



I hereby give notice that a Special Meeting of Council will be held on:

Date: Wednesday, 26 May 2021
Time: 5.30pm
Location: Council Chamber
Minlaton Town Hall
57 Main Street
Minlaton

AGENDA

Special Council Meeting

26 May 2021

Andrew Cameron
CHIEF EXECUTIVE OFFICER

CONFLICT OF INTEREST

Members are reminded of the requirements for disclosure by Members of direct or indirect pecuniary benefit or detriment and non-pecuniary benefit or detriment in relation to a material conflict of interest in accordance with Section 73, or an actual or perceived conflict of interest in accordance with Section 75 of the Local Government Act in items listed for consideration on the Agenda. Section 74 and 75A of the Local Government Act 1999 requires that Elected Members declare any interest and provide full and accurate details of the relevant interest to the Council. In relation to actual or perceived conflicts of interest a member has an obligation to outline how they propose to deal with the actual or perceived conflict of interest prior to consideration of that item on the Agenda.

This requirement does not apply to Ordinary Business Matters prescribed by regulation 8AAA Local Government Act (General) (Accountability and Governance) Variation Regulations 2016.

Each Member of a Council has a duty to vote at all meetings unless excepted by legislation.

The major exception being where a Member has a material conflict of interest.

Agenda

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1 WELCOME AND ACKNOWLEDGEMENT BY MAYOR

Meeting declared opened

2 OPENING PRAYER

3 PRESENT

4 LEAVE OF ABSENCE

Cr Kristin Murdock

5 APOLOGIES

Cr Naomi Bittner.

6 CONFLICT OF INTEREST

DEBATE AGENDA

DEBATE AGENDA

7 ASSETS AND INFRASTRUCTURE SERVICES

7.1 NORTH COAST ROAD FUTURE UPGRADE

Document #: 21/45775

Department: Assets and Infrastructure Services

PURPOSE

To seek Council endorsement to proceed with an application for funding through the Special Local Roads Program for the extension of the sealed section of the North Coast Road by 4km.

RECOMMENDATION

That Council endorse submitting an application for funding through the Special Local Roads Program for extending the sealed section of the North Coast Road by 4km to the end of the existing 50km/h zone.

LINK TO STRATEGIC PLAN

Goal: 1 Economically Prosperous Peninsula

2 Community Connected through Infrastructure

3 Valued and Restored Environment

Strategy: 1.6 Identify opportunities to advocate on behalf of key industries (e.g. agriculture, tourism etc.)

1.7 Explore opportunities for 'missing or sub-standard' infrastructure (e.g. freight movement, function centre, large accommodation etc.)

2.4 Explore provision of new infrastructure

3.5 Deliver projects and services that have direct environmental benefits

BACKGROUND

The North Coast Road is a road straddling the coast of Point Turton. Part of the road closest to town passing homes is sealed; however, there remains 11kms unsealed that connects to the unsealed Point Souttar Road. The remaining unsealed section of the North Coast Road leads to camping areas and is well used by tourists. Within the first 4kms past the end of the existing seal there are 41 residences, which is the majority of lived on landholdings along the remaining 11km unsealed section of North Coast Road. Not all of these are holiday homes.

North Coast Road is classified as a High Use Sheeted Unsealed Road in Council's Transport Asset Management Plan. Such classification suggests an indicative Level of Service/maintenance provision of 2 to 4 grades per year and the gravel pavement lasting 15 years before resheeting/renewal. Over the last 3 years Council has undertaken several gravel resheeting campaigns and is habitually going back to the road to deal with corrugations and dust complaints. Council has tried different road sheeting gravels akin to highway roadbase, neither of which have delivered longevity of surface wear before onset of corrugations. At present Council is grading the North Coast Road up to 8 times per year in view of the wear and tear. A more cost effective maintenance regime is required.

Council has undertaken traffic counts on the North Coast Road and the most recent data indicates usage exceeding 900 vehicles per day and an Annual Average Daily Traffic (AADT) of greater than 400 vehicles per day. Research from overseas shows European road authorities sealing roads with AADT greater than 250. In Victoria one council sought to seal roads whose AADT was greater than 400 in view of maintenance cost considerations. There is negligible truck use of the route.

In the past, Council engaged Tonkin to prepare a design for upgrade of the remaining 11km unsealed section of the North Coast Road. Such involved acquisition of land, public utility adjustments, and a 100km/h design speed. The design speed at the time was set by Council, and Tonkin designed a road upgrade to fit with Council's requirements at that time.

Council has previously twice sought funding through the Special Local Roads Program (SLRP) to seal the remaining 11km unsealed section of the North Coast Road, and on both occasions were unsuccessful. The complete project at the time was estimated by Council at approximately \$9,000,000 and the reality is \$9,000,000 is multiples of the SLRP. If there is to be grant contribution, any North Coast Road upgrade needs to be staged over time in line with relative need, funds availability and should be 'fit for purpose'.

The project status and possibilities have been reassessed by Council's Director Assets and Infrastructure Services. This report provides a way forward for Council and the community.

DISCUSSION

When one prepares a road design, you normally design to the current day Austroads/Australian design standards, unless the client calls for a higher standard. Upon review of the previous Tonkin design report it was apparent that the horizontal and vertical road alignments over the first 4kms from the end of the existing seal satisfied design requirements for a 50km/hr zone, and there is sufficient sight distance along the route for oncoming traffic awareness. Thus a significant amount of the 'green fields' land acquisition, shifting of public utilities, and building sections of the road away from the existing road alignment as seen in the old design is not needed if a lower design speed is adopted.

In short, a more considered fit for purpose design brief to consultants could deliver a more cost effective achievable road design.

Additionally, to date, road base materials seem to have been a problem, generating substantial dust and much complaint along the North Coast Road.

Council appears to use 3 sources of material across the Council area. Locally sourced natural limestone/crushed paddock rock/calcrete, and quarry product from Hanson's Curramulka quarry and Kulpara Quarry.

Local sourced calcrete/limestone/paddock rock have been used on much of the road network for many decades. Local knowledge suggests the calcrete in the south of the Council area is harder and longer lasting on the road than softer calcretes to the north.

Council, in conjunction with Tonkin, undertook road materials testing and road serviceability monitoring of 3 roads in the last 2 years. That is Nalyappa Road to the north of the Council area using Kulpara Quarry PM 2/20 QG road base, and Brutus Road and Corny Point Road to the south of the Council area using Hanson's PM 2/20 QG. An April 2021 report from Tonkin indicated that Kulpara material on Nalyappa Road at the sample location was a softer rock than Hanson's. However, both quarry materials generated considerable wear and tear with traffic use. Even though the Kulpara Quarry material was within ideal materials grading ranges for the proportion of fines relative to larger sized sand and aggregate components, and was well compacted, such was not enough to avoid the material being whipped apart with road use, fines being lost with excess dust generation, corrugation and breakdown of the soft aggregates. Even the Hanson's material generates excessive dust and similarly does not last anywhere near what is expected of materials in Council's Transport Asset Management Plan. Gravel resheet renewals are meant to last 15-25 years. Some of Council's quarry products will be lucky to last 3 years before the need for serious road maintenance.

An example of the performance of the current quarry product on the North Coast Road can be seen below. In short, there is insufficient plasticity and cohesive clay fines in the quarry product to hold it together with the consequence of corrugation development and dust generation. This lack of plasticity is demonstrated in the picture showing the material not holding together in a ball, and rather falling apart when a handful of material is clenched and then released.



What the above tells Council is that there is an issue with the specification and strength of the quarry products being put on our unsealed roads. If what is available is the best that is available, then Council has to look for ways of improving the strength and durability of these materials in the field at the time of road construction/resheet road renewal. The problem with the imported materials is that they are short of cohesiveness/plasticity to hold the material constituents together, and the material's natural strength/hardness/ability to withstand load is not as strong as what is desired. These issues can be overcome by an infield material modification process called stabilisation. A stronger, higher performing, longer lasting material can be created onsite via the use of the right percentage of quick lime or General Purpose Blended (GB) cement addition mixed with the quarry product by Council's in field rotary moisture and stabilant pavement materials mixing equipment. Stabilising the imported materials will also deliver a marked reduction of dust generation.

Council has used multiple material types on the North Coast Road, and has diverted considerable resources in trying to maintain the North Coast Road to date.

The way forward is a 3 step process:

1. For chainage 4-11km, outside of the existing 50km/h built-up area, consider the following trial treatment as opposed to cutting and grading 8 times a year, use a dust suppressant like 'Dustex' mixed into the top 50mm of gravel unsealed pavement (calcium lignosulphonate). Such treatments on high trafficked areas may be needed 2-3 times per year.
2. For the first 4km past the existing bitumen undertake Dynamic Cone Penetrometer (DCP) testing of the existing subgrade under the existing gravel pavement to gauge the subgrade's California Bearing Ratio (CBR)/strength/ability to resist deformation from tyre loading, and check the depth of existing gravels. Then undertake a new pavement design. The new design would stabilise and bind the existing gravels to a depth of 250mm using either 4% quicklime or similar percentage of GB cement. At this point the road surface would resist dust generation for quite some time.
3. Provide a new imported 200mm layer of PM 2/20 QG quarry gravel, to be placed over the scarified surface of the 250mm stabilised layer. This PM 2/20 QG material would be modified with a lesser percentage of cement or fly ash/lime to provide a base course layer that is both strong and flexible. This layer would be provided with a two-coat bitumen seal.

Council is at the stage of being ready to commission a redesign of the first unsealed 4kms of the North Coast Road.

Council has done an estimate of the above concept at \$3,460,000.

If Council applies to the 2021/2022 SLRP (potential 66% grant availability), which closes on 28 May 2021, it will apply for a 4km project that is staged over two financial years as follows:

1. 2021/2022 Financial Year (starting January 2022) – Stage A (design, drainage, accesses, road reshape and 250mm stabilisation) – \$1,309,000 (SLRP fund = \$873,000 / Council contribution = \$436,000).

2. 2022/2023 Financial Year (starting October 2022) – Stage B (250mm pavement installation, two-coat seal, line marking and signage) – \$2,114,000 (SLRP fund = \$1,409,000 / Council contribution = \$705,000).

At this point in time there is no provision in the Long Term Financial Plan (LTFP) nor in the current 2021/2022 draft capital works budget for a Council contribution of \$436,000 in 2021/2022 and \$705,000 in 2022/2023.

However, some federal supplementary grants are on the horizon that would cover the best part of Council's SLRP project contribution and the balance could be absorbed into subsequent year budgets without materially affecting annual performance report predictions in Council's LTFP.

At this point in time there is no point changing the draft budget to incorporate a contingent provision of \$436,000 for matching grant funding; however, it is recommended that Council staff be endorsed to follow through on a more cost effective scope of work for the first 4kms of the North Coast Road and submit a funding application to the SLRP by 28 May 2021. If Council ultimately votes to accept a SLRP grant and undertake the 4km project, the resultant change to budget can be factored into a quarterly budget review.

COMMUNITY ENGAGEMENT PLAN

Level 1 - Inform

There already has been much correspondence with the North Coast Road community on the state of the North Coast Road and some of the potential way forward.

CONSULTATION PROCESS

In preparing this report, the following Yorke Peninsula Council officers were consulted:

- Corporate Management Team

In preparing this report, the following external parties were consulted:

- Legatus Group
- Tonkin
- Community members who have engaged with Council

POLICY IMPLICATIONS

As one of Council's highest trafficked roads servicing through traffic/tourists, the North Coast Road, needs to be one of those priorities where Council specifically looks at its current costs of maintenance versus the benefits of undertaking a different approach. Attached are two cost benefit analysis of the project. Such shows that \$1.50 of benefit is derived from each \$1 of sealing works project expenditure. Additionally, a sensitivity analysis was undertaken looking at only Council's grant contribution versus its future cost saving benefits with such delivering \$1.70 of future gravel road maintenance savings for each \$1 of Council contribution to this project.

BUDGET AND RESOURCE IMPLICATIONS



Currently there is no inclusion of this project in Council's LTFP or future budgets. Budget adjustments will need to be made if this project is funded.

RISKS/LEGAL/LEGISLATIVE/ IMPLICATIONS

Dust is a contentious environmental issue, as is the effectiveness of road maintenance outcomes at present. Whilst some people may argue do not live at a location serviced by an unsealed road if you do not want to live with road dust issues, one needs to look at other considerations in the case of the North Coast Road. Circumstances change over time, and traffic can significantly increase over time with tourism. Council can mitigate the risk with dust suppressants; however, they are not the long term answer of sealing the North Coast Road. People can talk of suing Council; however, as long as Council does its best with what it has, it is morally and legally on firm ground.

At the end of the day, ratepayers fund what Council does and if higher rates are needed to deliver what ratepayers want, then due process will play out. Right now in a deficient budget situation, with many unfunded projects, the only way this project can happen is if a grant is obtained.

ATTACHMENTS

1. **Cost Benefit Ratio** [↓](#) 
2. **Cost Benefit Ratio - Sensitivity Check** [↓](#) 

CBA results

YORKE PENINSULA COUNCIL- May 2021 Special Local Roads Program- CBR (Cost Benefit Ratio) North Coast Road

[Go to Table](#)



Year	Project Costs			Project benefits							Net Benefits
	Capex	Opex & Maint	Total costs	Avoided Routine Maintenance	Avoided Resheet and replacement of accelerated wear and tear	Value of increased tourism overnight stays	Avoided health costs	Property Appreciation on existing lots	Avoided adverse publicity and reputational damage	Total Benefits	
1 2022	\$1,309,436	-	\$1,309,436	-	-	-	-	-	-	-	(\$1,309,436)
2 2023	\$2,114,705	-	\$2,114,705	44,800	-	-	-	-	-	44,800	(\$2,069,905)
3 2024	-	-	-	45,696	250,600	109,500	28,600	-	-	434,396	\$434,396
4 2025	-	-	-	46,610	-	111,690	\$29,172	\$200,000	\$50,000	\$437,472	\$437,472
5 2026	-	-	-	47,542	-	113,924	\$29,755	\$204,000	\$51,000	\$395,221	\$395,221
6 2027	-	-	-	48,493	265,939	116,202	\$30,351	\$208,080	\$52,020	\$669,065	\$669,065
7 2028	-	-	-	49,463	-	118,526	\$30,958	\$212,242	\$53,060	\$411,188	\$411,188
8 2029	-	-	-	50,452	-	120,897	\$31,577	\$216,486	\$54,122	\$419,412	\$419,412
9 2030	-	-	-	51,461	282,216	123,315	\$32,208	-	\$55,204	\$489,200	\$489,200
10 2031	-	-	-	52,490	-	125,781	\$32,852	-	\$56,308	\$211,124	\$211,124
11 2032	-	-	-	53,540	-	128,297	\$33,509	-	\$57,434	\$215,346	\$215,346
12 2033	-	-	-	54,611	299,490	130,863	\$34,180	-	\$58,583	\$519,143	\$519,143
13 2034	-	-	-	55,703	-	133,480	\$34,863	-	\$59,755	\$224,046	\$224,046
14 2035	-	-	-	56,817	-	136,149	\$35,561	-	\$60,950	\$228,527	\$228,527
15 2036	-	-	-	57,954	317,821	138,872	\$36,272	-	\$62,169	\$550,919	\$550,919
16 2037	-	\$344,542	\$344,542	59,113	-	141,650	\$36,997	-	\$63,412	\$237,760	(\$106,782)
17 2038	-	-	-	60,295	-	144,483	\$37,737	-	\$64,680	\$242,515	\$242,515
18 2039	-	-	-	61,501	337,275	147,373	\$38,492	-	\$65,974	\$584,640	\$584,640
19 2040	-	-	-	62,731	-	150,320	\$39,262	-	\$67,293	\$252,313	\$252,313
20 2041	-	-	-	63,985	-	153,326	\$40,047	-	\$68,639	\$257,359	\$257,359
21 2042	-	-	-	65,265	357,919	156,393	\$40,848	-	\$70,012	\$620,425	\$620,425
22 2043	-	-	-	66,570	-	159,521	\$41,665	-	\$71,412	\$267,756	\$267,756
23 2044	-	-	-	67,902	-	162,711	\$42,498	-	\$72,841	\$273,111	\$273,111
24 2045	-	-	-	69,260	379,826	165,965	\$43,348	-	\$74,297	\$658,399	\$658,399
25 2046	-	-	-	70,645	-	169,285	\$44,215	-	\$75,783	\$284,145	\$284,145
26 2047	-	-	-	72,058	-	172,670	\$45,099	-	\$77,299	\$289,828	\$289,828
27 2048	-	-	-	73,499	404,074	176,124	\$46,001	-	\$78,845	\$699,698	\$699,698
28 2049	-	-	-	74,969	-	179,646	\$46,921	-	\$80,422	\$301,537	\$301,537
29 2050	-	-	-	76,469	-	183,239	\$47,860	-	\$82,030	\$307,568	\$307,568
30 2051	-	-	-	77,998	427,746	186,904	\$48,817	-	\$83,671	\$741,465	\$741,465
31 2052	-	\$463,708	\$463,708	79,558	-	190,642	\$49,793	-	\$85,344	\$319,993	(\$143,715)
32 2053	-	-	-	81,149	-	194,455	\$50,789	-	\$87,051	\$326,393	\$326,393
33 2054	-	-	-	82,772	453,927	198,344	\$51,805	-	\$88,792	\$786,848	\$786,848
34 2055	-	-	-	84,427	-	202,311	\$52,841	-	\$90,568	\$339,579	\$339,579
35 2056	-	-	-	86,116	-	206,357	\$53,898	-	\$92,379	\$346,371	\$346,371
36 2057	-	-	-	87,838	481,711	210,484	\$54,976	-	\$94,227	\$835,009	\$835,009
37 2058	-	-	-	89,595	-	214,694	\$56,075	-	\$96,112	\$360,364	\$360,364
38 2059	-	-	-	91,387	-	218,988	\$57,197	-	\$98,034	\$367,572	\$367,572
39 2060	-	-	-	93,215	511,196	223,368	\$58,341	-	\$99,994	\$886,119	\$886,119
40 2061	-	-	-	95,079	-	227,835	\$59,508	-	\$101,994	\$382,422	\$382,422
TOTAL (real)	\$3,424,141	\$808,250	\$4,232,391	\$2,609,028	\$4,769,740	\$6,144,586	\$1,604,887	\$1,040,808	\$2,701,713	\$16,219,049	\$11,986,658
Total (discounte	\$3,342,806	\$334,282	\$3,677,088	\$1,189,601	\$2,174,704	\$2,747,381	\$717,581	\$855,455	\$1,281,255	\$7,729,172	\$4,052,084
Total (discounte	\$3,285,796	\$185,794	\$3,471,590	\$757,405	\$1,383,670	\$1,714,618	\$447,836	\$743,491	\$829,782	\$5,087,835	\$1,616,245
Total (discounte	\$3,231,895	\$109,055	\$3,340,950	\$530,537	\$968,077	\$1,173,716	\$306,560	\$649,696	\$586,757	\$3,666,151	\$325,200.86

Discount Rate	0%
	4%
	7%
	10%

Summary of Economic Appraisal	
NPV 4%	\$4,052,084
NPV 7%	\$1,616,245
NPV 10%	\$325,201
BCR (at 4%)	2.10
BCR (at 7%)	1.5
BCR (at 10%)	1.10

ASSUMPTIONS

The Project is staged over 2 financial years.

Currently the road is graded and reshaped 6 to 8 times per year. (\$44,800)

The rapid loss of pavement gravel through dust and accelerated wear and tear means the road warrants resheeting every 3 years. (ie \$250,600/occasion)

Note yearly indexation of 2% is assumed.

Seal Maintenance needed (ie 10mm reseal every 20 years). Cost \$8/m2 *8m*4000m- \$256,000/ocassion. Ie allowing for indexation, Year 16 after construction reseal cost is \$344,542 & year 31 is \$463,708
A present assume a 80 year pavement life. At year 40 & year 80, a decision would need to be made on the extent of any deformation as to whether YPC needs to strengthen the existing base material via addition of a stabilant as part of a rip/ pulverise/ reshape/ reseal rehabilitation.

Articulated trucks will be barred from this tourist route.

Property appreciation over 40 lots @ \$5000/ year for 5 years

Avoided Health costs best case scenario assumes no death, no legal action, no damages claims, however the need for monitoring, GP visits and medication (Approx \$28600)

Tourism stays through an enhancement of the Point Turton locality appeal, increased number of stays, increased spend (\$300/day or 109500/annum)

CBA SENSITIVITY CHECK results

YORKE PENINSULA COUNCIL- May 2021 Special Local Roads Program- CBR (Cost Benefit Ratio) North Coast Road

Go to Table
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Year	Project Costs			Project benefits							Net Benefits
	Capex	Opex & Maint	Total costs	Avoided Routine Maintenance	Avoided Resheet and replacement of accelerated wear and tear	Value of increase of tourism overnight stays	Avoided health costs	Property Appreciation existing lots	Avoided adverse publicity and reputational damage	Total Benefits	
1 2022	\$436,000	-	\$436,000	-	-	-	-	-	-	-	(\$436,000)
2 2023	\$705,000	-	\$705,000	44,800	-	-	-	-	-	44,800	(\$660,200)
3 2024	-	-	-	45,696	250,600	-	-	-	-	296,296	\$296,296
4 2025	-	-	-	46,610	-	-	-	-	-	\$46,610	\$46,610
5 2026	-	-	-	47,542	-	-	-	-	-	\$47,542	\$47,542
6 2027	-	-	-	48,493	265,939	-	-	-	-	\$314,432	\$314,432
7 2028	-	-	-	49,463	-	-	-	-	-	\$49,463	\$49,463
8 2029	-	-	-	50,452	-	-	-	-	-	\$50,452	\$50,452
9 2030	-	-	-	51,461	282,216	-	-	-	-	\$333,677	\$333,677
10 2031	-	-	-	52,490	-	-	-	-	-	\$52,490	\$52,490
11 2032	-	-	-	53,540	-	-	-	-	-	\$53,540	\$53,540
12 2033	-	-	-	54,611	299,490	-	-	-	-	\$354,101	\$354,101
13 2034	-	-	-	55,703	-	-	-	-	-	\$55,703	\$55,703
14 2035	-	-	-	56,817	-	-	-	-	-	\$56,817	\$56,817
15 2036	-	-	-	57,954	317,821	-	-	-	-	\$375,775	\$375,775
16 2037	-	\$344,542	\$344,542	59,113	-	-	-	-	-	\$59,113	(\$285,429)
17 2038	-	-	-	60,295	-	-	-	-	-	\$60,295	\$60,295
18 2039	-	-	-	61,501	337,275	-	-	-	-	\$398,776	\$398,776
19 2040	-	-	-	62,731	-	-	-	-	-	\$62,731	\$62,731
20 2041	-	-	-	63,985	-	-	-	-	-	\$63,985	\$63,985
21 2042	-	-	-	65,265	357,919	-	-	-	-	\$423,184	\$423,184
22 2043	-	-	-	66,570	-	-	-	-	-	\$66,570	\$66,570
23 2044	-	-	-	67,902	-	-	-	-	-	\$67,902	\$67,902
24 2045	-	-	-	69,260	379,826	-	-	-	-	\$449,086	\$449,086
25 2046	-	-	-	70,645	-	-	-	-	-	\$70,645	\$70,645
26 2047	-	-	-	72,058	-	-	-	-	-	\$72,058	\$72,058
27 2048	-	-	-	73,499	404,074	-	-	-	-	\$477,573	\$477,573
28 2049	-	-	-	74,969	-	-	-	-	-	\$74,969	\$74,969
29 2050	-	-	-	76,469	-	-	-	-	-	\$76,469	\$76,469
30 2051	-	-	-	77,998	427,746	-	-	-	-	\$505,744	\$505,744
31 2052	-	\$463,708	\$463,708	79,558	-	-	-	-	-	\$79,558	(\$384,150)
32 2053	-	-	-	81,149	-	-	-	-	-	\$81,149	\$81,149
33 2054	-	-	-	82,772	453,927	-	-	-	-	\$536,699	\$536,699
34 2055	-	-	-	84,427	-	-	-	-	-	\$84,427	\$84,427
35 2056	-	-	-	86,116	-	-	-	-	-	\$86,116	\$86,116
36 2057	-	-	-	87,838	481,711	-	-	-	-	\$569,549	\$569,549
37 2058	-	-	-	89,595	-	-	-	-	-	\$89,595	\$89,595
38 2059	-	-	-	91,387	-	-	-	-	-	\$91,387	\$91,387
39 2060	-	-	-	93,215	511,196	-	-	-	-	\$604,411	\$604,411
40 2061	-	-	-	95,079	-	-	-	-	-	\$95,079	\$95,079
TOTAL (real)	\$1,141,000	\$808,250	\$1,949,250	\$2,609,028	\$4,769,740	-	-	-	-	\$7,378,768	\$5,429,518
Total (discount)	\$1,113,885	\$334,282	\$1,448,166	\$1,189,601	\$2,174,704	-	-	-	-	\$3,364,305	\$1,916,139
Total (discount)	\$1,094,879	\$185,794	\$1,280,672	\$757,405	\$1,383,670	-	-	-	-	\$2,141,075	\$860,402
Total (discount)	\$1,076,909	\$109,055	\$1,185,964	\$530,537	\$968,077	-	-	-	-	\$1,498,614	\$312,649.43

Discount Rate	0%
	4%
	7%
	10%

Summary of Economic Appraisal	
NPV 4%	\$1,916,139
NPV 7%	\$860,402
NPV 10%	\$312,649
BCR (at 4%)	2.32
BCR (at 7%)	1.7
BCR (at 10%)	1.26

ASSUMPTIONS

The Project is staged over 2 financial years, **but we consider only Council's contribution to the Special Local Roads process** (ie \$436,000 in 2021/2022 & \$705,000 in 2022/2023)

Currently the road is graded and reshaped to 8 times per year. (\$44,800)

The rapid loss of pavement gravel through dust and accelerated wear and tear means the road warrants resheeting every 3 years. (ie \$250,600/occasion)

Note yearly indexation of 2% is assumed.

Seal Maintenance needed (ie 10mm reseal every 20 years). Cost \$8/m2 *8m*4000m- \$256,000/occasion. Ie allowing for indexation, Year 16 after construction reseal cost is \$344,542 & year 31 is \$463,708

A present assume a 80 year pavement life. At year 40 & year 80, a decision would need to be made on the extent of any deformation as to whether YPC needs to strengthen the existing base material via addition of a stabilant as part of a rip/ pulverise/ reshape/ reseal rehabilitation.

Articulated trucks will be barred from this tourist route.

DISREGARD- Property appreciation over 40 lots @ \$5000/ year for 5 years

DISREGARD- Avoided Health costs best case scenario assumes no death, no legal action, no damages claims, however the need for monitoring, GP visits and medication (Approx \$28600)

DISREGARD- Tourism stays through an enhancement of the Point Turton locality appeal, increased number of stays, increased spend (\$300/day or 109500/annum)

DISREGARD- Benefit associated with avoided reputational damage.

8 NEXT MEETING

Wednesday 9 June 2021

9 CLOSURE