

Risk Register

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|----------------------|-----------------------------|
| Project/Contract: | WCC Urban Cycleways Project |
| Project/Contract ID: | N/A |
| WCC Office: | WCC |
| WCC Lead: | Paul Barker WCC |

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|---------------------------|--|-------------------|
| Document Date: | 15 September 2015 | |
| Supplier Lead: | Steven Knowles | Connected Capital |
| RM Specialist: | Matt White (Originator) Adam Ashford (Reviewer) | Connected Capital |
| Risk Tolerance Threshold: | 100000 | |

RISK REGISTER STATUS: DRAFT

| Rank | RID | Risk Title | Description/ Cause/ Consequence | Risk Owner | Risk Owning Org | Date Raised (xx/xx/xxxx) | Risk Status | Phase | Established Controls | WCC Tags | Current Exposure | | | Treatment Strategy | Residual (Target) Exposure | | | Commentary & Closure Statement |
|------|--------|---|--|------------|-----------------|--------------------------|--------------|--------------------------|--|----------------|------------------|------------|------------|---|----------------------------|------------|------------|--------------------------------|
| | | | | | | | | | | | Conseq. | Likelihood | Risk Score | | Conseq. | Likelihood | Risk Score | |
| 1 | Rsk_12 | Lack of business case resources | Description: There is a threat that there are inadequate resources available to complete all requirements for the business case. Cause: The cause of the threat is a large programme of works and very short timeframes for certain deliverables; procurement currently takes 3-4 months based on NZTA processes. Consequence: The consequence of the threat is late completion of deliverables, leading to late completion of the network and cost-overruns; inability to secure UCP funding. | GS | WCC | 10/08/2015 | Live - Treat | Project | Procurement strategy, panel of Contractors available. | Delivery | Very High | Very High | 25 | Revision to procurement strategy to allow expedited procurement is in progress; to be agreed with NZTA. WCC discussing with NZTA around procurement Governance arrangements to be finalised Programme management by WCC Programme Team (currently being established) | Very High | Low | 20 | |
| 1 | Rsk_60 | Lack of agreement at WCC on cycleway routes | Description: There is a threat that elected WCC members will not be able to agree on the preferred options, on individual routes Cause: The cause of the threat is differing viewpoints on the best option to proceed with in sections of the city Consequence: The consequence of the threat is delay to approvals process, leading to delay to start of DBC phase. | PB | WCC | 11/08/2015 | Live - Treat | Indicative Business Case | WCC Working Groups, made up of ward councillors. | Stakeholders | Very High | Very High | 25 | Working Groups to be established in each area. Prepare high-quality briefing material for the Working Group. Ensure good communications to manage queries received from Working Groups. Fall-back options developed if original option does not proceed. | Very High | Medium | 23 | |
| 3 | Rsk_15 | Pressure from negative publicity | Description: There is a threat that negative publicity/comments will lead to changes to designs or the works programme Cause: The cause of the threat is residents / drivers / pedestrians expressing negative attitudes to the project, for a variety of reasons. Community "Bikelash" Consequence: The consequence of the threat is Council will change the direction of the project in order to address the negative comments. | PB | WCC | 10/08/2015 | Live - Treat | Indicative Business Case | Public consultation; publicity and engagement. Working Groups. | Public / Media | Very High | High | 24 | Prepare public consultation and communications plans. Establish working groups. Engagement with champions. Good data collection to inform public Streamline delivery to get network in place ASAP. | High | Medium | 19 | |
| 3 | Rsk_16 | WCC political risk | Description: There is a threat that political influence will lead to changes to the programme. Cause: The cause of the threat is Council changing direction on the expected programme after local elections. Consequence: The consequence of the threat is delay to programme. | PB | WCC | 10/08/2015 | Live - Treat | Detailed Business Case | Council Transport Committee Meetings | Stakeholders | Very High | High | 24 | Establish Working Groups as liaison between project team and WCC. Provide robust information to public and candidates during the election campaign. Frequent workshops. Briefing paper for new council members November 2016. Robust PBC and masterplan | Very High | Medium | 23 | |

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|------|--------|---|--|------------|-----------------|--------------------------|--------------|--------------------------|--|--------------------|-----------|------------|------------|--|-----------|------------|------------|--------------------------------|
| 3 | Rsk_6 | Delay to statutory approvals (traffic resolution) | Description: There is a threat that design approvals for the physical works, especially traffic resolutions and parking issues, significantly delay construction. Cause: Significant community resistance to proposed traffic changes. Consequence: The consequence of the threat is the network will not be developed in accordance with the programme. | PB | WCC | 10/08/2015 | Live - Treat | Detailed Business Case | TUD Committee, Traffic Resolution Process (a 3-month process) | Legal / Compliance | Very High | High | 24 | Build traffic resolution approval timeframes into the programme, with 'float' to allow for any unknowns. Identify champions Manage political process; test requirements with Working Groups / WCC to assess appetite for proposed changes. | High | Medium | 19 | |
| 7 | Rsk_1 | NZTA Funding not approved in time | Description: There is a threat that NZTA/UCP funding for the cycleways will not be secured in time. Cause: The cause of the threat is due to protracted business case approval process at each stage; quality of deliverables produced. Consequence: The consequence of the threat is the cycleways network will not fully utilise UCP funding in the 3 year time limit. | PB | CC / WCC | 10/08/2015 | Live - Treat | Project | Project programme being developed to ensure timeframes will be met. Meetings with NZTA to ensure business case meets NZTA/UCP requirements | Delivery | Very High | Medium | 23 | Build sufficient "float" into programme. Steering Group meetings with NZTA. Ensure sufficient resources applied. Build Agency confidence through early engagement and quality of deliverables. Commence work on some routes (Hutt Rd) prior to funding approval being | Very High | Low | 20 | |
| 8 | Rsk_19 | Cycleway at bus stops | Description: There is a threat that interfaces with bus stops could be problematic. Cause: The cause of the threat is bus patrons will need to cross the cycleway in order to get on the bus, which may lead to incidents. Consequence: The consequence of the threat is injury to pedestrians or cyclists; poor publicity; reputation damage. | AA | CC / WCC | 10/08/2015 | Live - Treat | Indicative Business Case | IBC design standards | Health & Safety | High | High | 21 | Ensure consistency across network. Use best practice designs. Prepare training/safety materials prior to 'go live' date | High | Medium | 19 | |
| 8 | Rsk_20 | Cycleways do not meet safety LOS | Description: There is a threat that a motorist could still hit a cyclist using the cycleway. Cause: The cause of the threat is poor driving or design issues. Consequence: The consequence of the threat is injury or death to the cyclist; extreme public reaction; reputation damage to WCC. | TE | CC | 10/08/2015 | Live - Treat | Detailed Business Case | IBC safety standards | Health & Safety | High | High | 21 | Follow recommended design guidelines for target LOS | High | Medium | 19 | |
| 8 | Rsk_26 | Large changes to on-street parking | Description: There is a threat that the impact on current on-street parking will be high, and publicity will be negative. Cause: The cause of the threat is cycleway construction will lead to reduction in the amount of on-street parking. Consequence: The consequence of the threat is negative comments/outcry, calls to stop the project, pressure on elected members. | SC | CC / WCC | 10/08/2015 | Live - Treat | Indicative Business Case | Detailed parking surveys will be completed to establish the baseline parking levels within areas of the city. | Public / Media | High | High | 21 | Detailed graphs to illustrate existing parking levels, and expected parking levels following construction. Construction of community carparking may occur if parking impact is particularly high. Parking management techniques (pricing, time of day, restrictions) to maintain appropriate occupancy levels. | High | Medium | 19 | |
| 14 | Rsk_4 | Confidence in benefits modelling | Description: There is a threat that benefits associated with the cycleway projects have low confidence Cause: The cause of the threat is the assumptions made in relation to the project benefits. Consequence: The consequence of the threat is negative post-construction audit as actual BCR is lower than assessed BCR; loss of NZTA confidence | PB | CC / WCC | 10/08/2015 | Live - Treat | Project | EEM processes to determine project benefits Required BCR for cycling projects is 1.0 | Delivery | Very High | Low | 20 | Peer review of economic evaluation. Agree benefits with NZTA / WCC | High | Low | 16 | |

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| 17 | Rsk_46 | Land acquisition | Description: There is a threat that land acquisition takes longer than planned Cause: The cause of the threat is lack of agreement with affected parties Consequence: The consequence of the threat is a delay to the project and/or a substandard design | PB | WCC | 11/08/2015 | Live - Treat | Indicative Business Case | IBC | Legal / Compliance | High | Medium | 19 | Establish policy in relation to cycleways and community parking requirements. Determine location of property impacts during IBC phase onwards. Property impacts identified early in the project lifecycle so that impact on programme can be assessed early. Conduct staged construction to | High | Low | 16 | |
| 17 | Rsk_10 | Cost estimates higher than anticipated | Description: There is a threat that construction cost estimates will be significantly higher than forecast. Cause: The cause of the threat is unforeseen changes in the market cost for various items; incorrect assumptions during the estimating process. Consequence: The consequence of the threat is some projects using more of the budget than anticipated, which affects the possibility of all the programmed projects proceeding. | PB | CC / WCC | 10/08/2015 | Live - Treat | Indicative Business Case | Use specialist quantity surveyor to prepare cost estimates | Cost | High | Medium | 19 | Include contingencies for items of risk in the schedule. Designs to be developed to reduce level of unknown factors. | High | Medium | 19 | |
| 17 | Rsk_3 | Cyclist numbers do not increase as expected | Description: There is a threat that cyclist numbers will not increase as forecast after the infrastructure has been built. Cause: The cause of the threat is unrealistic assumptions about the uptake in cyclist numbers during the economic analysis; lack of accurate modelling information on cyclists; perceptions of time-savings associated with vehicle use. Consequence: The consequence of the threat is a poorly- | SC | CC / WCC | 10/08/2015 | Live - Treat | Operation | Transport modelling in accordance with EEM and modelling guidelines. Cyclist numbers are already increasing, so infrastructure improvements will help to attract more cyclists | Delivery | High | Medium | 19 | Peer review modelling in IBC | Medium | Medium | 15 | |
| 17 | Rsk_13 | Cycleway construction affects LoS for road users | Description: There is a threat that the impact of physical works will lead to large delays across sections of the Wellington network. Cause: The cause of the threat is traffic management at the various sites around the city leads to tailbacks and poor level of service for motorists. Consequence: The consequence of the threat is poor publicity | AA | CC / WCC | 10/08/2015 | Live - Treat | Programme Business Case | PBC and IBC | Stakeholders | High | Medium | 19 | Sequence implementation in PBC and IBC. BRT Construction coordination Develop coordinated TMPs | Medium | Low | 11 | |
| 17 | Rsk_23 | O/H line removal | Description: There is a threat that the programme for disestablishing the overhead trolley wires will impact the cycleway programme. Cause: The cause of the threat is that the programme for removal of the trolley wires is unknown. Consequence: The consequence of the threat is works on cycleways that are on the trolley bus route will not proceed until the trolley wires are removed. | SC | CC / WCC | 10/08/2015 | Live - Treat | Detailed Business Case | Liaison with GWRC in relation to the changes. | Stakeholders | High | Medium | 19 | Early identification if cycle route is on existing trolley bus route; build trolley wires into programme for the works. Monitor with GWRC. | High | Low | 16 | |
| 17 | Rsk_25 | WCC expectations of PBC | Description: There is a threat that the preferred programme options will not be adopted by WCC. Cause: The cause of the threat is differing expectations on the PBC programme. Consequence: The consequence of the threat is delay to the start of the IBC phase. | TE | CC / WCC | 10/08/2015 | Live - Treat | Programme Business Case | Working Group terms of reference | Stakeholders | High | Medium | 19 | Working Group fully briefed on the options to be presented. Discussions / workshops with WCC prior to submission of the draft PBC | High | Low | 16 | |
| 17 | Rsk_39 | Economic outlook | Description: There is a threat that overall economic outlook, or a significant event, could lead to funding for NZ cycleways being reduced. Cause: The cause of the threat is unknown economic events. Consequence: The consequence of the threat is the programme for the cycleways is greatly reduced; works are deferred; design of the network is delayed. | PB | CC / WCC | 11/08/2015 | Live - Treat | Project | NLTP and UCP | Delivery | High | Medium | 19 | Frequent communication with funding partners. | High | Low | 16 | |

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| 17 | Rsk_58 | Lack of agreement | Description: There is a threat that the consortium members will be slow to come to agreement on project scoping Cause: The cause of the threat is three consultants on the project. Consequence: The consequence of the threat is poor project performance | PB | CC / WCC | 11/08/2015 | Live - Treat | Programme Business Case | MOU | Delivery | High | Medium | 19 | Open negotiations with consortium partners. Steering group established, each with Jacobs, GHD, AECOM and WCC representative. | High | Very Low | 8 | |
| 17 | Rsk_7 | Cycleways not integrated with BRT | Description: There is a threat that cycleway requirements on BRT routes would be overlooked. Cause: The cause of the threat is current lack of coordination on the type of cycleways (widths and safety zones) and associated infrastructure required. Consequence: The consequence of the threat is that cycleways would not be integrated with BRT routes. | SC | CC / WCC | 10/08/2015 | Live - Treat | Indicative Business Case | Coordination meetings with BRT business case team | Stakeholders | High | Medium | 19 | Liaison with BRT project team. Assess constraints in discussion with BRT team. | Medium | Low | 11 | |
| 31 | Rsk_5 | Gaps in the network | Description: There is a threat that the new infrastructure will not be a continuous network Cause: The cause of the threat is a that it will take ten years to develop a well-established cycling network so some sections will be problematic; cyclists would move from high-quality cycleway to non-existent infrastructure. Consequence: The consequence of the threat is poor and negative publicity, reputation damage to WCC. | PB | WCC | 10/08/2015 | Live - Treat | Indicative Business Case | Project Programme and sequencing. | Delivery | Medium | High | 17 | Programming/sequencing work in the IBC will ensure gaps in the network are minimised. Comms and marketing of the cycleway. Promote skills courses to get new cyclists on board. | Medium | Medium | 15 | |
| 31 | Rsk_52 | RMA Consents not achieved in time | Description: There is a threat that consents will not be achieved in time. Cause: The cause of the threat is preferred project routes, ones that are on the critical path, not meeting RMA rules and policies. Consequence: The consequence of the threat is development not proceeding or is delayed | PB | WCC | 11/08/2015 | Live - Treat | Indicative Business Case | Engagement with consenting authorities | Legal / Compliance | Medium | High | 17 | Hold meetings with statutory authorities to advise of timing and to confirm about requirements. Choose routes that have low likelihood of delay due to RMA consents. Follow RMA process. Manage political process | Medium | Medium | 15 | |
| 31 | Rsk_30 | Unfavourable geometry | Description: There is a threat that the geometry of the cycleway will be unsuitable for the actual user speeds. Cause: The cause of the threat is Wellington's topography. Consequence: The consequence of the threat is many cyclists crashing due to the geometry. | SC | CC / WCC | 10/08/2015 | Live - Treat | Detailed Business Case | DBC design standards | Health & Safety | Medium | High | 17 | Identify areas designed with out-of-context geometry. Design cycleway to Austroads, NZTA standards. Install signage on sections where user speeds could be higher than design speed. | Medium | Medium | 15 | |
| 31 | Rsk_61 | Unknown risks | Description: There is a threat that unknown risks are not included in the risk register. Cause: The cause of the threat is project team overlooking unknown factors. Consequence: The consequence of the threat is an unrealistic cost estimate. | TE | CC / WCC | 24/08/2015 | Live - Treat | Indicative Business Case | SM014 Cost Estimation Manual | Cost | Medium | High | 17 | Provide contingency in cost estimate to allow for unknown factors. | Medium | Low | 11 | |
| 35 | Rsk_34 | Problem identifying route | Description: There is a threat that no one route will be the preferred option during the IBC phase. Cause: The cause of the threat is each potential route has numerous favourable and unfavourable factors. Consequence: The consequence of the threat is a viable option is not clear. | SC | CC / WCC | 10/08/2015 | Live - Treat | Indicative Business Case | MCA being developed which will allow the preferred option to be clearly defined. | Stakeholders | High | Low | 16 | Engagement with the WCC Working Group to resolve issues. Assess consultation received. | High | Very Low | 8 | |
| 35 | Rsk_35 | Changes to resourcing | Description: There is a threat that key project resources will be pulled off the cycleway project. Cause: The cause of the threat is other projects commence and the team members are made unavailable. Consequence: The consequence of the threat is delays due to project handover; loss of project knowledge | AA | CC | 10/08/2015 | Live - Treat | Project | Back-up staff are available for the main team roles. | Delivery | High | Low | 16 | Staff to outline other project commitments throughout the project, and nominate time available for this project. PM to follow up with Steering Group. | High | Very Low | 8 | |
| 35 | Rsk_53 | Estimates continually increasing the expected cost | Description: There is a threat that the estimates will increase substantially between project phases. Cause: The cause of the threat is errors during estimation; quantity errors; pricing increases not allowed for. Consequence: The consequence of the threat is lack of confidence in the estimates produced; substantial rework; | CM | CC / WCC | 11/08/2015 | Live - Treat | Project | SM014 Cost Estimation Manual | Cost | High | Low | 16 | Quantities checked and verified by design team. Detailed verification of the estimates Registered NZTA cost estimator engaged on project; | High | Very Low | 8 | |

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| 35 | Rsk_54 | Poor review of economic evaluation | Description: There is a threat that the economic evaluation will be poorly received. Cause: The cause of the threat is large assumptions made about the benefits provided by the project works. Consequence: The consequence of the threat is loss of confidence in the team; long approval process, rework to justify the assumptions made; public dissatisfaction. | SC | CC / WCC | 11/08/2015 | Live - Treat | Indicative Business Case | EEM | Delivery | High | Low | 16 | Checking and verification procedures for the economic evaluation. | High | Very Low | 8 | |
| 35 | Rsk_59 | Timing of consultation | Description: There is a threat that consultation will not be as timely as it needs to be. Cause: The cause of the threat is previous experience with consultation Consequence: The consequence of the threat is public disapproval/dismay at lack of detail; WCC force re-work to address concerns; loss of confidence in project team | AA | CC / WCC | 11/08/2015 | Live - Treat | Project | RMA process | Public / Media | High | Low | 16 | Consultation plan prepared. Will describe level of detail that consultation will aim for (i.e.. Routes will be discussed during IBC phase; consultation on detailed design issues will occur during DBC phase) | Medium | Low | 11 | |
| 35 | Rsk_62 | WCC construction approvals | Description: There is a threat that WCC construction approvals (CAR, building consent, TMP) will not be obtained in time. Cause: The cause of the threat is lack of detail on applications, oversight by team, unexpected requirements of WCC teams. | | | | | | Timeframes for activities are publically available. | Legal / Compliance | High | Low | 16 | Define all approvals required for works ASAP. Determine time required to gain approval. Liaise with WCC teams about requirements and date of lodgement so they are ready to process the application. | High | Very Low | 8 | |
| 43 | Rsk_63 | Public fatigue | Description: There is a threat that the public will become fatigued with all the cycleway construction. Cause: The cause of the threat is a very long implementation programme. Consequence: The consequence of the threat is public indifference, loss of enthusiasm, loss of political support. | PB | CC / WCC | 10/08/2015 | Live - Treat | Project | Comms and marketing plan | Stakeholders | Medium | Medium | 15 | Open days to pass on project info to the public. Maintain an up-to-date website Show project progress on public programme. Coordinate delivery programme and TMPs to | Medium | Low | 11 | |
| 43 | Rsk_29 | Under-reporting of cyclist crashes | Description: There is a threat that the number of non-injury crashes involving cyclists will be under-reported. Cause: The cause of the threat is there are currently many non-injury crashes that are not reported. Consequence: The consequence of the threat is inaccurate assumptions in the economic evaluation. | SC | CC / WCC | 10/08/2015 | Live - Treat | Indicative Business Case | CAS | Delivery | Medium | Medium | 15 | Include section of report detailing level of under-reporting of cyclist crashes, refer to research. | Medium | Low | 11 | |
| 43 | Rsk_38 | Impact on motorists | Description: There is a threat that the LoS for motorists declines significantly as a result of the cycleway network Cause: The cause of the threat is the greater focus on cycleways leading to less funding for road maintenance, and cycleways impacting the function of traffic in various locations, leading to congestion. Consequence: The consequence of the threat is negative comments from media, motoring bodies; poor public perception; pressure on elected representatives. | SC | CC / WCC | 11/08/2015 | Live - Treat | Indicative Business Case | Modelling and design standards | Stakeholders | Medium | Medium | 15 | Modelling will be carried out to determine the impacts on road function of the proposed cycleway works. | Medium | Low | 11 | |

| Risk Status | |
|---------------|-----------|
| Draft | 22 |
| Live - Treat | 38 |
| Live - Parked | 0 |
| Impacted | 0 |
| Closed | 1 |
| Rejected | 1 |
| Blank | 1 |
| TOTAL | 63 |

| Current Risk Score | |
|--------------------|-----------|
| Extreme | 16 |
| High | 43 |
| Moderate | 4 |
| Low | 0 |
| Zero | 0 |
| TOTAL | 63 |

| Residual Risk Score | |
|---------------------|-----------|
| Extreme | 10 |
| High | 32 |
| Moderate | 19 |
| Low | 2 |
| Zero | 0 |
| TOTAL | 63 |