Committee(s):	Date(s):
Epping Forest Centre Joint Consultative Committee	06 Oct 2014
Subject: Heating arrangements at Epping Forest Field Studies Centre	**Public**
Report of: Paul Thomson – Superintendent of Epping Forest	**For Information**

Summary

The Epping Forest Field Centre Teaching Block at High Beach has hot water and central heating provided by large oil-fired boilers/calorifiers that have been condemned for carbon monoxide emissions following inspection. There have been considerable delays in replacement. This report gives a brief outline of this, workaround arrangements and future plans.

Recommendation(s)

Members are asked to:

- Note the report

Main Report

Background

1. The Epping Forest Field Centre at High Beach consists of a main block housing five classrooms and office space, and other buildings used as accommodation (Ravensmead, Buxton and Harting) as well as a sundry classroom known as the Timber Hut.
2. The Classroom and Office block heating and hot water are supplied by large oil-fired boilers (calorifiers) plus occasional additional electric space heaters. All other buildings are heated by gas or electric systems.
3. On Friday 17th January 2014 a Mitie Inspector visited the premises and work record sheet (4869296) confirmed *"'both boilers locked off & oil line shut as they are immediately dangerous"* this was due to hazardous levels of carbon monoxide being produced from the system.

4. Although it was initially believed that parts could be found and replaced quickly, not all the replacement parts could be sourced from the Italian manufacturer due to the age of the system. The City Surveyor therefore determined it was not economical to repair, and a wholesale replacement was required.

Interim Position

5. Having become clear that heating in the teaching block would be compromised for an extended period of many weeks, and large numbers of temporary electric units could not be used due to loading on circuits, The Epping Forest Assets Manager made the temporarily vacated High Beach Visitor Centre available to the Field Centre Team for lessons. This building's wood-chip fired boiler was also inoperative at the time, so this space and teaching block offices were heated using supplementary electric units.
6. The arrangement described above alleviated some but not all of the impacts on teaching staff and students, but some disruption, cold and discomfort was still unavoidable. This arrangement lasted through the cold months until the site was taken over by the Friends of Epping Forest and full heating of the Teaching Block was not required.
7. Costs of lighting, heating and some cleaning of the High Beach Visitor Centre building through this period were met by Epping Forest local risk budgets.

Replacement Options

8. The following replacement options were considered
    a. Utilise existing gas supply and replace with gas boiler
    b. Woodchip-powered boiler
    c. Wholesale like-for-like oil fired boiler
9. Option a, would also have advantages both in efficiency and fuel costs, but initial enquiries showed that although there was a gas supply to the site, it was at the end of a long line and gas pressures would be insufficient to run a system of the required size.
10. Option b, although preferable for sustainability reasons would also have needed considerable changes to infrastructure, possibly a new building to house the Woodchip Boiler, plus a new road for delivery of fuel and maintenance, necessitating formal Planning Permission. This, and the estimated initial outlay of £60K which was twice the cost of an oil-fired boiler, made this reason unaffordable.
11. Option c, like-for-like oil fired system was therefore the only reasonable option.

Costs of replacement

12. The Boiler was in the City Surveyors Additional Works Programme (20 year plan) for replacement in 2015/16 at a cost of £25k as part of £118k of space heating works inc. pipe, radiator and pump replacement.
13. At the time of the failure, City Surveyors were imposing a moratorium on all works, excepting those deemed to have immediate Health and Safety implications.
14. Protracted negotiations around contractor/supplier and funding led to long delays in the project, despite agreements being made at several points in order to move forward.
15. Replacement reached final agreement in late August 2014. To be carried out by Sykes, at an approximate cost of £33K (plus some additional for associated works for asbestos etc) to be met largely from the City Surveyors Additional Works Programme (20 year plan) with a small amount from the City Surveyors Breakdown Budget.

Final Replacement Timescale

16. At time of writing, the replacement works are underway by Sykes, with site clearance having started on Monday 9th September and with planned completion date 26th September.
17. There will be some disruption and noise during this time, EFFC staff, Contractor and Epping Forest representatives are working together to minimise the inconvenience to teaching groups.
18. Although like-for-like the new boiler will deliver improved fuel efficiency as it is a more modern system.

Conclusion

19. It is accepted that delays in the replacement of the Teaching Block heating system were both avoidable and inconvenient. It was fortunate that weather was unseasonably mild, and the alternative use of the Visitor Centre was possible but The City of London is grateful to EFFC staff for their forbearance during what is recognised to be challenging and inhospitable working conditions
20. The new system should be installed and commissioned by the meeting of your Committee, and in good time for the start of this year's cold weather.

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