ABERDEEN CITY COUNCIL

COMMITTEE	City Growth and Resources
DATE	21 June 2022
EXEMPT	No
CONFIDENTIAL	No
REPORT TITLE	Supply Chain Volatility
REPORT NUMBER	RES/22/131
DIRECTOR	Steve Whyte/Gale Beattie
CHIEF OFFICER	John Wilson/Craig Innes
REPORT AUTHOR	John Wilson/Mel Mackenzie
TERMS OF REFERENCE	1.1.7, General Delegation 8.7

1. PURPOSE OF REPORT

1.1 To provide an overview of current market conditions and supply chain volatility and the risks and impacts to the Council financially and in terms of our procurement workplans. This includes details on approaches to mitigating these risks and implications for the approved capital programmes, capital and revenue costs.

1.2 This report focuses exclusively on the direct institutional impact. The global external factors are impacting on the City's citizens and businesses and due regard will be given to how the council can mitigate that impact via a report to June Council on the use of the Energy Fund as well as within a report to August Council.

2. RECOMMENDATION(S)

That the Committee: -

2.1 Note the global external factors that are having a negative impact on capital and revenue costs, including the delivery of Capital programmes / projects in terms of their budget and delivery timelines;

2.2 In light of these external cost and time pressures to instruct the Chief Officer - Capital to review the approved General Fund and Housing Capital programmes/projects in terms of timeline delivery and financial viability and to consider the impact on service delivery as a result of revised delivery timelines.

The review will be informed by the following criteria;

- Investment, why are we doing it / meeting outcomes
- Economic, value for money
- Commercial, procurement / delivery mechanism
- Environmental, inclusive of Net Zero

In addition, cognisance will be taken of where each project currently sits within its full life cycle; i.e. is it at feasibility stage, design development or construction and whether there are any interdependencies;

2.3 To instruct the Chief Officer - Capital to report the outcome of the review, following completion of recommendation 2.2, to the Council meeting on 24 August 2022, within the report being prepared by the Chief Executive on the Policy Statement "Working in Partnership for Aberdeen" and its impact on the Council's Commissioning Intentions, Service Standards and Budgets for 2022/23;

2.4 In advance of report detailing the outcome of the review in recommendation 2.3, approve that the Director of Resources may reprofile capital projects in consultation with the Chief Officer – Capital and Chief Officer – Finance and the Convener and Vice Convener of City Growth and Resources where supply chain volatility may lead to additional cost or revised timelines;

2.5 Note that the Council will request an opinion from our external auditors on the impact of this from a value for money perspective;

2.6 Note the mitigation actions to be adopted as detailed in paragraph 3.19 to 3.27;

2.7 Note that the Chief Officer – Finance instructed a London Stock Exchange (LSE) announcement in respect of this report, drawing attention to the potential it has to impact upon the financial resources of the Council;

2.8 Note that the Chief Officer – Finance will include an estimate of the financial implications of supply chain volatility in the Quarter 1 financial performance report that will be reported to this Committee on 4 August 2022;

2.9 Instruct the Director of Resources to identify, implement or recommend appropriate actions in addition to those already identified in this report, to mitigate the impact of the issues described in this report to ensure a balance budget is maintained for 2022/23.

2.10 Instruct the Director of Resources to include the issue of ongoing uncertainty re inflation within bid documentation and request an initial meeting for any successful bids to discuss how the ongoing inflation risk will be jointly managed between government and the council.

2.11 Note that the Roads Maintenance programme has been reviewed in accordance with the cost pressures and is presented to the committee in another report on this agenda (OPE/22/098)

3. CURRENT SITUATION

Background

3.1 A combination of factors including ongoing market impacts from Covid & Brexit, current inflation rates and the invasion of Ukraine affecting access to supply markets in Russia, Ukraine and surrounding area, have led to a cycle of market and price volatility and shortages across many commodities which is having a negative impact on delivery of capital projects, budgets (General Fund and HRA), on revenue expenditure in the delivery of services and procurement processes carried out for affected commodities.

3.2 The thirty-year high inflation across many parts of the world is presenting a significant challenge for organisations. As at March 2022 the rate of inflation was at 7%, the monetary policy report published by the Bank of England in May 2022 estimates that inflation may rise to 10% within the current year and the economy will slow as a result. The below diagram from the report shows that inflation is anticipated to fall next year and be within the 2% target level in two years' time.

3.3 The Bank of England, in response, has increased the base interest rates for bank lending three times since January in order to control inflation. The rate is now 1% (up from 0.25% in January). It is not yet certain if this will address the inflation pressure in the timescale predicted given the complex set of market conditions.

3.4 The global market is continually evolving in these uncertain times, and it is difficult to predict how long markets will continue to experience this level of volatility i.e., the full impact of the situation in the Ukraine is extremely difficult to anticipate and it remains to be seen whether this will extend past 2022. However, if inflation decreases as anticipated in 2023 then this would indicate more stable markets. We are reliant on a review of a range of market information, financial data and statistics to inform pre-procurement activity to allow for scenario planning and assessment of risk in terms of each potential scenario. Whilst markets continue working to recover from the impacts of these factors, we need to ensure that risks are recognised, documented and procurement activity is managed to try and mitigate the risk to the organisation. As the current global market situation demonstrates we also need to be aware of geopolitical risk and factor those into scenario planning and assessment of risk related to procurement.

3.5 Geopolitical supply chain risk covers a range of events driven by conflicts, political issues and actions across the world, monitoring and assessment of geopolitical risk is difficult but can be built into supply chain management practices. Geopolitical risks vary widely and for obvious reasons, wars and revolutions get the most attention however, political issues and actions can also negatively impact supply chains and markets. To ensure continuity of our supply chain we will need to build up supply chain management practices to include monitoring of any geopolitical situations that may arise and assess how these could impact our supply chain and develop supply chain continuity plans, to further develop resilience and increase the ability to withstand unpredictable threat or change.

External Factors affecting Supply Chain

3.6 Within and across the Council we have experienced and are continuing to experience a wide range of factors that are affecting programme delivery and cost. These include;

- Statutory Interventions: In the early stages of the Covid-19 pandemic government instructed that construction projects should be stopped, with new work practices introduced (safe distancing) when work resumed. To comply with this guidance, the Council generally offered extensions of time to any contracts on site at this time.

- Statutory and Ongoing Working Practices: Once the initial shut down period had passed, the Government introduced self-isolation of contractors and their sub-contractors' staff (due to Covid). An example of this is where a member of a construction squad, such as a bricklayer, tested Covid-19 positive, this led to the whole squad having to self-isolate to reduce the risk of spreading the disease. Although works had recommenced at this stage, compliance with the new working practices generally resulted in contracts progressing at a slower pace than before the pandemic.

- Labour Market Changes: Skilled labour shortages across all sectors. Aberdeen to an extent has been a victim of its own success whereby a significant share of construction work is borne by contractors and sub-contractors who are out with the local area. In other words, it costs them more to work here. The local contractors, due to the size of their organisations and their experience, are limited to the size and type of contract that they are able to deliver.

- Transport and Logistics: Increased delivery timelines on global delivery times due to the Covid impact on shipping and dock workforces, and the knock-on effect of a large container ship getting stuck in the Suez Canal.

- Raw Materials: Steep increases in the price of raw materials.

- Commodities: Steep increases in the price of typical construction materials such as timber, concrete and steel, and their by-products.

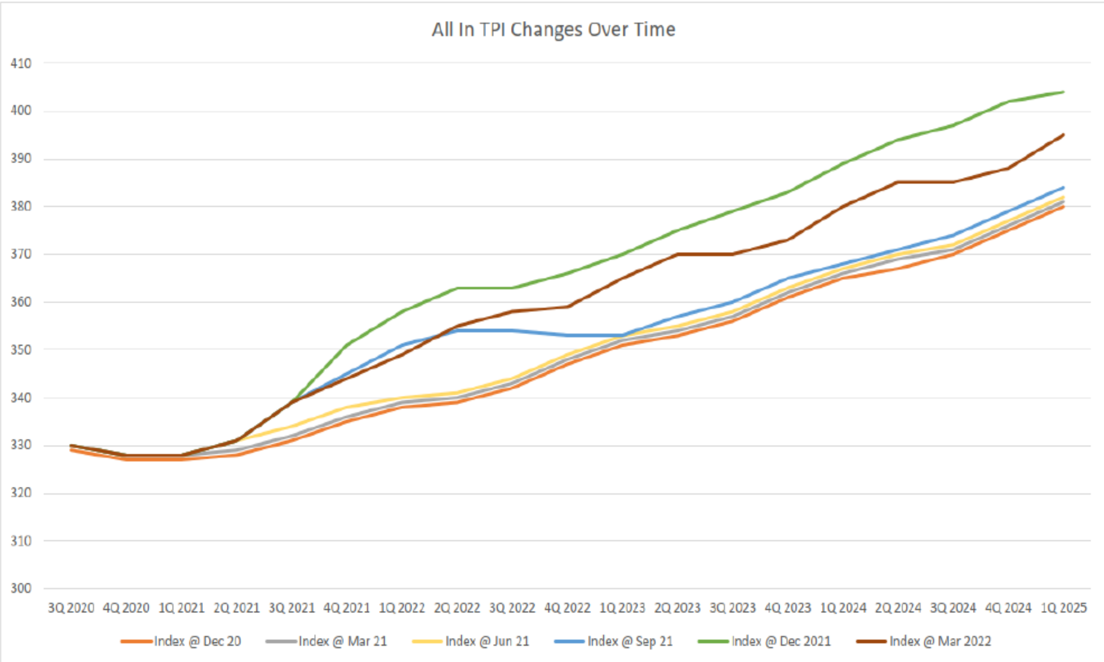
- Energy and Utilities: Increased energy costs to manufacture and transport products.

- Government Fiscal Policy: Changes from 1 April 2022 when rebated fuel commonly referred to as “red diesel” can no longer be used. This equates to an increase of circa five times as much duty as before.

3.7 What this means in practice is that officers have seen price increases across the sector in rates for plant, labour and materials which is unlikely to slow down in the short term.

3.8 In the last 6 months Building Cost Information Service (BCIS) has started to recognise the impact of Covid and Brexit where a sharp rise in construction tender inflation can be seen, the indices from Q4 2021 to Q1 2022 were illustrating a price increase of 1.7%, but this tender price increase forecast does not factor in the conflict in Ukraine and recent fuel price rises so the true increase is likely to be much higher.

BCIS



Examples of Commodity Impacts

Energy

3.9 A significant share of global energy commodities are sourced from Russia, production in Russia accounts for more than 10% and 15% of global crude and natural gas production respectively. The repercussions of the Russian-Ukraine conflict include restricted global supply through sanctions which has led to a surge in the wholesale market price of oil and energy commodities, which in turn, has led to a steep increase across the Electricity Supply and Gas Supply industries. The increased energy pricing also has a significant impact on other commodity areas, where they require large energy inputs to produce / manufacture e.g. metals.

3.10 In terms of the national energy contracts (Scottish Procurement under Crown Commercial Services Framework) that the Council are signed up to there is a robust process in place for managing risk of price increase to the customers with a Risk Management Committee overseeing the performance of the purchasing strategy but given market conditions there will be a significantly increased price over this financial year and price changes have been identified in the April invoices now being paid by the Council The trading strategy overseen by the Risk Management Committee has provided a good level of protection from the unprecedentedly extreme and volatile market conditions. Comparatively, securing a fixed price for gas is becoming more difficult and a customer looking to secure Gas from April 2022 for 12 months would be quoted circa 11p/kWh which is well in excess of the current agreed framework rate of 5.2618p/kWh and Electricity would be quoted circa 33.9p/kWh which again is well in excess of the current framework rate of 8.043 p/kWh.

Food

3.11 Russia and Ukraine together account for a substantial chunk of global production for a number of agricultural commodities. The invasion has reduced the global supply of foodstuffs and, considering the length of agricultural cycles, current disruptions could affect food commodity prices well beyond the short term, as well as the availability of particular products. Suppliers have seen significant increases across a number of product lines in response to commodity price rises. The Scottish Government consultation on the Local Food Strategy for Scotland closed in December 2021 and we await the results, current market conditions and the impact that global issues have on current supply chain further highlight the need to connect Scottish producers with buyers. For the local food strategy to be effective it will need to ensure development of short and circular supply chains. Short supply chains would connect Scottish food producers with public or private buyers in local or regional markets, but ultimately requires significant investment in the establishment of suitable distribution networks and processing facilities for Scottish produce, so that Scottish food producers could meet the needs of customers. Increased costs overall of 7-9% are expected to be built into the forecasts for expenditure in 2022/23, when the Quarter 1 report is presented to the Committee in August.

Bitumen

3.12 Increased oil prices and the invasion of the Ukraine have led to turmoil in the supply base throughout March and April for bitumen that also had an impact on coated roadstone product from quarries. As the Council procure these commodities through Scotland Excel frameworks, we have remained in close contact with them throughout the period of uncertainty, and they along with ourselves have been working with key suppliers to ensure that supply was not disrupted throughout this period. This has meant that the Roads team have been able to secure supply throughout the period of uncertainty through our existing supply chain, it is currently anticipated that a further increase is likely to be requested by suppliers in July 2022. The Roads Maintenance programme has been reviewed in accordance with the cost pressures and is presented to the committee in another report on this agenda (OPE/22/098). The Service continues to monitor costs of goods and services in relation to the programme delivery.

3.13 The above three commodity examples are only a small sample and the same impacts apply to a much wider range of commodities as alluded to in paragraph 3.6. This includes both raw materials and manufactured by-products.

3.14 In summary, the commodity impacts have implications for both revenue and capital budgets across all services.

Procurement Issues

3.15 Taking consideration of all the above, officers have observed that contracting parties are necessarily having to be pass these increased cost/delay impacts through to the Client (procuring organisation).

3.16 This has led to the following;

- An increased need to pre-order materials to secure their price and delivery due to high market volatility.
- "Over heated" markets, with less tender competition due to an inability to service all demand. This leads to significant rate increases from tendering organisations located within the local area. We are seeing this situation worsened from tendering organisations and their sub-contractors located out with the local area.
- Fixed pricing is coming with a premium, dependent on how the tendering organisations deem the risk of price rise increase.
- Contracting Organisations are now submitting tender offers for acceptance with a much shorter period.
- Lead times for projects are necessarily having to extend.
- Extended programmes of work require an extended period of 'preliminaries' thereby adding to a project's overall cost increase.
- The shortage of materials may impact the sustainability integrity of projects should alternative materials/products need to be sourced.

3.17 These challenges have been experienced across markets and affected procurement of Goods, Services and Capital contracts. Assessment of the current market conditions prior to commencing the procurement including engagement with key suppliers within those markets should assist in developing pricing mechanisms which have a degree of flexibility to stimulate the competitive tension required. Use of less traditional contract mechanisms to ensure a higher degree of flexibility may also be prudent for example increased use of Dynamic Purchasing Systems/E-Auctions.

3.18 Exceptional price increase requests are another key challenge, with a number having been submitted across several key contracts/framework agreements, the Commercial & Procurement team have developed an internal process to manage these which has been communicated to all Delegated Procurers. The process places stringent requirements on what is necessary to agree any proposed increases in pricing to ensure that any price increase is offset or mitigated in the first instance, and it is limited to the proportion of the price that equates to the price element or commodity that has experienced the rise in pricing linked to relevant indices (where possible). Price increases when agreed will be added to a tracker held by the Commercial & Procurement Service, the tracker will be shared with Finance monthly so that data can be utilised as appropriate for budget monitoring.

Mitigation Options

3.19 In managing the capital programme, applying value engineering to any capital project may successfully deliver a significant saving to bring it back within its current approved budget. The budget will have optimism bias or contingency built into initial costings that may also provide a degree of protection from cost increases from inception to letting of contract. However, in light of the significant cost increases that have been outlined, officers expect the availability of specific contingency provisions and value engineering to be only partly successful. It is forecast that there will still be funding gaps across many programmes/projects.

3.20 Alternatively it may be appropriate to consider whether the delivery of a capital project can be delayed or phased such that the desired outcome can still bring benefits but to be derived over a longer timeline, potentially avoiding a short-term inflationary and supply chain set of circumstances that could provide better value in the future.

3.21 Consideration should also be given to procurement options whereby the cost pain/gain can be shared with the other contracting party and also to increased use of the two-stage (restricted procedure) and negotiation to assist in ensuring inflation and programme risk are captured and strategies are considered to offset.

3.22 From a capital perspective the Committee will be aware that officers flagged the emergence of some of these cost pressures last year and advised the need for an additional contingency budget. In the case of the General Fund, this is currently approved at £25m, profiled with £20m in financial year 2022/23 and £5m in financial year 2023/24.

3.23 In respect of revenue spending, while the General Fund budget maintains a level of contingency to address unexpected or unplanned expenditure this only provides resilience to a value of £4m and the there is much that can yet happen in the financial year that is uncertain, including the value of a local government pay award, the extent of winter and extreme weather, which has previously increased spending late in financial year.

3.24 Options to mitigate spend include reducing service standards for our services, stopping or reducing services, closing or mothballing properties and facilities or carrying out less work to manage within the existing budgets. Alternatively, changing fees and charges for services may bring additional income into the Council, by passing on the cost pressures to our customers. Consideration of these type of options should be made in the context of our overall financial position, not just in looking at the supply chain volatility described in this report. This will be done as part of the quarter 1 Financial Performance report that the Committee will receive in August 2022, and the Extended Corporate Management Team should act to mitigate the cost pressures to support the recommendation in that report.

3.25 This could mean fewer choices for service users, fewer facilities open, lower energy bills, fewer staff employed, a change in eligibility or access to services, a longer time for work and services to be completed, increased cost for a customer, reduced volumes purchased from suppliers.

3.26 It was agreed by the Risk Board at its May meeting that the supply chain risk that was captured at cluster level on the Commercial & Procurement Service Risk Register should now be moved up to the Corporate Risk Register given the global market situation. An Additional control action identified to support risk mitigation is the creation of a data bank for commodity pricing which will allow for ready access to commodity pricing data as an additional tool to support decision making going forward as decisions relate to procurement activity or in agreeing price increases and it is proposed that work would be carried out following establishment to link this to our existing contracts.

3.27 The data bank will assist all functions within the Council with business planning as it will show key metrics and trends relating to price fluctuations for base commodities as shown below (Source Chartered Institute of Purchasing and Supply April 2022). Such examples are copper wiring, plastics for ICT, wheat and barley for school catering etc. The proposed control actions will embed supply chain management practices to prepare for future disruptions to support resilience and good risk management practices across the supply chain and the Councils contracts in times of disruption. The control actions will need to evolve over time to respond to any changes in external factors and as current unknowns become known.

Commodity		Unit	April 2022	Mar 2022	Month-on-month change	April 2021	Year-on-year change
Crude oil	Brent	US$/barrel	104.89	117.24	-10.5%	64.79	61.9
Natural gas	Henry Hub units	US$/mMTU	6.60	4.90	34.7%	2.66	147.9%
Aluminium	99.7% purity units	US$/tonne	3,256	3,537	-7.9	2,324	40.1%
Copper	Grade A units	US$/tonne	10,182	10,237	-0.5	9,336	9.1%
Nickel	99.8% purity units	US$/tonne	33,287	37,783	-11.9%	16,481	102.0%
Iron ore	62% iron CFR China units	US$/dry tonne	155.43	151.20	2.8%	173.48	-10.4%
Steel, scrap	No1 heavy melting, Chicago market units	US$/ 10 tonnes	5,200	5,024	3.5%	4,079	27.5 %
Rubber	Ribbed smoked sheet units	US cents/kg	209.44	212.17	-1.3%	215.35	-2.7%
Sugar, crystal	Sao Paulo, Brazil units	US$/50kg bag	29.67	27.73	7.0%	19.48	52.3%
Cotton	A-Index, US units	US cents/ pound	154.72	141.13	9.6%	90.73	70.5%
Wheat flour	Kansas City USDA units	US$/bushel	1134.51	1,079.85	5.1%	652.87	73.8%
Rapeseed	Canada, ICE futures	CAN$/tonne	1,234.67	1,180.67	4.6%	881.39	40.1%
Palm oil, unrefined	Malaysia units	US$/tonne	1,682.74	1,776.96	-5.3%	1,078.05	56.1%
Soybeans	US units	US cents/ bushel	1,677.68	1,671.89	0.3	1477.81	13.5%
Corn	US units	US cents/ bushel	768.58	726.58	5.8%	607.97	26.4%
Rice	Vietnamese 5% broken, white rice, milled units	US$/tonne	402.38	391.67	2.7%	488.17	-17.6%

4. FINANCIAL IMPLICATIONS

4.1 Financial implications will arise for the Council from a period of such steep inflation on prices generally, and cost implications on commodities covered within the report are highlighted where known. Based on the operational costs and income experienced in the period to 30 June the Quarter 1 Financial Performance Report will draw together all elements of the financial position with a forecast to the end of the year. It will make recommendations or highlight actions taken to mitigate the risk of cost pressures described in this report and it is recommended that the Director of Resources ensures this happens.

4.2 Contingency budgets are included in both the General Fund Revenue Budget and the Capital programmes however they may prove insufficient to allow continued progression of service delivery and capital projects in line with approvals given at the Budget meeting in March 2022. Officers will endeavour to progress works within the approved budgets, however there may come a point where there is insufficient funding within the approved programmes. Increasing the capital budgets would require an increase in financing costs which would have to be considered in the affordability context of the revenue budgets.

4.3 The increasing interest rate environment raises the cost of borrowing for capital works, which has a direct impact on the Council's revenue budgets, therefore a risk of a double impact, not only the higher cost of the project itself increasing the amount of borrowing that is required, the rate at which borrowing will have to be repaid is likely to increase too.

4.4 Consideration too needs to be given to the matter of value for money, and in an environment with escalating cost of the scale described in this report the overall cost benefit analysis needs to be carefully considered as the Council could be criticised for spending more than it had planned. Professional judgement and advice will be vital in making an assessment of this and the Chief Officer – Finance has sought an opinion from the Council's external auditor on the matter.

4.5 The Council in applying for funding, and particularly as it is common that any grant funding awarded is fixed, needs to be very clear that it is done taking account of the supply chain volatility as described in this report. Clear assumptions and description of what is included in the optimism bias should be included so that this can be compared and referenced as projects progress in such a volatile environment.

5. LEGAL IMPLICATIONS

5.1 There are no direct legal implications arising from the recommendations of this report, however there is a need to review procurement options and contractual clauses going forward for new contracts. Officers including those within the Capital team will work closely with colleagues in Commercial and Procurement and the CPS legal team to consider the best way forward in legal terms. This could take the form of drafting new contractual clauses which takes account of cost risk transfer, but which hopefully provides better cost certainty for both contract parties.

5.2 Officers will consult with legal colleagues including CPS legal where necessary for the purposes of implementing the mitigation measures outlined in this report.

6. ENVIRONMENTAL IMPLICATIONS

6.1 There are no direct environmental implications arising from the recommendations of this report, however as mentioned in paragraph 3.15 where alternative products/materials may have to be sourced in the short term, these may have a higher environmental footprint than those products/materials which were originally preferred.

7. RISK

7.1 The assessment of risk contained within the table below is considered to be consistent with the Council's Risk Appetite Statement.

Category	Risks	Primary Controls/Control Actions to achieve Target Risk Level	*Target Risk Level (L, M or H) *taking into account controls/control actions	*Does Target Risk Level Match Appetite Set?
Strategic Risk	Supply chain volatility impacting on delivery of services/ability to deliver project	Market Engagement activity prior to procurement. Reduce spending, increase income, stop or reduce or delay programmes / projects, increase income / pass cost increase to customer	M	Yes
Compliance	Failure to be able to comply with project requirements	Increase site visits and monitoring of the construction works. If required, review alternative options as soon as possible	L	Yes
Operational	Commodity shortages affecting operational capacity, capability.	Ongoing engagement with Framework hosts, Suppliers, Procurement & Services re alternative products or delivery methods	M	Yes
Financial	Escalation of costs	Development of suitable price mechanisms. Use of Business Intelligence to predict market changes/trends. Price Increase Request Process.	L	Yes
	Differing market conditions depending on commodity/service	Market engagement/use of business intelligence to assist in predicting market changes and trends.	M	

Reputational	Programmes/projects being delayed or stopped	As above.	L	Yes
Environment / Climate	Failure to consider sustainable options due to costs.	Ensure all contracts consider environmental considerations, and early market engagement is conducted to seek market intelligence.	M	Yes

8. OUTCOMES

COUNCIL DELIVERY PLAN	
	Impact of Report
Aberdeen City Council Policy Statement	Supply Chain Management Practices and effective procurement planning are enablers for the delivery of the outcomes and regular review will ensure that the practice and planning processes are robust.
Aberdeen City Local Outcome Improvement Plan	
Prosperous Economy Stretch Outcomes	Consideration is given to the Stretch Outcomes within the LOIP at the development phase and any impacts from market volatility will be a factor in these considerations.
Prosperous People Stretch Outcomes	
Prosperous Place Stretch Outcomes	
Regional and City Strategies	Supply Chain Management Practices and effective procurement planning are enablers for the delivery of the outcomes across a number of key strategies.

9. IMPACT ASSESSMENTS

Assessment	Outcome
Integrated Impact Assessment	Not required
Data Protection Impact Assessment	Not required
Other	Not required

10. BACKGROUND PAPERS

10.1 Capital Programme 23 September 2020: Covid-19 pandemic impact on the Capital Programme: report no RES/20/134.

11. REPORT AUTHOR CONTACT DETAILS

Name	John Wilson
Title	Chief Officer – Capital
Email Address	JohnW@aberdeencity.gov.uk
Tel	01224 523629

Name	Melanie Mackenzie
Title	Strategic Procurement Manager (Interim)
Email Address	MeMackenzie@aberdeencity.gov.uk
Tel	07795 316388