmental impact?
5. What are some inexpensive Green procurement techniques that your borough has implemented?
6. Though being sustainable, are there drawbacks to the methods that you have implemented? What are some of these drawbacks?
7. What green vendors would you recommend/do you work with currently?
8. What sustainable procurement training does your staff receive? Who receives this training? What does it entail?
9. What incentives does your organization provide its staff to purchase sustainably?
10. What are your most common green purchases?
11. What have you done since last year's award in order to improve your score?
12. What are your goals regarding green procurement for the future?
13. Do you have any advice regarding green procurement for other organizations?
14. How has your green procurement policy changed in light of the recent economy?
15. Is your council going through a restructure?
  - a. Is the council likely to keep the current green procurement resource?
  - b. Is your green procurement champion a full-time or part-time employee?
16. Thank you for your time, we appreciate your help in our study of green procurement.

## Appendix M: Sample email to previous gold status organizations participating in the Mayor of London's Green Procurement Code

Dear **(Enter Name)**,

We are a group of students from the American university Worcester Polytechnic Institute studying green procurement. We are in London working with Muhammad Ali and Kia Colbeck of the Croydon Council to complete their application to the Mayor of London's Green Procurement Code and to suggest areas of improvement for coming years. The council took part in the Mayor of London's Green Procurement Code the two previous years and was awarded silver level last year.

We have noted that London Remade names your organization as a leader in **(why we are interviewing them/awards they have won)**. We were hoping that you would be happy to allow us to conduct a face-to-face interview to gain insight into your policies and procedures. Sharing your best practice would not only help the London Borough of Croydon, but would also help improve green procurement in London. We look forward to hearing back from you to set up an appointment and will follow up this email with a phone call. Please respond no later than April 1st, as our time in London is limited. Feel free to email Jessica Rastad at [Jessica.Rastad@croydon.gov.uk](mailto:Jessica.Rastad@croydon.gov.uk) with any questions or concerns.

Thank you for your cooperation,

Jessica Rastad

Timothy Driscoll

Amelia Halliday

Ryan Stock

## **Appendix N: Interview Preamble – Green Procurement Leaders**

We are a team of students from Worcester Polytechnic Institute in Massachusetts in the United States. We are conducting interviews regarding current and future green procurement policies and practices. This is a collaborative project between the Croydon Council and WPI, and your participation is greatly appreciated.

Your participation in these interviews is completely voluntary and you may withdraw at any time.

We would like to be able to quote you in our report, and we will send you a draft of the relevant sections for your approval. Alternatively, if you prefer, we will keep your comments confidential.

## Appendix O: Sample Email Regarding the Mayor of London's Green Procurement Code for the Departments within the Croydon Council

Dear **(Enter Name)**,

We are a group of students from the American university Worcester Polytechnic Institute. We are in London working with Muhammad Ali and Kia Colbeck of the Croydon Council to complete their application to the Mayor of London's Green Procurement Code and to suggest areas of improvement for coming years. The council took part in the Mayor of London's Green Procurement Code the two previous years **(and a major part of the entry was information on green purchasing from (area of procurement) – please see attached spreadsheet)**.

We are planning to take part in the Green Procurement Code again this year and are hoping to start working on this soon, collating the data and supporting evidence. We will be in London for a limited time and would appreciate if you could respond within the next two weeks, by April 1st. **(Muhammad Ali, Environmental Management Officer, has suggested that you have given us this information last year. Are you still the person to help us with this? If so, will you be able to assist again this year?)**

The format will be very much the same as last year – with statistics supplied in the same way (see attached), and crucially, we will require invoices as supporting evidence.

As you may know, we achieved Silver status in last year's awards **(– with the (procurement area) statistics contributing significantly to this success)**. We are hoping to achieve the same, if not better, this year. If you are happy to contribute, please complete the attached spreadsheet by April 1<sup>st</sup>, and we will be in touch again with further detail. Feel free to contact Jessica Rastad at [Jessica.Rastad@croydon.gov.uk](mailto:Jessica.Rastad@croydon.gov.uk) with any questions or concerns.

Thank you for your cooperation,

Jessica Rastad

Timothy Driscoll

Amelia Halliday

Ryan Stock

## Appendix P: Email Requesting Participation in Survey

We are a group of students from the American university Worcester Polytechnic Institute. We are in London working with Muhammad Ali and Kia Colbeck of the Croydon Council to complete their application to the Mayor of London's Green Procurement Code and to suggest areas of improvement for coming years. The council took part in the Mayor of London's Green Procurement Code the two previous years.

This is a completely anonymous survey being used to determine the opinions of Croydon Council staff about the current green procurement policies within the Council. Muhammad Ali, Environmental Management Officer, has given us your name as a leader of green procurement policies within the Council. The survey is titled "Green Procurement in the Croydon Council" and can be accessed at [http://www.kwiksurveys.com/online-survey.php?surveyID=KJHLJO\\_dcbe41c](http://www.kwiksurveys.com/online-survey.php?surveyID=KJHLJO_dcbe41c). The survey is fairly short, consisting of 14 questions.

Your participation in this survey is greatly appreciated and will serve to improve Croydon's Environmental Procurement Policy.

We will be in London for a limited time and would appreciate if you could respond within the next two weeks, by April 8<sup>th</sup>. Feel free to contact Amelia Halliday at [Amelia.Halliday@croydon.gov.uk](mailto:Amelia.Halliday@croydon.gov.uk) with any questions or concerns.

Sincerely,

Amelia Halliday

Timothy Driscoll

Jessica Rastad

Ryan Stock

## Appendix Q: Survey Regarding Knowledge, Attitude, and Practice of Current Green Procurement Policies within the Croydon Council

### Green Procurement in the Croydon Council

The following survey is meant to gauge staff awareness, opinions, and participation in green procurement. Your responses will be kept entirely anonymous.

1. Are you aware that Croydon has a Environmental Procurement Policy?

- Yes  
 No

[Reset](#)

2. Do you know how to access the Environmental Procurement Policy?

- Yes  
 No

[Reset](#)

3. Have you read the Environmental Procurement Policy?

- Yes  
 No

[Reset](#)

4. On a scale of 1-5, I understand how to implement the Environmental Procurement Policy \_\_\_\_\_

1-Not at all, 3-Fairly well, 5-Very well



[Reset](#)

5. On a scale of 1-5, how difficult or easy is it to implement the Environmental Procurement Policy in your work?

1-Very difficult, 3-Fairly simple 5-Very simple



[Reset](#)

6.  
Please explain your reasoning for question 5.

7.  
When purchasing goods and supplies on behalf of the Croydon Council, how often do you follow the Environmental Procurement Policy?

- Always
- Sometimes
- Never

[Reset](#)

8. The Croydon Council should enforce the Environmental Procurement Policy \_\_\_\_\_

- More
- Less
- It is fine as is
- I do not know

[Reset](#)

9.  
Have you purchased green goods and services in the last fiscal year (2009-2010)? if yes please list the companies who you purchased them from, if no, write "none".

10.  
Would it help to have more information and guidance (in the Croydon Council) regarding green procurement?

- Yes
- No
- Unsure

[Reset](#)

11.  
What additional guidance would be helpful?

12. Whom in the council would you consult regarding green procurement guidance?

13. Would a one-stop green procurement guide and green supplier/product guide help make green procurement decision easy for you?

- Yes
- No
- N/A

[Reset](#)

14. Do you have any suggestions regarding green procurement in the Croydon Council?

[< Finish Survey >](#)

# **Croydon Council**

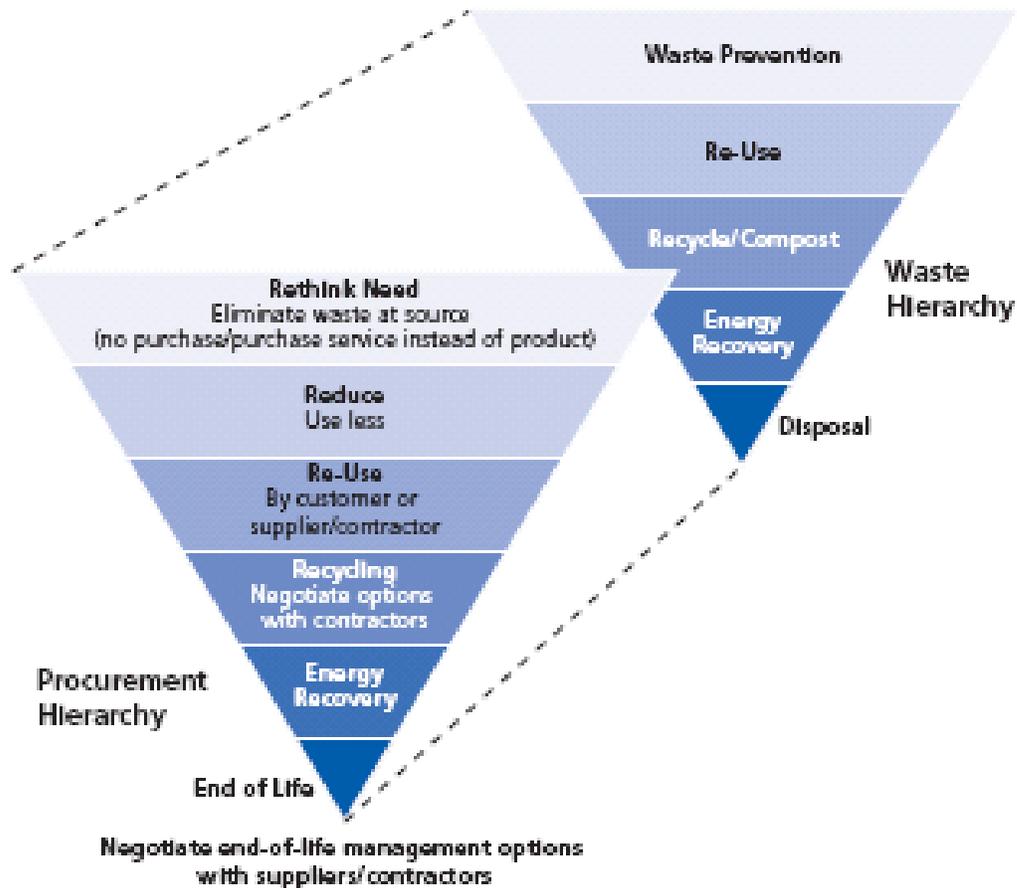
# **Green Procurement Guidebook**

## Preface

The Croydon Council's Environmental Procurement Policy focuses on two main areas of green purchasing; "sustainability" and "value for money". These goals help find cost efficient, eco-friendly alternatives. This policy shows how the council can benefit economically and socially while continuing to reduce environmental impacts. The council's vision is "a safe, healthy, prosperous and sustainable future for the whole community". In order to achieve this organizational goal, the council must first be aware of the sustainable procurement opportunities that exist. With guidance by the council, employees can be informed of green alternatives and where to find them. Croydon Council is introducing a Green Procurement Guide which will assist in the procurement process throughout the council.

Before making purchases, it is important to assess the need. This prevents purchasing materials and services that are not needed, that are present elsewhere in the organization, or that can be rented or shared rather than purchased. The following figure shows the procurement hierarchy and is useful when assessing need.

## Procurement Hierarchy (DEFRA, 2006)



If the purchase is necessary, the tendering process begins.

Pre Qualifying Questionnaire can be found on the intranet, and Section F of the PQQ is related to the questions on Environmental Performance of the supplier/contractor. This section has includes questions on the companies waste management plan, carbon management plan, vehicle emissions, Environmental Management Systems, achievements, and public environmental statement. It also asks for areas of environmental management included in the companies policy, including energy use, water use, transport and vehicle use, chemical and

hazardous substance use, solid and liquid waste, emissions, pollutions, and staff training.

Contact information for the person in charge of environmental management, information regarding the supplier's environmental policy for the specific goods or service, explanation of any prosecution by environmental authorities, and details about how the supplier complies with specific environmental legislation are also required. When reviewing contracts, be sure to assess the impact of the entire supply chain including material composition, transport, manufacturing, packaging, product use, and end of life disposal. For a complete guide on environmental procurement policy, please refer to **Sustainable procurement one-stop-guide London Borough of Croydon**.

The following table shows some environmental effects to consider.

## Environmental Impacts of the Supply Chain (Plas & Erdmenger, 2000)

Product characteristics	Ecological alternative	Environmental consequence <sup>2</sup>				ACTION - Examples -
		MATERIAL	ENERGY	EMISSIONS	WASTE	
Material composition	Recycled material	X	X		X	Use recycled toilet and towel papers. Procure refuse sacks made of recycled plastic.
	Renewable material	X				Choose recycled concrete or crushed rock rather than gravel as a construction material.
	No toxic substance			X	X	Use chlorine-free paper, PCB-free electronics or PVC-free floor coverings.
Transport	Short distance		X	X		Buy your fruits and vegetables from local producers.
	Transport means		X	X		Make use of rail and boat versus road and plane transport.
Manu-facturing	Taking into account the environment	X	X	X	X	Choose a producer which has an environmental management system.
Packa-ging	Reduction	X			X	Prefer recyclable, easily returnable or, if possible, no packaging at all.
Product use	Durability	X			X	Buy long-term guaranteed carpets.
	Repairability / Upgradability	X			X	Choose computers which can be upgraded and do not need to be replaced completely when becoming outdated.
	Compatibility with equipment/user habits	X	X	X	X	When changing for a recycled paper, test its compatibility with copiers and printers before distributing it throughout your organisation.
	Energy requirements		X			Choose low energy light bulbs to save energy (and reduce your annual cost by up to 70%).
	Safety for users	X	X	X	X	Use alternative pesticides or alternative methods of pest control.
End of life	Re-use potential	X			X	Buy refillable toner cartridges for laser and ink jet printers.
	Recyclability	X	X		X	When buying white goods, make sure that they can easily be dismantled and their material recycled.
	Disposal			X	X	Use biodegradable synthetic vegetable-based hydraulic oil for fleet maintenance.

This guide will provide advice for purchasing in the following areas:

Asbestos; Batteries; Cleaning Materials; Construction Materials; Highway; Energy and Water; Food; IT Equipment and Electrical Appliances; Office Furniture and Timber; Office Supplies, Stationary, and Paper; Paint; PVC Products; and Water Coolers.

The readers are provided with the different areas of purchasing and are offered suggestions to which environmentally friendly products are available and the best practices to keep in mind while purchasing these products. A detailed list of

suppliers and contact information is provided within the different purchasing categories. This guidebook will provide employees with the freedom of choosing which products best meet their specific needs, while at the same time giving control to the Council of the products being purchased. This guide should be used alongside the Environmental Procurement Policy and the one stop Green Procurement Guide.

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Information gathered from

Kirklees Council. (2007). *A Guide to Sustainable Procurement*. Retrieved from

<http://www.kirklees.gov.uk/publications/procurement/SustainableProcurement.pdf>

# Eco-labels

## Product certification scheme examples

Meet criteria or equivalent



# Asbestos

- Procurement Guidelines
  - Asbestos has been classified as a hazardous waste and regulations have been put into place to cover the prohibition of asbestos, the control of asbestos at work, and asbestos licensing.
  - THE CONTROL OF ASBESTOS REGULATION 2006
    - [www.opsi.gov.uk/SI/si2006/20062739.htm](http://www.opsi.gov.uk/SI/si2006/20062739.htm)
  - Asbestos, if already found in buildings, is difficult to remove properly. Products have been made to cover asbestos and protect it from endangering its surroundings.
- Possible Products
  - AbestoSafe
  - RoofCoat – Acrylic Roof Coating System
  - Compressed agricultural fiber panel (CAFP)
- Recommended Suppliers
  - Global Encasement, Inc.
    - <http://www.encasement.com/site/Products.html>

# Batteries

- Procurement Guidelines
  - avoid buying battery requiring equipment
  - buy batteries with reduced mercury levels
  - avoid zinc carbon and zinc chloride batteries
  - buy rechargeable batteries
  - for computers, purchase nickel hydride battery packs rather than nickel cadmium
  - Batteries are hazardous waste. Recycle them if possible, if not, dispose of them correctly
- For More Information
  - Department for Environmental Food and Rural Affairs
    - Website
      - [www.defra.gov.uk/environment/waste/topics/batteries/index.htm](http://www.defra.gov.uk/environment/waste/topics/batteries/index.htm)

# Cleaning Materials

- Procurement Guidelines
  - Chemicals to avoid:
    - Phosphates (detergents, water softeners)
    - Hydrochlorofluorocarbon (HCFC's) & Chlorofluorocarbon (CFC's) (materials in aerosol form)
    - Paradihlrobenzene (PDCD) (Toilet blocks, air fresheners, insect repellents)
    - Nitrolotriacetic Acid (NTA) & Ethylenediamine-tetra-acetate (EDTA) (Cleaners with foaming bubbles)
    - Alkyl phenol Ethoxylates (APE's) (Laundry detergents, disinfecting cleaners)
    - Chlorine Bleaches
    - Optical Brighteners
    - Synthetic perfumes and colors
  - Good Practices
    - Avoid products containing the above substances
    - Buy biodegradable products
    - Buy products made with fruit and organic acids
    - Buy vegetable based products
    - Avoid aerosols
    - Buy in bulk to save packaging
  - Ecolabels
    - The EU Ecolabel – denotes the most environmentally friendly products
- Recommended Suppliers
  - Office Depot
    - Supplies cleaning products such as hand towels and detergents
    - Contact
      - Website
        - <http://www.officedepot.co.uk/>
      - Address
        - Greenwich Way
        - Andover
        - Hampshire
        - SP10 4JZ

- Telephone
    - 0800 169 1698
  - Fax
    - 0800 169 8008
  - Email
    - [ukorders@officedepot.com](mailto:ukorders@officedepot.com)
- Interserve
  - Supplies cleaning products such as clear refuse sacks, square bin liners, paper bags, napkin 2ply white, toilet roll, hand towel, couch roll.
  - Many of these products contain eco-labels which are required to be included for the Mayor of London's Green Procurement Code
  - Contact
    - Website
      - <http://www.interserve.com/>
    - Address
      - Interserve House, Andover
      - Ruscombe Park,
      - Twyford,
      - Reading,
      - Berkshire RG10 9JU
    - Telephone
      - 0118 932 0123
    - Fax
      - 0118 932 0206
- Greenham Trading
  - Supplies cleaning products such as trash bags
  - Contact
    - Website
      - <http://www.greenham.com/>
    - Address
      - Greenham House
      - 671 London Road
      - Isleworth
      - Middlesex
      - TW7 4EX

- Telephone
    - 0208 560 1244
  - Fax
    - 0208 568 8423
  - Email
    - [national.sales@greenham.co.uk](mailto:national.sales@greenham.co.uk)
- Kimberly-Clark Limited
  - Contact
    - Website
      - <https://www.kimberly-clark.com/>
    - Address
      - 1 Tower View
      - Kings Hill
      - West Malling
      - Kent
      - ME19 4HA
    - Telephone
      - Brand or product questions
        - 0800 626 088
      - General enquiries
        - 01732 594000
- Bio-D Company
  - Contact
    - Website
      - [www.biodegradable.biz](http://www.biodegradable.biz)
- Ecover
  - Contact
    - Website
      - [www.ecover.com](http://www.ecover.com)
- Natural Eco Trading
  - Contact
    - Website
      - [www.greenbrands.co.uk](http://www.greenbrands.co.uk)

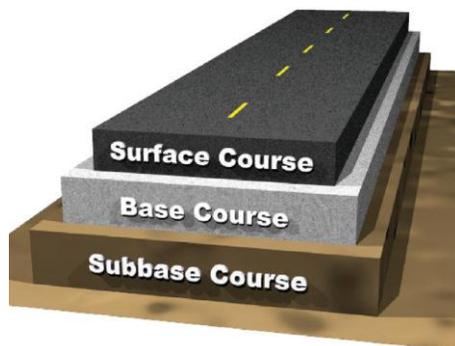
- Sunshine Makers
  - Contact
    - Website
      - [www.simplegreen.co.uk](http://www.simplegreen.co.uk)

# Construction Materials

- Procurement Guidelines
  - If building or renovating, apply the Building Research Establishment Environmental Assessment Method (BREEAM) specifications.
    - [www.breeam.org](http://www.breeam.org)
  - Good Practices
    - Use reclaimed brick, building stone, and recycled aggregate
    - Specify materials derived from a secondary source
    - Apply BREEAM standards of VERY GOOD or EXCELLENT
    - Strive for a 10% minimum target of recycled content in specifications
- Recommended Suppliers
  - ECOPHON - Company
    - [http://www.ecophon.co.uk/templates/webpuffpage\\_\\_\\_85382.aspx](http://www.ecophon.co.uk/templates/webpuffpage___85382.aspx)
  - AGGREGAIN
    - Case studies, specifications for recycled aggregates, and suppliers
    - [www.aggregain.org.uk](http://www.aggregain.org.uk)
  - NATIONAL GREEN SPECIFICATION (NGS)
    - Provides a guide and directory of sustainable construction materials available in the UK, including specifications and design
    - [www.greenspec.co.uk](http://www.greenspec.co.uk)

# Transportation

- Procurement Guidelines
  - Best Practices:
    - Comply with the Enhanced Capital Allowances scheme (Motors and Drives)
      - <http://www.eca.gov.uk/NR/rdonlyres/6754FE19-C697-49DA-B482-DA9426611ACF/0/ETCL2007.pdf>
      - Pages 55 – 61
    - The Enhanced Capital Allowance scheme promotes 5 products within the Motors & Drives categories, the key products being Single Speed Motors, Variable Speed Drives and Integrated Motor Drive Units.
    - Single Speed motors included on the Energy Technology List are the best motors available on the market and meet the performance thresholds of either the European Committee of Manufacturers of Electrical Machines and Power Electronics (CEMEP) motor labeling scheme (IEC) or the UK Water Industry Mechanical and Electrical Specifications (WIMES)
    - New Pavement Design – Should last up to 50 years compared to only 20 years with current design



- Old Pavement – Dowel Bar Retrofit (DBR) and grinding old concrete pavement smooth add years to the life of the pavement reduces consumption, improving sustainability, and saving money
- Possible Products

- Solar Power Traffic System - Reduces greenhouse gas emissions, reduces consumption and decreases costs
- LED Lighting – Lasts longer and improves sustainability
- Warm Mix Asphalt (New) – Uses special modifiers that lower the mixing temperature for asphalt. Less heat means less fuel and lower emissions, conserving fossil fuels while reducing greenhouse gases
- Reclaiming Asphalt Pavement (RAP) – Reusing asphalt is a great way to lower CO<sub>2</sub> emissions into the atmosphere
- Hot-In-Place Recycling (HIP) – Performs the same function as RAP except it is done on the current pavement
- Cold-In-Place Recycling – Turning worn down pavement into a new solid base. Repair and compact the old pavement so a new layer can be placed on top.
- Recommended Suppliers
  - Highway Electrical Manufacturers and Suppliers Association (HEMSA)
    - Highway lighting suppliers
    - <http://www.highwayelectrical.org.uk/hemsa/>
  - Hill & Smith
    - Springvale Business & Industrial Park  
Bilston  
  
Wolverhampton  
  
WV14 0QL
    - (<http://www.hill-smith.co.uk/>)

# Energy and Water

- Procurement Guidelines
  - Energy
    - Look for low energy light bulbs wherever possible
    - Look for appliances that have energy efficient devices
    - Look for devices that save energy while accumulating long-term financial savings
    - Include renewable sources into new buildings to meet with the Council's targets of environmental sustainability
  - Water
    - Look for appliances that are water efficient
    - Look for equipment or devices that minimize consumption of water while accumulating long-term financial savings
  - Eco-labels
    - EPA Energy Star -> Energy Star Office Equipment Program is a self-certification program. Machines bearing this logo reduce power consumption.
- Search Suppliers
  - <http://www.eca.gov.uk/etl/find/>
  - [http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product](http://www.energystar.gov/index.cfm?fuseaction=find_a_product).
  - <http://www.eca.gov.uk/>
  - [http://www.biomassenergycentre.org.uk/portal/page?\\_pageid=77,225275&\\_dad=portalI&\\_schema=PORTAL](http://www.biomassenergycentre.org.uk/portal/page?_pageid=77,225275&_dad=portalI&_schema=PORTAL)
  - <http://www.buyingsolutions.gov.uk/products/>
  - <http://www.carbonmark.co.uk/directory/index.html>
- Recommended Suppliers
  - Glow-worm - heating products
    - Provides "Value for Money" heating products
    - Provides hot water solutions for energy conservation
    - Contact
      - Website
        - <http://www.buyersguide.co.uk/profiles/g/glow-worm/>
  - Thames Water – water devices
    - Provides water saving cistern devices
    - Contact
      - Website

- <http://www.thameswater.co.uk/cps/rde/xchg/corp/hs.xsl/6659.htm>
- Power Perfector – energy products
  - Provides reduced energy products that can cut carbon emissions and energy consumption by 20%
  - Contact
    - Website
      - <http://www.powerperfector.com/>

# Food

- Procurement Guidelines
  - Buy food products that are locally grown to boost the local agricultural economy
  - Only buying fruits and vegetables *in* season
  - Buy genetically modified (GM) foods and/or organic foods, avoid foods that use pesticides and other chemicals in their production
  - Buy food products bearing the Fairtrade Foundation, Red Tractor, and other food labels
  - Choosing food products with low levels of packaging and/or packing that is easy to recycle
  - Using large containers instead of individual servings catering packs of milk, sugar, coffee, etc.
- Search Suppliers
  - [http://www.fairtrade.org.uk/products/wholesaler\\_suppliers.aspx](http://www.fairtrade.org.uk/products/wholesaler_suppliers.aspx)
  - [http://www.fairtrade.org.uk/products/catering\\_products.aspx](http://www.fairtrade.org.uk/products/catering_products.aspx)
  - [www.farmersmarkets.net](http://www.farmersmarkets.net)
  - <http://www.farmersmarkets.net>
  - [http://www.myredtractor.co.uk/site/rtc\\_buy.php](http://www.myredtractor.co.uk/site/rtc_buy.php)

# IT and Electrical Appliances

- Procurement Guidelines
  - IT Equipment
    - Buy laser printers and photocopiers with an ozone filter
    - Buy equipment that is energy efficient – bearing the Energy Star label
    - Buy equipment with automatic sleep and power down modes
    - Buy equipment that can easily be upgraded or repaired
    - Ensure equipment is able to produce double-sided copies and having this be the default print setting; printing on 'EconoMode' for daily print outs wherever able to do so
    - Buy from manufacturers that accept returns of end-of-life equipment
    - Buy equipment that is remanufactured
    - Buy equipment that can use recycled paper
    - Purchase equipment that complies with EU Flower criteria
  - Electrical Appliances/White Goods
    - Operate appliances directly in compliance with their instructions
    - Turn appliances off when not in use by unplugging through the power outlet
    - Buy appliances bearing the EU energy label, or products holding the highest star ratings in generating fewer greenhouse gas emissions
- Search Suppliers
  - <http://www.buyingsolutions.gov.uk/products/>
  - <http://www.onegreenearth.com/greenelectricity.php>
  - <http://www.c2ccertified.com/>
- Recommended Suppliers
  - Verdium - Software product
    - Provides enterprise software solutions that reduce energy consumption of PC networks
    - Contact
      - Website
        - <http://www.verdiem.com/>
  - Green Print - Ink/Printing Products

- Software that eliminates unwanted pages and saves paper and ink
- Contact
  - Website
    - <http://www.printgreener.com/>
- Nightwatchman - Software product
  - Software solution that shuts that addresses challenge of shutting down PCs in a large network where users require different settings for working and out-of-office hours
  - Reduces IT operational costs and power consumption
  - Contact
    - Website
      - <http://www.1e.com/index.aspx>

# Office Furniture and Timber

- Certifications to look for:
  - Forest management certification system of forest inspection
  - Chain of custody certification tracks of lumber through the supply chain from forest to final user
- Ecolabels
  - PEFC->Programme for Endorsement or Forest Certification Themes
  - Forest Stewardship Council
  - Malaysian Timber Certification Council
  - Sustainable Forestry Initiative
  - Canadian Standards Association Scheme
- Look for furniture reuse networks such as Green-Works
- Recommended Suppliers
  - Eurban – Leno products
    - Solid timber products and cross-laminated panels used for the super-structure (instead of concrete and steel structures)
    - Produced from waste from the timber industry and made from timber sourced from sustainable forests in Europe
    - Comes with an PEFC certificate
    - Contact
      - Website
        - <http://www.eurban.co.uk/>
      - Address
        - Unit 2
        - 33 Waterson Street
        - London E2 8HT
      - Telephone
        - 020 7749 3929
      - Email
        - [info@eurban.co.uk](mailto:info@eurban.co.uk)
  - Blue Line Furniture
    - Office furniture includes filing cabinets, office chairs, swivel chairs, office desks, glass desks, reception desks, and more
    - FSC certified
    - Contact
      - Website

- <http://www.blueline.uk.com/>
  - Address
    - Blue Line Office Furniture Ltd  
Endeavour House, Stansted Airport, Essex, CM24 1SJ
  - Telephone
    - 01279 669 470
    - Alt.: 01279 822 179
  - Fax
    - 01279 669 471
  - Email
    - [sales@blueline.uk.com](mailto:sales@blueline.uk.com)
- Green Building Store
  - Efficient windows and doors made with FSC certified timber
  - Products include windows & doors, insulation, air tightness products, ventilation (MVHR), water saving products, rainwater guttering, and paints & finishes
  - Contact
    - Website
      - <http://www.greenbuildingstore.co.uk/index.php>
    - Address
      - Heath House Mill, Heath House Lane, Golcar, Huddersfield HD7 4JW
    - Telephone
      - 01484 461705
    - Fax
      - 01484 653765
    - Email
      - [info@greenbuildingstore.co.uk](mailto:info@greenbuildingstore.co.uk)

# Office Supplies, Stationary, and Paper

- Recycled paper lowers waste and lowers use of virgin material
- All paper must be chlorine free
- Copying paper must be 100% recycled
- Printed publications must be 75% recycled
- Certifications to look for:
  - Forest management certification system of forest inspection
  - Chain of custody certification tracking of lumber through the supply chain from forest to final user
- Ecolabels
  - PEFC->Programme for Endorsement or Forest Certification Themes
  - Forest Stewardship Council
  - Malaysian Timber Certification Council
  - Sustainable Forestry Initiative
  - Canadian Standards Association Scheme
- Recommended suppliers
  - Office Depot
    - Certified by FSC, WWF-UK FTN (forest trade network), PEFC
    - Winner of many environmental awards
    - The “your greener office” section links you to the eco-friendly alternatives for almost any office related product you can think of
    - Contact
      - Website
        - <http://www.officedepot.com/>
      - Phone
        - 1-800-GO-DEPOT (1-800-463-3768)
      - Email support (site)
        - <http://www.officedepot.com/customerservice/customerServiceDisplay.do>
  - The Green Office
    - Look for fair-trade labels, FSC labels, and recycled content labels
    - Contact
      - Website
        - <http://www.thegreenoffice.co.uk/>

- Address
  - The Green Office  
d & e office solutions limited  
175-177 Shirley Road  
Southampton  
Hampshire SO15 3FG
- Phone
  - 0845 3890390
- Email (site)
  - <http://www.thegreenoffice.co.uk/contact.asp>
- The Green Desk
  - The worlds first carbon neutral office supplies company
  - Contact
    - Website
      - <http://www.thegreendesk.org.uk/>
    - Address
      - The Green Desk Ltd,  
Lion Lodge, Spout Hill, Addington Village, Croydon,  
Surrey.  
United Kingdom. CR0 5AN
    - Phone
      - 0844 335 6382.
    - Fax
      - 020 7183 8365
    - Email
      - [lovestationery@thegreendesk.co.uk](mailto:lovestationery@thegreendesk.co.uk)

# Paint

- Procurement Guidelines
  - Things to look for:
    - Avoid paints containing these chemicals or products:
      - Solvent based paints (release Volatile Organic Compounds (VOCs) which depletes ozone)
      - Heavy metal paints (pollute soil and water)
      - Titanium dioxide which is powder used in brilliant white paint (manufacturing process produces chlorine emissions and sulfur dioxide which are highly toxic and contribute to acid rain)
    - Good Practices
      - Purchase paints that comply with UK regulation for heavy metal (cadmium lead, mercury, and chrome)
      - Avoid solvent containing paints
      - Abide by the UK Red List or EU Black and Grey Lists for hazardous substances in paints
      - Use paint to abide by the Eco-label criteria (European Eco-label)
      - Look into plant oil or water based paints
      - Dispose of paints properly, especially those containing hazardous waste
    - The Highly Flammable Liquids & Liquefied Petroleum Gases Regulations 1972
      - This should be regulated to continually maintain safety while storing paints.
  - Recommended vendors
    - British Coatings Federation
      - [www.coatings.org.uk/](http://www.coatings.org.uk/)
    - Environment Agency
      - [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)
    - The Health and Safety Executive
      - [www.hse.gov.uk](http://www.hse.gov.uk)
- Recommended manufacturers
  - Natural Deco

- [www.naturaldeco.co.uk/](http://www.naturaldeco.co.uk/)
- Ecopaints
  - [www.ecopaints.co.uk/](http://www.ecopaints.co.uk/)
- Ecomerchant
  - [www.ecomerchant.co.uk/](http://www.ecomerchant.co.uk/)
- The Green Shop
  - [www.greenshop.co.uk/](http://www.greenshop.co.uk/)
- Green Building Store
  - [www.greenbuildingstore.co.uk/page--index.html](http://www.greenbuildingstore.co.uk/page--index.html)
- National Building Technologies
  - [www.national-building.co.uk/](http://www.national-building.co.uk/)
- Michael Wye & Associates
  - [www.mikewye.co.uk/](http://www.mikewye.co.uk/)
- Ty-Mawr Lime
  - [www.lime.org.uk/paints\\_finishing/](http://www.lime.org.uk/paints_finishing/)

## PVC Products

- Procurement Guidelines
  - Creates and releases toxic chemicals such as chlorine gas and dioxins
    - Difficult to recycle, ending up in landfills
  - PVC products can leak harmful additives during use and disposal, when they are burned or buried.
    - Burning creates and releases more dioxins and compounds containing chlorine, which further contaminates the environment.
- Good Practices/ Alternative Products

<u>Products</u>	<u>Alternatives</u>
Electrical cables/ wiring	Low smoke zero halogen/ LSHO cables
Flooring	Cork, Linoleum, wood, rubber
Piping (above ground)	Zinc, cast iron, copper, aluminum, galvanized steel
Piping (below ground)	High density polyethylene
Window frames and doors	Aluminum and combined; Reclaimed timber or FSC accredited

- Recommended Suppliers
  - GREENPEACE PVC ALTERNATIVE DATABASE
    - <http://archive.greenpeace.org/toxics/pvcdatabase/productalt.html>
  - PVC – THE POISON PLASTIC
    - <http://www.chej.org/BESAFE/pvc/safe.htm>

# Water Coolers

- Procurement Guidelines
  - Can be bulky and delivery of cartons is often required. This causes more time, travel, pollution and money.
  - Buy point of use water coolers
    - Uses plumbing water as drinking water and filters, heats and chills the water.
    - Eliminates the storage of water drums.
    - One monthly fee which includes instillation, sanitizing and filter changes.
- Recommended Suppliers
  - Bronte Natural Spring Water Ltd.
    - Contact
      - Website
        - [www.brontewater.co.uk](http://www.brontewater.co.uk)