BUCHANAN AND ST AMBROSE HIGH SCHOOLS CAMPUS

SITE RECOVERY GROUP

PROGRESS REPORT

November 2020

Contents

Introduction

The establishment of the Site Recovery Group was one of the key recommendations made by the Team which carried out an Independent Review of the difficulties which had arisen in the Buchanan and St Ambrose High Schools Campus in the summer of 2019.

I was invited to chair the Group and the first of seven meetings took place on 10 September 2019. The Group consisted of the head teachers, parents, staff representatives, pupils and the school chaplain. I was also joined by Dr Christine Davidson from the University of Strathclyde who served as Scientific Adviser to the Group. I wish to thank all of my colleagues for attending the meetings and fully participating in the discussions which took place. Individual members asked many questions throughout the process but any challenges raised were always made in a constructive and supportive manner and I thank them all for that.

Officials from NHS Lanarkshire and from private sector organisations participated in some meetings in the early stages of our work and I thank them for their willingness to help whenever asked.

North Lanarkshire Council fully supported the work of the Group and a number of officials participated in every meeting and hosted site visits. They produced reports and responded to all requests from the Group by answering questions and giving clarification on matters where this was required. I received particular support from Martine Ryan, Matt Costello and Stephen Penman and I offer my thanks to all the Council officials for their help and cooperation.

I believe that the Site Recovery Group has fulfilled its role as envisaged in the Independent Review Recommendations. I believe the Group can say that the key works originally identified in the Independent Review have been satisfactorily addressed. It is also the view of the Group that parents, pupils and staff can have confidence in the integrity of the schools campus. Indeed there is strong evidence to suggest that this confidence levels are high through both attitudinal surveys and levels of attendance.

In conclusion, I feel it appropriate to highlight four particular areas either because they require ongoing attention or because the Site Recovery Group is yet to be convinced that a solution has been found:

a) The Council commissioned an Independent Water Assessment in September 2019. This Review resulted in a large number of recommendations (the action plan is appended to this report). The Council is progressing these but it should be noted that there have been some delays in works being carried out because of coronavirus. A further risk assessment of the site is scheduled for March 2021 and this will provide an updated position on progress against recommendations at that time. It is important that these actions are progressed timeously and diligently.

b) In response to discussions at the Site Recovery Group, the Council commissioned an independent expert to examine the methane membrane. This work was delayed because of the pandemic and was due to be carried out during the October break. The Site Recovery Group has yet to receive assurance that the work has been carried out and that no issues have come to light.

c) There have been ongoing works required on the drainage system. This has caused serious disruption and discomfort to everyone on the site. The problems are apparently related to the settlement issues and are not yet fully resolved. As recently

as w/c 9th November a further rupture in the system resulted in many of the toilet facilities within St Ambrose being out of commission for most of the week. In addition, these problems often result in a horrendous smell which makes the situation worse. If the goodwill of the school communities are to be maintained then every effort must be made to find a permanent solution to drainage issue as soon as possible.

d) The settlement issues will be an ongoing problem at the site. The building itself is sited on a concrete slab and the settlement issues are beyond the boundaries of the building. An ongoing programme of works has been developed with the build contractor and this will be reviewed annually.

Terry Currie
Chair – Site Recovery Group
November 2020

1. Background

The difficulties pertaining to the site which houses St Ambrose High School, Buchanan High School and Townhead Community Centre are well documented and fully laid out in Chapter Three of the Independent Review which was commissioned by Scottish Government.

The planning application was for the erection of a secondary school, an additional support needs secondary school, community facilities, playing fields, associated road access and parking site.

The site is located adjacent to Drumpellier Country Park, Coatbridge. Preliminary work was undertaken in 2006 ahead of the planning application and included an assessment of risk of ground and water contamination. The area of ground concerned had at that time been grassed over and was in use as public open space for playing fields, dog walking and the like. However, such assessments were matters of particular importance because of the previous use for landfill purposes up until 1972.

Planning permission was granted on 9 June 2010 and the schools were then built by Balfour Beatty and opened for pupils on 5 November 2012.

The first report of a problem with blue water was on 7 October 2013. Problems were further reported in 2014, 2015 and 2016. The decision was taken to replace the pipework in the most affected areas but the problems persisted.

The issue was escalated to senior management at North Lanarkshire Council in 2018, following which all copper pipes in the schools were replaced.

In November 2018 NHS Lanarkshire Public Health Department received an email from a GP about a patient with bladder cancer. The patient reported that four other members of staff in the school had bladder cancer and they had concerns that this might be linked to the blue water which had been a problem for some years. NHS Lanarkshire Public Health Department led an investigation on these issues. They concluded that the water in the copper pipes was non-carcinogenic and that the cluster was ‘what could be deemed the norm in a cross section of the population of a similar demographic to that of the school teaching population’.

During the first half of 2019 numerous stories appeared in the media about the blue water and various health concerns. The media stories heightened public concerns and by this time MSPs were closely involved in developing events. The issue was raised in the Scottish Parliament.

A public meeting was held 6 June 2019, when representatives of North Lanarkshire Council and NHS Lanarkshire were present to explain their investigations and how they drew conclusions that the school was considered safe.

The Independent Review Team found that this meeting proved to be the turning point for relationships with the schools’ communities, with public officials unprepared for the level of aggression towards them. The majority of media enquiries to North Lanarkshire Council followed this meeting.

Against a background of escalating media coverage and growing concerns from parents and local politicians, the Deputy First Minister commissioned an independent review of the situation at the Buchanan and St Ambrose High School Campus on 12 June 2019.

2. The Independent Review

The Scottish Government, following consultation with North Lanarkshire Council and NHS Lanarkshire, asked Paul Cackette, the Scottish Government Chief Planning Reporter, and Dr Margaret Hannah, a former Director of Public Health, to undertake an independent and impartial review of the evidence in relation to the reported health and safety concerns at the Buchanan and St Ambrose High Schools Campus, including the history, construction and maintenance of the site. The primary purpose of the review was to provide further reassurance to the local community.

This was to include;

(i) As a priority, a review of the public health measures taken and conclusions drawn by NHS Lanarkshire in relation to the health concerns expressed by the schools and local communities. The review was to address specific health concerns that had been raised including
- Possible exposure to unspecified chemicals resulting from previous land use now at the school site.
- Attending the school and acquiring cancer, specifically bladder cancer.
- The presence of copper in the drinking water supply.
- Attendance at the school and the acquisition and impact of elevated blood levels of arsenic.

(ii) Assessing the information provided on public health related concerns raised by parents, pupils, school staff and the local community.

(iii) Reviewing the risk assessments made and validation of works undertaken across the site to assess whether all activity was carried out in accordance with appropriate regulations and best practice to mitigate against any risk to public health. This review would be carried out by a party independent of the original works and with input from all agencies involved.

While recognising it is for the reviewers to assess exactly how long this work would require, the Deputy First Minister had asked that they report to him, in sufficient time ahead of the planned opening of the campus for the 2019/20 school year, in order to inform decisions by North Lanarkshire Council as local education authority about educational provision at the campus and in particular whether to open on the planned dates.

The findings of the Independent Review were published in August 2019 within the timescales required by the Deputy First Minister

3. Conclusions and recommendations of the review

The Review Team came to a number of fundamental conclusions. They are summarised as follows;

a) Parents and teachers were right to raise concerns. They were entitled to be listened to and heard. They were entitled to expect North Lanarkshire Council and NHS Lanarkshire officials would take their concerns seriously and address them. All those officials did so. Unfortunately an atmosphere developed around the school campus in which parents and staff did not feel they were properly listened to and their concerns addressed.

b) The Review Team concluded that the school and site were safe. They concluded that there was no causal link between the well-documented hazards causing such public concern and any ill-health of those who work or are taught on the site. In their view there was no causal link between arsenic and the bladder cancer cases in Buchanan High School.

c) They looked at the evidence of what contaminants were on the site historically and the remediation measures associated with the school project. They assessed the environmental samples taken in July 2019. They concluded that the risk from hazardous contaminants is very low. Despite that general conclusion, they found a localised source sample at pit HP50 with elevated levels of PCBs and advised remediation on a purely precautionary basis.

d) The Team concluded that the water at the campus is safe to drink. The blue water is caused by copper which is not a significant health risk. Copper does not cause cancer. They state that there was no reason not to open the schools based on the blue water issue. They also stated that staff were right to raise concerns about copper in the drinking water supply and that these were not addressed seriously or quickly enough by North Lanarkshire Council.

e) They concluded that there was no cause for public concern relating to the gas membrane nor gasses from the site. However, they were quite clear that North Lanarkshire Council should make publicly available as soon as possible the periodic testing results for the membrane since its installation.

The Independent Review Team made five **recommendations**:

1) They would be supportive of a decision by North Lanarkshire Council to open the schools, on the basis that the council would undertake full and independently verified remediation of area designated HP50, entailing the removal of contaminants there or otherwise render the area safe from the risks from those contaminants.

2) They would be supportive of a decision by North Lanarkshire Council to open the schools on the basis that further water sampling shall be undertaken to confirm that the water supply is and remains compliant with drinking water quality standards and give confidence in the potable water being used by pupils and staff within the schools in accordance with Scottish Water requirements.

3) In the event that water sampling results are positive, they recommended that Scottish Water will refer matters to the Drinking Water Quality Regulator for Scotland in accordance with and consistent with standard procedures.

4) In the light of the conclusions in the report about the methane membrane and the importance of making public more detailed material about the records of previous periodic testing, they recommended that North Lanarkshire Council make publicly available as soon as possible the periodic testing results for the membrane since its installation.

5) In the light of the conclusions in the report concerning the ongoing relationship with parents, unions and staff, they would be supportive of the decision of North Lanarkshire Council to open the schools on the basis of North Lanarkshire Council agreeing to the following steps:

   a) North Lanarkshire Council shall, as early as possible and in conjunction and consultation with parent councils (and other representatives of parents), independent experts, unions and staff based on the campus across Buchanan High School, St Ambrose High School and Townhead Community Centre, establish a fully participative Site Recovery Group for the campus involving all key stakeholders to support future confidence in the site. North Lanarkshire Council through this Group shall adopt a plan including as a minimum:

      (i) A commitment to ongoing monitoring in relevant respects such as water, internal and external maintenance and monitoring the integrity of the gas methane membrane.
      (ii) a commitment to the preparation of relevant site monitoring reports and publication of an annual assessment which is shared with stakeholders.
      (iii) a commitment to take responsive action in consequence of this annual assessment if required in conjunction with the Site Recovery Group.
      (iv) an open channel for concerns to be raised by any stakeholder regarding the well-being of those on campus.

   b) Once established, the Site Recovery Group should explore further the need to assess and manage in-door air quality in relation to temperature, humidity and concentrations of carbon dioxide when the site is in use.

4. Establishment of the Site Recovery Group

In accordance with Recommendation 5(a) made by the Independent Review Team, a Site Recovery Group was established. The Group comprises parents, pupils, school chaplain, trade unions and head teachers. A full list of members of the Group is in Appendix 1.

The Independent Chair of the Group is Terry Currie. Terry has held senior positions with British Steel and Scottish Enterprise and is currently chair of the State Hospital Board for Scotland. He has previously served as a Non-Executive Director on the boards of New Lanarkshire Ltd, Scottish Manufacturing Advisory Services, Scottish Business in the Community and NHS Lanarkshire. He also served as chair of the Scottish Steelworkers Memorial Committee. He has served as a Deputy Lieutenant in Lanarkshire since 2000.

Dr Christine Davidson serves as Scientific Adviser to the Group. She is Reader in Pure and Applied Chemistry at the University of Strathclyde. Dr Davidson's research is in the area of environmental analytical chemistry, especially the development of new analytical methods to assess the risk to human health and the environment from priority pollutants. Recent studies have focused on the study of urban soils and inhalable airborne particles and on contaminated land, sediments and waters.

The Terms of Reference of the Site Recovery Group are:

a) To receive and consider ongoing monitoring reports from North Lanarkshire Council in respect of water quality, indoor air quality and the gas membrane.

b) To receive and consider reports from North Lanarkshire Council about works to address ground settlement on the campus and other ongoing maintenance.

c) To question officials from North Lanarkshire Council about these reports and raise any concerns about their contents.

d) To seek the opinion of independent experts about monitoring results.

e) To raise concerns about any health, safety or maintenance issues in respect of the campus.

f) To publish periodic reports (the frequency of reports being a matter for consideration by the Group) on the Group activities to be shared with the wider campus communities and North Lanarkshire Council.

The Site Recovery Group has met on seven occasions. Details are listed in Appendix x.

5. Progress on Independent Review recommendations

The independent review made five recommendations. In the rest of this section, those recommendations are set out, along with the progress made against them, as well as other actions taken by the council and progress.

Recommendation 1 – *Full and independently verified remediation of area designated HP50, entailing the removal of the contaminants present there or otherwise render the area safe from the risks from those contaminants.*

This recommendation related to the presence of polychlorinated biphenyls (PCBs) in one sample taken from the near the perimeter of the campus site.

The identified hotspot of PCB was removed, with the area capped and slabbed, and the works independently verified. In addition, the council commissioned further ground investigation work to validate the work undertaken by the independent review.

The work carried out on behalf of the independent review also found lead at location HP10 which they considered low risk. However, for completeness, the council instructed further validation and subsequently instructed remedial works which were completed and independently verified in October 2019.

Recommendation 2 – *We would be supportive of the decision of North Lanarkshire Council to open the schools on 12 August 2019 on the basis that further water sampling shall be undertaken to confirm the water supply is and remains compliant with drinking water quality standards… in accordance with Scottish Water requirements… and consistent with their methodology:*

(i) Within 14 days of the replacement of the main pipe within the campus
(ii) By the return to school after the October 2019 break, and
(iii) By the start of term in January 2020

All three of these milestones were met, with Scottish Water satisfied with the results. The council also monitors water quality every four weeks, with the whole system being flushed through regularly and the drinking water supply consistently meeting standards.

The independent review found some anomalies with the non-drinking water supply in a limited area of St Ambrose High School. During the council's extensive testing following the independent review, some anomalies were also discovered in the non-drinking water supply (using drinking water standards). These did not relate to chemicals but to sporadic high levels (again, measured against drinking water quality standards) of bacteria in some samples.

In response, the council commissioned an independent water assessment. The most significant factor identified by the expert consultants is an elevated cold water temperature to these areas, considered to be a consequence of long pipe runs and lack of frequent circulation of water.

Short-term actions taken by the council included switching non-drinking water outlets to the mains, rather than boosted, supply where possible and removing dead legs in the pipework. Lagging of the pipework was also undertaken.

The consultants' report contains a number of recommendations and the council is progressing these, with a delay in some works caused by coronavirus lockdown. The main

action points of the report are detailed in appendix 3 with an updated position on the current status.

A further Risk Assessment of the site is scheduled by the independent body for March 2021 to provide the group with a further updated position on the progress of the actions identified in the report however the report outlines the progress to date.

Recommendation 3 *was for Scottish Water*.

Recommendation 4 – *That North Lanarkshire Council make publicly available as soon as possible the periodic test results for the methane membrane since its installation.*

The council published these in September 2019 at its dedicated web page (www.northlanarkshire.gov.uk/BuchananStAmbrose). In addition, and in response to discussion by the Site Recovery Group, the council commissioned an independent expert to examine the membrane. This work was delayed by coronavirus restrictions and, due to the nature of the testing and the requirement for the facility to be unoccupied, works were scheduled to be undertaken during the school October break and the consultants findings will be reported to the Site Recvovery group at a future date.

Recommendation 5 – *the establishment of the Site Recovery Group*.

Other ongoing work in response to independent review and Site Recovery Group

In response to the independent review and the Site Recovery Group, and as part of its own onngoing programmes, the council has undertaken further work on the campus.

The water consultant's report is discussed above. In addition the council has carried out air quality monitoring for carbon dioxide and, at the suggestion of the Site Recovery Group, carbon monoxide. All results were satisfactory.

Extensive air sampling has been undertaken throughout the campus. In November 2019, 10 Tenax grab samples for volatile organic compounds all returned satisfactory results. Passive Tenax sampling for volatile organic compounds at six locations was in pace from January 17, 2020 until March 6, 2020. All results were satisfactory.

The monitoring reports for all sampling are available on the council's dedicated web page. The campus site is subject to settlement beyond the boundaries of the building (which is sited on a concrete slab). The council has been working with the build contactor of the schools to design an ongoing programme to address these issues and will be reviewed annually. This settlement has also had an impact on drainage on the campus and ground levels are being monitored over a 12 month period to identify ground movement across the 4 seasons to ensure all weather conditions are factored. It is anticipated this monitoring regime will be complete for March 2021.

The build contractor will continue to respond to any unscheduled works in line with its ongoing commitment to address these issues as they present.

As above, the council has established a dedicated web page. All relevant reports, as well as minutes from Site Recovery Group meetings, are published on this web page.

6. Commentary by Scientific Adviser

a) Heavy metals and urban soils

Heavy metals occur naturally in the environment. Some are elements essential for life e.g. copper and iron, whilst others are non-essential e.g. arsenic and lead. All are toxic at high concentrations. The level of heavy metal exposure that a person can tolerate before experiencing ill-health effects varies between elements and individuals. However, maximum tolerable daily intake levels for heavy metals recommended by organisations such as the World Health Organisation are generally chosen to protect the most vulnerable members of society.

Levels of both heavy metals and persistent organic pollutants (POP) nowadays exceed pre-industrial levels across the globe due to anthropogenic (man-made) inputs. Urban soils are particularly impacted from sources such as road traffic, construction, industrial activities and waste disposal [1]. Soils in Central Scotland are typically richer in heavy metals than those from rural locations because of the long history of heavy industry – coalmining, steelmaking, shipbuilding and chemicals manufacturing – in the area [2]. It is therefore to be expected that soils at the Townhead Campus, in common with soils from schools across the Central Belt, will contain higher heavy metals levels than soil from schools in more rural locations [3].

b) Principles of environmental exposure and risk assessment

Risk from environmental pollution is typically assessed using a source-pathway-receptor model. Expert environmental consultants will consider

- the source of a pollutant and the amount of the pollutant in the source
- the receptor (sometimes called the target) that might be affected by the pollutant
- the transport pathway(s) by which the pollutant could affect the receptor
- the transfer rate(s) along these transport paths, which indicate how much of the pollutant might reach the receptor

If the source is contaminated land and the receptor is the people who access the area, then three potential exposure pathways are usually considered – inhalation, dermal contact, and ingestion (Figure 1). In the UK, this type of assessment is often carried out using the Contaminated Land Exposure Assessment (CLEA) model [4]. The outcomes are used to estimate the potential risk to human health from contaminated sites and to provide a scientific basis for recommendations on whether, for example, further investigation or remediation of the site is required (depending on the intended land use).

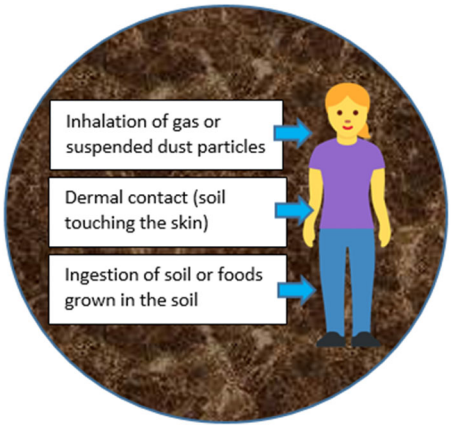

Figure 1: Pathways by which an individual could be exposed to pollutants in soil

If unacceptable risk is found it can be mediated by:

- removing the source of pollutant
- blocking the pathway linking the source and the receptor so that the pollutant is no longer able to reach the target.

c) Comments on actions by North Lanarkshire Council at the Townhead Campus

(i) Soil

Issue relating to soil at the campus included the identification of 'hotspots' (small, well-defined areas) containing polychlorinated biphenyls (PCB) and lead. The PCBs are a class of man-made organic (i.e. carbon-based) compounds used as non-flammable lubricants, plasticisers, waterproofing agents and dielectric fluids in electrical capacitors and transformers. They are ubiquitous environmental contaminants, usually present at low levels. The council's approach – to arrange for the contaminated soil to be excavated and taken away for disposal elsewhere – was appropriate because it removed the source of potential exposure. Proper monitoring appears to have been carried out around the areas to make sure all the contaminated soil had been successfully removed.

A second issue raised was possible transfer of heavy metals from contaminated soil into vegetables. Results for analysis of soil samples from the raised beds, greenhouse and polytunnel were provided by the council (taken from the environmental consultant RSK's Report, Appendix P). Although two elements were highlighted – beryllium and chromium – the maximum concentration of the first (1.8 mg/kg) was only slightly above average levels (1.42 mg/kg) for uncontaminated surface soils worldwide [5] whilst maximum levels of the second (34 mg/kg) were within ranges reported for urban soils in Glasgow (20-180 mg/kg) and other major European cities [6].

(ii) Air

The initial concern expressed by members of the Group was the potential for transfer of harmful volatile substances from waste material buried below the ground into air, in particular the air within the schools and community centre. This transport pathway should however be effectively blocked by the gas-impermeable membrane installed beneath the campus buildings. Any gases that do build up beneath the membrane are pumped into the open air. Ongoing testing of both the ventilation system and the integrity of the membrane should minimise risk by this route.

It is known that indoor air quality can be affected by release of volatile organic compounds (VOCs) from modern building materials and furnishings [7]. It was suggested at Meeting 1 that this should be explored as a potential source of exposure for pupils and staff. The Council responded positively. Active sampling was carried out at 20 locations by drawing air through tubes containing the

standard air sampling sorbent ‘Tenax’ for 30 minutes. A further four passive samplers, set up so obtain longer term measurements over a four-week period, were ‘appropriated’ before measurements could be obtained, but a new set of six were deployed. Results to date suggest that VOC emissions are not significant.

(iii) Water

The principle issue here, and the one that first brought the Townhead Campus into the public eye, was the presence of blue-tinged tap water. The cause of the colouration is corrosion of copper pipes. The phenomenon is well-known [8] but the details of how it occurs are complex and still a topic of active research [9]. Copper is an essential trace element but, as with all heavy metals, can be toxic at high levels. The maximum allowed copper concentration in drinking water is 2 mg/L [10].

The council’s response, regular flushing of the system, additional water quality checks, replacement of copper pipework used to supply drinking water with UPVC, and the removal (where possible) of ‘dead legs’ where water might stagnate, were all appropriate. However, a challenge, in terms of confidence-building, is the complexity of the campus water system, with different sources fed to different locations. For example, although all drinking outlets, kitchens etc are supplied directly from the mains, other parts of the building are supplied from a cold water header tank.

d) Conclusion

From a scientific perspective, the council have in general responded appropriately and well to the issues arising at the Townhead Campus. Where there was evidence of contamination, it was investigated, the cause identified, and appropriate monitoring or mitigation put in place. Where criticism could be levelled was in the communication of the reasons why specific actions were taken to the wider community, which could have improved understanding and minimised concern.

References

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[3] Measuring copper, lead and zinc concentrations and oral bioaccessibility as part of the Soils in Scottish Schools Project, C M Davidson, C Duncan, C MacNab, B Pringle, S J Stables and D Willison, *Minerals*, 2019, **9**, Article 173.

[4] https://www.gov.uk/government/publications/contaminated-land-exposure-assessment-clea-tool

[5] Background levels of soil beryllium in several countries, T Asami and M Kubota, *Environmental Monitoring and Assessment*, 1995, **17**, 32-38.

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[8] The blue water phenomenon, M Edwards, S Jacobs and R J Taylor, *Journal of the American Water Works Association*, 2000, **92**, 72-82.

[9] Application of GC-MS metabolic profiling to 'blue-green water' from microbial influenced corrosion in copper pipes, D J Beale, M S Dunn and D Marney, *Corrosion Science*, 2010, **52**, 3140-3145.

[10] What are the drinking water standards? Drinking Water Inspectorate, June 2017. Available to download at: http://dwi.defra.gov.uk/consumers/advice-leaflets/standards.pdf

7. Observations on levels of confidence within the schools

The Site Recovery Group were keen to gauge the reaction of pupils and parent reaction to the problems being experienced within the buildings and the wider site.

The Group welcomed the opportunity to receive a presentation from two members of staff from St Ambrose High School. The presentation was based on the findings of surveys of both pupils and parents in December 2019 and January 2020.The data presented related to perception and confidence levels and gave a very positive picture of the levels of confidence which both pupils and parents have in the school. While there was a clear recognition that the site/building issues had a significant impact on pupils in the short term, there was a strong desire to return to a normal state.

The head teacher of Buchanan High School reported on similar surveys which had sought pupil and parent feedback. The findings arising from these surveys were very similar to the St Ambrose feedback. The pupils and parents had strong levels of confidence in the school. 85% of pupils strongly agreed that they felt safe at the school. Around the same period Buchanan High School was subject to a routine visit from Her Majesty's Inspectors of Education. The outcome of the visit was a very positive report with inspectors finding the climate to be one of trust and nurture.

The chair of the Site Recovery Group met separately with the pupils who were members of the Group in order to give them the opportunity to air their views in the absence of parents and staff. In speaking about their feelings as to what had occurred at the campus, it was clear that they had been deeply affected by the events and the attendant publicity. They were deeply concerned about their health. There were fears among pupils which were being fuelled by the numerous rumours circulating at that time. They were also saddened that the reputation of the schools was being trashed on a daily basis. They were of the view that the schools were excellent and provided a great education and learning environment. The findings of the Independent Review alleviated their concerns to a large extent and they were exceptionally keen for everyone to move on and focus on ensuring that they would continue to receive a great education.

Average attendance levels at St Ambrose High School between 2016-2020 are:

- 2016/17 – 90%
- 2017/18 – 89%
- 2018/19 – 87%
- 2019/20 – 89%

Attendance did dip during 2018/19, particularly in the summer term when community concern about the campus was at its height. However, it reverted to previous attendance levels in 2019/20.

Over the same period attendance levels at St Ambrose High are generally higher than other Coatbridge schools.

The school roll at St Ambrose between 2016-20 was:

- 2016/17 – 1243
- 2017/18 – 1318
- 2018/19 – 1339
- 2019/20 – 1327

Data for ASN schools such as Buchanan High School is not so easily compared. This is because of the relatively small rolls and underlying health conditions of some pupils leading to longer or more frequent absences. However, attendance at Buchanan High School has remained consistent over the period from 2016/17 to 2019/20.

What is clear from the data is that the difficulties of 2019 have had had no impact on the rolls and attendance records of the schools.

Appendix 1

Members of the Site Recovery Group*

Present

Terry Currie DL	Chair
Dr Christine Davidson	Independent scientific advisor
Michael McGinley	Head teacher, Buchanan High School
Ellen Douglas	Head teacher, St Ambrose High School (until October 2020)
James McParland	Head teacher, St Ambrose High School
Kathleen Robb	Parent council, St Ambrose HS
Mark McQuade	Parent council, St Ambrose HS
Katrina McGhie	Parent council, Buchanan HS
Andrea Ford	Parent, St Ambrose HS
Paul Breslin	Parent, St Ambrose HS
Anita Cassidy	Parent, Buchanan HS
Angela Boyd	Staff
Frances Mullen	Staff
Louise Brown	Staff
Sharon Harvey	Staff
Bernard Bell	Staff
Fr Michael Kane	Chaplain
Louise Elliot	Pupil
Gabriel Kinta	Pupil
Josh Petrie	Pupil
Demi Kelly	Pupil
Niamh Carroll	Pupil

Liaison between the SRG and Council: Matt Costello
Clerk: Martine Ryan

*from establishment of group until October 2020

Appendix 2

Dates of Site Recovery Group Meetings

Tuesday 10 September 2019

Tuesday 22 October 2019

Tuesday 19 November 2019

Tuesday 10 December 2019

Tuesday 28 January 2020

Tuesday 16 September 2020

Tuesday 17 November 2020

Appendix 3

Recommendations from independent water system report

High Risk

Section	Recommendation	Completed Date	Management Response
6	Ensure water is stored at 60˚C and returns at a minimum of 50˚C. Currently at significant risk of bacterial growth in areas where return system is not balanced correctly. (HSG 274 Part 2: Para 2.82 and Table 2.1)	Outstanding – Circulating system failing in places. See Management Response	The design of the system is such that due to the length of the runs there will always be a drop in temperature on the return. We have been managing the position to ensure that that the risk of bacterial growth is minimised by increasing the flow temperature which means that the return level is above 50C, and since January 2020 (based on HBE monthly monitoring) no hot water has been returned below 53 C, guidance from CIBSE is that it should be above 50C. As a further mitigation/management action, we will investigate if it is possible to increase the speed of the pumps to further assist in maximising the return temperature.

Medium Risk

Section	Recommendation	Completed Date	Management Response
3	A site specific written scheme should be prepared to ensure that a full description of the preventative control measures and all documentation associated with the management of legionella are easily identifiable and that they detail the location	December 2019	The Council published a policy for the management of Legionella in December 2019 outlining the approach to be adopted in relation to water management. This is available to view on the Council website. In addition, the contract

	where all documents are located. The written scheme should include; a copy of the company legionella policy, the current legionella risk assessment location and the status of all remedial works identified, the list of control measures required along with their frequencies and the operational parameters, the location of the schematic drawings for all water systems, a response document to show what actions should be taken in the event that the water system is not operating as designed and a detailed account of what will be audited, how often and by whom		that the Council has with HBE our term contractor for management water quality, explicitly follows the HSE Approved Code of Practice – L8. Each establishment will have on site a copy of the Water Quality Risk Assessment which has schematic dwgs etc. along with a logbook providing monthly reports from HBE. In addition, a further log sheet is provided to note that the agreed flushing arrangements are being undertaken. As part of the monitoring regime with HBE, should any abnormalities arise during a monthly visit these are picked up immediately the report is received from the contractor by the Maintenance Officer and in turn reviewed by the coordinator and any remedial actions are taken. The report undertaken by Chemtech was carried out in January and since then weekly flushing has taken place and records are held on site
3	Inadequate management, lack of training and poor communication are all contributory factors in outbreaks of Legionnaires' disease. It is therefore important that the people involved in assessing risk and	October 2020 for FSS staff and December for Maint staff	All Maintenance staff have been trained in the management of water quality via Legionella Awareness and other relevant training. In addition to this, further training is being rolled out to all Facility Support Staff involved in regular

	applying precautions are competent, trained and aware of their responsibilities. A training plan for all appropriate staff should be prepared and reviewed regularly		flushing and is to be completed by the 30th of October 2020. Refresher training for Maintenance Officers to be complete by December 2020
3	Formulate a written scheme and legionella policy in line with HSG274 Part 2 Legislation	Complete - Comprehensive control scheme in place from December 2019.	The points above cover this
3	Ensure that all control measures outlined in Section 10 Control Scheme are implemented at the recommended frequency.	December 2019	Complete – Comprehensive control scheme in place from December 2019
4	Please ensure that all mains water supplies to the wet fire system are separated by a double non return valve from all other mains feeds to the building. This could not be determined from pipework drawings. (Scottish Water Byelaws 2014)	Complete	Complete – check valve installed
5	Regular(annual) turn-over tests are required to determine the stored volume required. (HSG 274 Part 2: Para 2.36 and Scottish Water Byelaws 2014)	Turnover test completed by Chemtech during September 2019	Complete
5	Replace CWST hollow support pipes. These have been identified as a possible source of contamination due to the potential for water to stagnate internally within the pipes. (UK Department of Health Alert (EFA/2013	Complete – Hollow support pipes have now been replaced	Complete

5	Install drain valve on line to CWST Booster pump pressure vessel. (HSG 274 Part 2: Para 2.39)	Complete – drain present.	Complete
4,5,6	Lag all accessible pipework to reduce any possible thermal gain or loss. (HSG 274 Part 2: Para 2.36)	Complete – all pipework inspected is now insulated	Complete
6	Annually inspect calorifiers internally. (HSG 274 Part 2: Table 2.1)	To be picked up at next boiler service visit	This will be incorporated as part of the annual boiler servicing programme
7	Flush all rarely used outlets at least once per week for a minimum of 2 minutes and record this action once complete. (HSG 274 Part 2: Para 2.78)	Complete	Being picked up by FSS staff as part of weekly flushing
7	Remove outlet and associated pipework of dead leg. Please refer to Hot & Cold Outlets section for location and details of dead legs. (HSG 274 Part 2: Para 2.77)	All dead end pipework removed – various valves remain isolated at disabled toilets.	Complete all dead legs removed
7	Ensure hot water outlet temperatures are in the 50-60°C range. Please refer to Hot & Cold Outlets section for temperatures. (HSG 274 Part 2: Table 2.1)	Outstanding – issue with circulation remains. Now complete	Complete – See comments above
7	Ensure cold water outlet temperatures are below 20°C after 2 minutes through improved insulation and system design. Please refer to Hot & Cold Outlets section for temperatures. (HSG 274 Part 2: Para 2.6)	Temperatures have improved significantly – several are still too high.	Complete - Monitored by HBE as part of monthly visit
7	Please provide access to all TMVs. Please refer to Additional Comments within Hot & Cold Outlets	Various TMVs remain difficult to access.	All TMV's serviced Feb 2020

	section. (HSG 274 Part 2: Para 2.34)		
7	Ensure TMVs are serviced as per manufacturer's instructions. (HSG 274 Part 2: Table 2.1)	Feb 2020	All TMV's serviced Feb 2020

Low risk

Section	Recommendation	Completed Date	Management Response
4,5,6	Label all valves and all pipework wherever possible. (Scottish Water Byelaws 2014)	Outstanding -	Programme to be developed
5	Reconfigure Laboratory Tank pipework and position inlet in raised chamber, above weir overflow. (Scottish Water Byelaws 2014)	Complete	Complete
6	Create access points and check the temperature at the top, middle and base of the calorifiers to determine any signs of stratification. (HSG 274 Part 2: Para 2.25)	Complete	Complete
6	Replace the pig-tail piece of pipe to the calorifier gauge with a piece of short, straight, copper pipe. (HSG 274 Part 2: Para 23)	Complete	Orders issued to replace this pipe – now complete