Managing construction

The Thames Tunnel project would involve major construction works in London over a significant period of time. We are committed to making sure we minimise potential effects on the people that live and work near our sites.

Industry best practice

We are developing a Code of construction practice (CoCP), which will set out how we will manage our construction sites to minimise disruption to nearby communities. We will submit a draft CoCP with our planning consent application in late 2012. This will be further updated with relevant conditions that are required as part of our application, before we start construction.

During construction, we will require our contractors to be fully certified under the Considerate Contractors Scheme and to adhere to its principles, which fall under the following categories:

- considerate
- environmentally aware
- site cleanliness
- good neighbour
- respectful
- safe
- responsible
- accountable.

Communication and community liaison

Together with our contractors, we will ensure staff effectively engage with the community and provide appropriate information. These staff will be the first line of response to resolve issues of concern during construction.

We will arrange regular, ongoing liaison and face-to-face interaction between the community and the project team. We will ensure that occupiers of nearby properties are informed in advance of works taking place, including the duration of the activity.

For tunnelling works, we will provide a website that has information on the forecast and actual progress of the tunnel boring machines (TBMs). We will also notify properties and businesses along the route of the tunnel of the forecast timetable for the TBM.

We will maintain a 24-hour telephone helpline service during the main construction period to handle enquiries and concerns from the general public.
Working hours

At most of our sites we plan to carry out the majority of works within standard working hours. Other working hours include:

- continuous working
- extended working hours
- out of hours working.

Standard working hours

Our proposed standard working hours are:

- 8am-6pm, weekdays
- 8am-1pm, Saturday.

There will also be a period of up to one hour before and after these hours, known as the mobilisation period, for start-up and close-down activities. These activities may include staff arriving or leaving site, site meetings, site cleanup, checking machinery and general refuelling. The activities undertaken during the mobilisation period will not include operation of noisy machinery.

Continuous working

When we are carrying out tunnelling works we need to work 24 hours a day, seven days a week.

Tunnelling needs to be carried out continuously otherwise there is a possibility that the soil around the TBM cutterhead could move. It would also take a lot longer if we did not tunnel continuously.

Continuous working includes:

- tunnelling activities below ground
- removal and processing of excavated material from the tunnel
- movement of the processed excavated material to barges
- transporting of excavated material away from the site by barge from the main tunnel
- building the secondary lining inside the tunnel, if needed.

During continuous working hours, the movement of heavy goods vehicles (HGV) to and from the site would be limited to minimise environmental effects. For example, in residential areas, HGV movement may be limited to the day to minimise noise at night. In non-residential areas, HGV movement may be primarily at night to minimise the impact on the road network. These requirements will be agreed on a site-by-site basis with the local authority.

Extended working hours

Occasionally, we will need extended working hours to carry out works. For example, when we are concreting a particularly large volume that takes longer than a standard working day.

Extended working hours are likely to vary from site to site, and will be detailed in our CoCP. Subject to local variations, our proposed extended working hours are:

- 6pm-10pm, weekdays
- 1pm-5pm, Saturday.

We would agree extended working hours with the local authority. We would also notify local residents in advance.

Out of hours working

Occasionally, we may need to carry out works outside of standard working hours (for example, at night or at weekends). Reasons include delivering abnormal, large and heavy loads (such as the TBM) at times when there is not much traffic, or making connections onto the existing sewer system at night when there is low sewage flow.

Working out of hours would be agreed on a case-by-case basis with the local authority and we would notify the local residents beforehand.
Health, safety and security

Our worksites will contain very deep excavations and other potential hazards associated with construction. It is important that members of the public are protected from our construction sites.

We will build hoarding (a solid, generally timber, wall) around our worksites and employ security personnel to ensure members of the public do not accidentally or intentionally enter the sites.

Occasionally we will need to carry out works outside of our hoarded area, such as making a connection to the local sewer or water supply. In these cases, the working areas will be kept safe and secure by appropriate temporary fencing.

We will need to close footpaths at some sites to keep the public a safe distance from construction activities. Where we need to close a footpath, we will provide a clearly signposted and accessible diversion, which will be kept as short as possible.

Noise and vibration

We will seek to limit noise and vibration levels from construction works to minimise disturbance to our neighbours.

We are currently carrying out detailed assessments of existing background noise levels as part of our Environmental Impact Assessment (EIA). We will use these to assess effects of our construction works on our neighbours.

Full details of these assessments will form part of our Environmental Statement, which will be included with our planning consent application.

If our assessments show that noise levels may be unacceptable, we will require our contractor to take measures to limit noise to acceptable levels, such as:
• using quieter plant and equipment
• locating noisy activities away from neighbouring properties
• designing site hoardings to limit noise outside of the site
• enclosing the noisy parts of the site within a temporary, purpose-built building.

At our main tunnel drive sites (Carnwath Road Riverside, Kirtling Street and Chambers Wharf) and Greenwich Pumping Station, we will enclose the working area around the shaft in a temporary, purpose-built building when carrying out tunnelling works. This will limit noise, dust and light disturbance.

Materials needed for constructing the tunnel at night, such as concrete tunnel segments, will be loaded into the building during the day. This will minimise the need for movement of vehicles and machinery around the site at night.

During construction, we will monitor noise and vibration levels at a number of locations around the boundaries of all our sites. The monitoring locations will be agreed with the local authority and we will regularly submit the monitoring results to them.

We do not expect any significant vibration to be felt at the surface when the TBM is operating. There may be some minor noise and vibration as the TBM passes underneath, but this would be limited to a few days.
Air quality and odour

We will implement dust control measures to limit dust from our sites. These may include:

- fitting wheel washes near the site exit, where there is a potential to carry dust and mud off the site
- using wet sweeping methods
- damping down or covering stockpiles of excavated material.

We will identify sites with a higher level of risk of generating dust, or where the impacts may be greater on our neighbours (for example, due to the proximity of neighbouring buildings). Additional measures will be put in place to limit dust from these sites, including enclosing activities likely to generate dust or increasing the height of site hoarding.

It is not expected that the construction works will cause any significant odour.

At sites where we will be doing continuous working for long periods, we will enclose the working area around the shaft to minimise dust and odour nuisance.

Lighting

We will need to provide lighting on our sites during continuous or extended working hours, or during the darker winter months, in order to carry out our works safely.

The safety of the works is paramount but any night time light pollution outside the site will be minimised to recognised industry standards. Site lighting will be located and directed so it does not intrude into adjacent buildings or affect nocturnal animal species, such as bats.

At sites where we will be doing continuous working for long periods of time, we will enclose the working area around the shaft to minimise light disturbance.

Other considerations

The CoCP will take into consideration all topics in the EIA, including:

- water resources
- ecology
- heritage assets
- waste.