



RISK REGISTER: Auckland Rail PBC

Last Review: 2023-09-11

Risk ID	Threat or Opportunity	Risk Title	Risk Description	Risk Cause(s)	Risk Consequence(s)	Risk Owning Organisation(s)	Current Risk Likelihood	Current Risk Consequence	Current Risk Score	Controls	Post-Control Risk Likelihood	Post Control Risk Consequence	Post-Control Risk Score	Risk Score (Pre-Control)	Risk Score (Post Control)
1	Threat	Significant landowner opposition to the project	There is a threat of significant landowner opposition to the project from highly engaged groups. Also, by other landowners who are concerned about the impact of the project on property values and the length of uncertainty	The cause of the threat is landowner objections to property impacts; objections to future amenity effects for future residents and surrounding community; impacts on current community facilities and social infrastructure.	The consequence of the threat is delay to the programme through the court process, reputational damage, and media coverage. Increased need to respond to concerns from landowners drains resources from other project areas.	KiwiRail / Auckland Transport	Highly Likely (>85%)	Major	Critical	1) Proactive communication (early warnings and meetings) with concerned landowners. 50+ meetings held including property specialists. 2) Design refinement and consideration of alternatives to address objections.	Likely (55%<85%)	Major	High	20	16
2	Threat	Scale of affordability gap.	Short term funding not available to get programme started at scale and timing recommended in the PBC, both funding to maintain the system at a level that meets current and future needs of users and investing in projects that create capacity and resilience	Overall demands on the NLTF and local funding greater than funding available. Continuing de-prioritisation and funding deficits for maintenance and renewals	Risk to network performance and levels of service. Larger future renewals programmes. Critical infrastructure elements being delivered further behind demand, or being delivered piecemeal, comprising overall programme benefits.	KiwiRail / Auckland Transport	Highly Likely (>85%)	Major	Critical	1) Undertake dependency analysis and quantitative staging assessment to further refine priorities. 2) Seek out synergies with compatible projects to generate cost efficiencies 3) Explore appropriate procurement strategies across different organisations to seek efficiencies in short term funding	Likely (55%<85%)	Major	High	20	16
20	Threat	Construction of ALR precludes Avondale - Southdown	There is a portion of the Avondale - Southdown corridor between Sandringham and Hillsborough that ALR seeks to share with HR. Risk that ALR does not adequately provision for future heavy rail which causes the Avondale-Southdown project to be either precluded or made significantly more costly and disruptive (i.e., requiring more land take) or practically precluded.	Dependency / interface with other projects (ALR)	Avondale - Southdown becomes significantly more costly and disruptive to build and/or is practically precluded	KiwiRail / Auckland Transport	Highly Likely (>85%)	Severe	Critical	1) ALR scope to include planning and early civils work to ensure that HR is not precluded or materially impacted from any shared sections of the Avondale - Southdown corridor 2) The PBC clearly articulates to decision makers that A-S is essential for the long-term resilience of the HR network 3) As a backup, the PBC also includes budget for early planning and civils	Possible (30%<55%)	Severe	High	25	15
25	Threat	Major service disruption during construction	Major service disruption during construction	Block of line required to support construction work	1) Compromises ability to perform required maintenance 2) Impact on services to customers, and consequently demand	KiwiRail / Auckland Transport	Highly Likely (>85%)	Major	Critical	1) Maximise use of offline construction methodology 2) Programme optimisation (making best use of BOLs without increasing delivery risk, and scheduling work at lower demand times, partial closures) 3) Alternative transport options (bus replacement) 4) High levels of communication with affected communities	Likely (55%<85%)	Moderate	High	20	12

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4	Threat	Redesign during subsequent development phases	Threat that redesign is required in subsequent development stages that leads to a substantial change in approach, including changed property requirements.	1/ Designation based on high level design which is less feasible as design detail progresses.	1/ Time/cost/reputation impacts associated with re-work (design, engagement etc).	KiwiRail / Auckland Transport	Highly Likely (>85%)	Minor	High	1) New aerial imagery to identify new construction close to designation. 2) Technical note detailing design approach (i.e., to driveways etc) more clearly. 3) Realistic design from design team to base designation 4) Property impact study / constraints mapping. Conservative approach to wetland space. 5) Targeted stakeholder/ landowners' engagement 6) Detailed ecological desktop assessment. 7) Early engagement with developers to understand their plans.	Possible (30%<55%)	Minor	Low	10	6
5	Threat	Design changes and site investigation feedback leads to additional unexpected engineering impacts.	There is a threat that site investigation (incl geo) feedback and design development lead to additional cost. Southern corridor is relatively well know, but Avondale - Southdown is less well known.	PBC level design and analysis	1) Unhappy landowners. 2) Increased costs	KiwiRail / Auckland Transport	Likely (55%<85%)	Moderate	High	1) Early identification of design changes and new impacts. 2) Allowed for constructability space requirements. 3) Desktop research from specialists regarding geotechnical 4) Seek access to inter-agency site information (e.g., ALR and Waterview tunnel work on the Avondale - Southdown corridor).	Possible (30%<55%)	Moderate	Medium	12	9
6	Threat	Land required for project is developed prior to route protection.	There is a threat that land needed for the project is developed/redeveloped prior to route protection, increasing the cost. Particularly W2P section.	1/The cause of the threat is landowners are unaware of project due to lack of consultation. 2/Timing between project and developers do not align.	The consequence of the threat is increased cost due to greater compensation for landowner. Potential greater opposition from landowner to project. Potentially makes it harder and more expensive to obtain NOR.	KiwiRail / Auckland Transport	Likely (55%<85%)	Moderate	High	1) Fast response team early identification of consent applications. 2) Planning team to liaise closely with Auckland Council about existing applications. 3) Comm/engagement have an active up-to-date list of developers with land holding in the study area.	Possible (30%<55%)	Moderate	Medium	12	9
7	Threat / Opportunity	Deliverability risks associated with baseline programme	Market-wide, concurrent projects risk being difficult to resource at key stages, business casing to construction	Sequential planning business casing, processes and standard lead times result in a peak level of business casing, consenting and construction for heavy rail, which will also compete for resource with other projects	Resource constraints and lack of bandwidth / capability affect ability to deliver on cost and to time	KiwiRail / Auckland Transport	Likely (55%<85%)	Moderate	High	1) Identify and recruit capability gaps. Educate market on 30-year pipeline. 2) Seek out opportunities to accelerate planning in some areas and create a forward work programme of delivery that would attract larger contractors to NZ. 3) Once planning/designations and property acquisitions are in place, opportunities can be pursued to smooth the delivery path. This should include accelerating of investigation and delivery in parallel 4) Procurement strategies including early contractor involvement	Possible (30%<55%)	Moderate	Medium	12	9

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8	Threat	Estimating uncertainties	Assumptions and scope of projects change based on more detailed analysis in subsequent phase, resulting in an increase in base estimate costs. As an example, analysis points to the need for additional capacity between Wiri and Westfield (beyond the capacity provided by a 4-track railway) but there has been insufficient time within the PBC to develop a preferred solution in detail. Risk that further detailed analysis reveals the adopted solution of an at-grade 6-track corridor, to be infeasible and / or significantly more costly than anticipated	1/ Insufficient level of detail developed in the PBC to confirm design concepts to a high degree of confidence resulting in scope and assumption changes during subsequent phases of development.	Increase in project costs.	KiwiRail / Auckland Transport	Likely (55%<85%)	Moderate	High	1) Estimate undertaken in accordance with SM14 Cost Estimation Manual. Appropriate contingencies have been incorporated for the different project phases. 2) Undertake sense check for the cost estimate against other programmes.	Possible (30%<55%)	Moderate	Medium	12	9
16	Threat	Removal of elements of the programme (infrastructure and operations) compromise its ability to deliver overall programme benefits	Risk of the programme being 'picked apart' in future phases of planning in favour of an incremental approach, losing sight of interdependencies, which compromises overall benefits and therefore the economic and strategic viability of the programme.	1) Constrained funding. 2) Future decision makers lack understanding of how certain parts of the programme work as together to deliver overall benefits.	Degraded programme benefits	KiwiRail / Auckland Transport	Highly Likely (>85%)	Moderate	High	1) PBC structured in order to show what the programme would need to look like in order to meet demands, demonstrating a lag in demand and therefore urgency for investment. 2) Careful scoping of subsequent phases to ensure the overall strategy is retained. 3) PBC taken as the baseline and variations and interdependencies monitored	Possible (30%<55%)	Moderate	Medium	15	9
17	Threat	Level crossing programme deprioritised	Risk that level crossing removals are deferred leading to unsafe conditions at crossings due to increased rail traffic, and potential intervention of safety regulator to cap rail volumes below levels planned in the PBC, compromising programme benefits	1) Constrained funding. 2) Resistance from landowners and other stakeholders	Safety risk Degraded programme benefits	Auckland Transport	Highly Likely (>85%)	Moderate	High	1) Procurement strategy to provide flexibility in which crossings to prioritise - such that highest risk areas and those with highest impacts on rail capacity, can be treated more urgently 2) Use of the alternative CRL day one timetable (Ai Reduced) which limits train volumes in most areas of the network to current levels. 3) Implementing short term safety measures 4) Updating routing for traffic and providing mitigations on alternative corridors (within existing land holdings) 5) Reducing levels of service for rail and road	Possible (30%<55%)	Moderate	Medium	15	9
24	Threat	Impact of blocks of line	Risk that we are trying to do a lot of tracks at the same time. All going to use blocks of line. Causes other projects to be delayed.		Phasing of projects will change and take longer to be built	KiwiRail / Auckland Transport	Likely (55%<85%)	Major	High	1) Planning BOL well in advance of construction 2) Programme optimisation (making best use of BOLs without increasing delivery risk)	Likely (55%<85%)	Moderate	High	16	12
26	Threat	Delays to maintenance enabling investments	Including for example bi-directional crossovers and sectioning, plant and equipment, improved track access, and depots	Funding shortfall	Delay to maintenance improvements and 30min single line running. Ability Limit number of services that can be run in short to medium term - due to insufficient track maintenance standard	KiwiRail	Likely (55%<85%)	Moderate	High	1) Ensure programme makes the case for maintenance improvements to be the highest priority for investment. 2) Seeking alignment between expressed GPS priorities and funding	Likely (55%<85%)	Moderate	High	12	12

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27	Threat	Compromise to maintenance window	Future service span expansion conflicts with maintenance window, resulting in reduced network reliability	Future access arrangements deprioritise maintenance access to the network.	Continued issues of unreliable services (due to temporary speed restrictions, unexcepted failures, etc.) Future large scale shutdowns	KiwiRail / Auckland Transport	Likely (55%<85%)	Major	High	1) Work is already underway in developing a proactive maintenance regime, and formalising track access arrangements and processes.	Possible (30%<55%)	Major	High	16	12
28	Threat	EMU depot and stabling feasibility and delay	Further investigation shows PBC depot and stabling locations to be infeasible, take longer, or be significantly more expensive	Unquantified (at PBC level) constraints on proposed solution	Delay in construction of Henderson depot (with potential impacts to fleet procurement and therefore passenger capacity improvements), or The need to look for an alternative site, compromising the original strategy and leading to operational inefficiencies.	Auckland Transport	Likely (55%<85%)	Moderate	High	1) Further development of options for EMU depot and stabling through future business cases including potential temporary locations	Likely (55%<85%)	Minor	Medium	12	8
3	Threat	Political perspective changes staging and or priorities.	Threat that political perspective changes staging and or priorities which may present new constraints (or opportunities) for rail. In the short term, a change of government in the 2023 election, is likely to result in new transport priorities.	1/ Specific localised drivers.	1/ Revised staging is required.	KiwiRail / Auckland Transport	Possible (30%<55%)	Moderate	Medium	1) Undertake qualitative staging assessment to better understand priorities. 2) Demonstrate role of rail in wider strategic goals to gain cross party support 3) Future funding will be confirmed by July 2024. This provides KR and AT an opportunity to advocate for the benefits of the rail PBC to seek funding within existing funding streams (e.g., RNIP, RLTP, NLTP)	Possible (30%<55%)	Minor	Low	9	6
13	Threat	Lack of Onehunga service improvements	Lack of improvement to Onehunga services over a long period of time. Risk that this will be perceived negatively by councillors and other stakeholders, causing difficulty achieving political acceptance of the plan, particularly if ALR is delayed		1) Reputational risk with residents in this area. 2) PBC does not provide sufficient services to OBL. Requires rework	KiwiRail / Auckland Transport	Likely (55%<85%)	Minor	Medium	1) PBC documentation and comms material to provide clear messaging on the reasoning behind this (including lack of demand for the service) and the PT improvements coming planned for this community through Avondale - Southdown and Light Rail 2) Study on Onehunga connectivity has been provisioned in the plan	Possible (30%<55%)	Minor	Low	8	6
18	Threat	Strong emissions reduction policy requires additional investment	Threat that strong policy interventions to force mode shift to PT results in more demand than planned for in the PBC	1) Policy intervention to force mode shift to PT	Demand exceeds capacity requiring additional investment	KiwiRail / Auckland Transport	Possible (30%<55%)	Moderate	Medium	1) Align funding for programme with policy interventions2) Explore temporary service level trade-offs	Unlikely (5%-30%)	Moderate	Low	9	6

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19	Threat	ALR delayed	A delay to ALR is expected to result in more demand being placed on the HR network (Western Line) which would pull forward and potentially change elements of the plan.	Dependency / interface with other projects (ALR)	More demand placed on the HR network resulting in the need to bring forward and/or modify aspects of the plan.	KiwiRail / Auckland Transport	Highly Likely (>85%)	Insignificant	Medium	1) Consider pulling forward investment on the Western Line (specifically earlier implementation of Mt Albert turnback)	Possible (30%<55%)	Insignificant	Low	5	3
21	Threat	Growth in passenger volumes precludes access to Southdown Lane	Risk that future growth in passenger services makes access between Southdown Lane and Westfield junction highly constrained. No infrastructure solution has been found in the PBC to this. However, note that this would not be a significant issue until 2051.	Insufficient level of detail developed in the PBC to develop an acceptable solution	Loss of freight demand due to lack of / unreliable access to siding in 2051	KiwiRail	Possible (30%<55%)	Moderate	Medium	1) The PBC recommends further study as part of Westfield junction grade separation project	Possible (30%<55%)	Moderate	Medium	9	9
22	Threat	Constrained capacity during early phases of the programme	Analysis undertaken in the PBC indicates that capacity improvements will lag demand significantly, due to long lead times of the required infrastructure interventions and history of under investment on the network. This will lead to a long period of constrained capacity in which trade-offs will be required between markets to accommodate growth. This is particularly true on the southern corridor prior to four tracking, but also occurs in other areas of the network (e.g., the NAL prior to Avondale - Southdown).	PBC infrastructure solution to resolving access conflicts (e.g. southern corridor four tracking, Avondale - Southdown) are too late to accommodate demands	Degraded service quality and potential loss of demand	KiwiRail / Auckland Transport	Likely (55%<85%)	Minor	Medium	1) PBC documentation provides clear caveats that service concepts developed as part of the optioneering process are indicative only, and further work in timetable committee and other forums, is required to optimise access arrangements, including economic considerations	Likely (55%<85%)	Minor	Medium	8	8
9a	Threat	Demand growth slower than assumed.	Threat that the growth pace is different to assumed.	1/ Market driven, and development happens slower than planned.	Infrastructure may be required earlier or later than originally planned for.	KiwiRail / Auckland Transport	Unlikely (5%-30%)	Minor	Low	1) Explore further opportunities for smoothing the programme	Unlikely (5%-30%)	Minor	Low	4	4
9b	Threat	Demand growth faster than assumed.	Threat that the growth pace is different to assumed.	1/ Market driven, and development happens faster than planned.	Infrastructure may be required earlier or later than originally planned for.	KiwiRail / Auckland Transport	Unlikely (5%-30%)	Moderate	Low	1) Look for opportunities to bring forward elements of the programme.	Unlikely (5%-30%)	Moderate	Low	6	6