INTERIM UPDATE – SMO18 KEY PRINCIPLES

These notes have been compiled to assist with programme development while we await confirmation of the approved budget resulting from the NLTP bid for 21/24. The following outlines key principles to consider when developing your prioritised program.

ANNUAL PLAN IMPROVEMENT PROJECT

The focus of the Annual Plan Improvement Project was to improve the process around developing the maintenance and operations Annual Plans, ensuring greater use of the MMP, greater efforts by the Agency and its Suppliers to work together and the approval by Asset Integrators (at the beginning of the AP process and throughout its development) of the approach taken to address the network needs.

As per the project objective of moving toward a 3-year programme, the instructions (SMO18) will clarify and set requirements for at least a 3-year period so that all parties are clear on what to expect year on year and can plan accordingly.

NLTP 21-24 BID

Network Teams will need to critically review & update proposals for the 21-24 NLTP bid as submitted on the 1st of March 2020. At this stage the NLTP budget has not been confirmed & Network Teams need to be aware that the maximum budget will not exceed the bid as proposed & is highly likely to be less than that requested.

There will be a strong emphasis on making the best of what we have got, once this has been confirmed, & to that end regions are encouraged to think about:

- Exploring alternative risk profiles – for example, solutions that provide reasonable value for money but may have a shorter life expectancy.
- Utilising alternative treatments to achieve objectives & maximise coverage – for example, optimising treatments & targeting a sensible balance right across the Network rather than concentrating in one area only.
- Consider different delivery mechanisms – for example, working with adjacent networks to minimise set up costs etc.

It is expected that the Forward Works Programmes for all assets covered under the NOC will be an output of the implementation of the Maintenance Management Plans (MMP). See **Error! Reference source not found.** below for an indication of the expected programmes as a minimum:

Table 1- Expected minimum works programmes required

Work Category	Detail	21/22	22/23	23/24
		Y1 Programme	Y2 Programme	Y3 Programme
WC 111	Heavy Maintenance	✓	✓	✓
WC113	High Lip Removal	✓	✓	✓
	Reform Side drains	✓	✓	✓
	Reform Unlined Surface Water Channels	✓	✓	✓
WC114	114A: Routine Bridge Maintenance	**Not required.**	**Not required.**	**Not required.**

	114B: Structural Bridge Maintenance	✓	✓	✓
	114C: Other Significant Highway Structures (exc. Tunnels)	✓	✓	✓
	114D: Guardrail Maintenance – on bridges	**Not required.**	**Not required.**	**Not required.**
	114E: Tunnel Maintenance	**Not required.**	**Not required.**	**Not required.**
WC212	Sealed Road resurfacing – Chip Seal	✓	✓	✓
	Sealed Road resurfacing – Asphaltic Concrete	✓	✓	✓
WC213	Subsoil Drains (not associated with rehabs).	✓	✓	✓
	Lined Water Channels	✓	✓	✓
	Culvert renewals	✓	✓	✓
WC214	Sealed Pavement Rehab	✓	✓	✓
	Structural Asphaltic Pavement Rehab	✓	✓	✓
WC215	215A: Routine Bridge Component Replacement	✓	✓	✓
	215B: Structural Bridge Component Replacement	✓	✓	✓
	215C: Other Significant Highway Structures Component Replacements (exc. Tunnels)	✓	✓	✓
	215D: Guardrail Component Replacements – on bridges	✓	✓	✓
	215E: Professional Services for Component Replacements	✓	✓	✓
	215F: Highway Guardrail Renewals – not on bridges	✓	✓	✓
WC221	Environmental Renewals	✓	✓	✓
WC222	Traffic Services Renewals	✓	✓	✓

PROGRAMME PRIORITISATION

It will be useful to adopt a view whereby we are building up a pipeline of work that can be assessed & implemented as funding becomes available rather than limiting planning to fit within a fixed budget over a fixed period of time. Ideally there will always be a continuum of work under review ready be implemented in accordance with its priority.

Programme prioritisation will require careful consideration to ensure we are maximising network coverage with the tensioned budget available.

NATIONAL MODELLING PAVEMENTS AND SURFACING RENEWALS

Extensive modelling work has been carried out to support the 2021-2024 NLTP bid. This signalled a need to increase renewal quantities across the network and, importantly, change the way we distribute the available quantities across the ONRC classifications.

It is essential that we improve the way we give effect to the outcomes of the modelling work to ensure that the NOC contracts are targeting the optimal levels of renewal within the budgets available. This will mean a greater focus on the distribution of work across the appropriate functional classifications.

Specifically, we need to ensure that renewals target the right sites and ONRC classifications and that the treatment types (and costs) are robustly assessed to ensure that the target lengths can be delivered within the budget available.

To assist with implementing this approach, we will be rolling out some “Teams” presentations. Initially these will provide some background and key messages regarding the National Modelling work outcomes. These will commence before 28 September and will be recorded for anyone unable to dial in on the day. Presentations will be followed up with local “Teams” workshops to focus more closely on the issues specific to your individual networks.

An initial DRAFT of the National/Network quantities is provided in **Error! Reference source not found.**. **Please read the notes very carefully. This table will change once final decisions are made with regards to national budget levels.**

Table 2 - Three-year (3) DRAFT pavement and surfacing renewal quantities (lane.km)

	3-Year Total (2021/22 to 2023/24) Quantities (lane.km)			
	Surfacing		Pavement	
Network	Asphalt	Chipseal	Rehabilitation	Treatment Total
(NOC) NORTHLAND	56.8	348.5	66.1	471.4
AUCK ALLIANCE	360.2	30.1	26.7	417.1
(NOC) WEST WAIKATO	57.9	198.6	24.7	281.1
(NOC) CENTRAL WAIKATO	8.4	509.2	83.1	600.7
(NOC) EAST WAIKATO	45.6	235.5	29.7	310.9
(NOC) BOP EAST	12.4	444.1	59.3	515.8
(NOC) BOP WEST	54.5	96.5	39.3	190.3

(NOC) TAIRAWHITI ROADS NORTHERN	0.0	66.8	12.9	79.7
(NOC) TAIRAWHITI ROADS WESTERN	2.1	114.4	39.1	155.7
(NOC) HAWKES BAY	11.1	375.7	30.2	417.0
(NOC) TARANAKI	9.1	506.6	46.5	562.2
(NOC) MANAWATU-WHANGANUI	11.9	350.5	19.4	381.8
(NOC) WELLINGTON	91.0	58.1	8.5	157.6
(EC) MARLBOROUGH	7.7	127.1	5.2	140.0
(NOC) NELSON-TASMAN	20.1	152.3	17.4	189.8
(NOC) NORTH CANTERBURY	73.7	421.1	27.3	522.1
(NOC) SOUTH CANTERBURY	12.6	192.8	7.0	212.4
(NOC) WEST COAST	12.2	412.9	20.3	445.4
(NOC) OTAGO CENTRAL	3.3	226.2	18.7	248.1
(NOC) COASTAL OTAGO	32.0	458.9	42.9	533.8
(NOC) SOUTHLAND	41.5	310.6	53.4	405.5
MILFORD	0.0	55.5	0.0	55.5
Grand Total	**924**	**5,692**	**678**	**7,294**

Notes: A number of considerations should be kept in mind when reviewing these quantities.

- *Quantities are based on the submitted 21/24 NLTP Investment Recommendation option. This investment exceeds the current GPS for maintenance and renewals and has not yet been approved. These quantities should therefore be treated as the upper threshold.*
- *The objective of the model was to maintain condition on the High-Class network (High Volume and National) and marginally improve Medium Class network (Regional and Arterial) at the expense of the Low-Class network. Quantities will reflect this objective, with predominately the Lower-class networks receiving less Pavement Renewal quantity compared to High class networks.*
- *Input data for the model was extracted from RAMM in May 2019 (2018/19 High Speed Data survey).*
- *Changes in the years leading up to 21/24 NLTP (2019/20 and 2020/21)*
    - *The 2019/20 Forward Works Program (FWP) was fixed in the model based on 2019 Annual Plan submission. This full FWP was not fully delivered.*
    - *2020/21 program was not constrained in the model. We now know the 2020/21 funding allocation is around 25% or more lower than modelled.*
    - *Actual achieved 2019/20 data and the constrained 2020/21 FWP will be fixed in the model and re-run prior to issuing final quantities.*
- *Model is based on 'like for like' treatment renewal logic. For example, a chip seal surface will only ever be replaced by a chip seal in the model. (ie not always appropriate)*
- *Quantities are preservation only and do not include SCRIM treatments*

- *Quantities include the full NZSH network as at May 2019, thus including all Principal Risk and/or Improvement/Capital sites. This means they may over-represent the quantity available to the NOCs on some networks.*
- *Quantities have been compared to Mar 2020 Annual Plan submissions, with good overall alignment:*
    - *Surfacing: 2020 Annual Plans are just over 10% higher total quantity*
    - *Pavement: 2020 Annual Plans are just over 5% lower total quantity*
    - *BUT; Network level alignment varies, with some significant outliers. These will be addressed during network specific workshops.*
- *Model has been validated on two networks: West Waikato and Central Waikato. Two initial findings identified by the reviewers:*
    - *Model may be over-estimating the life of surfaces. The surface model (cracking) has been calibrated using Waka Kotahi's 2019 Looking Back Review. This review suggests the average surface in the past has survived between 10 to 12 year in upper north island, 14 to 15 years in the lower north island and 16 to 20 years in the South Island. Based on the 21/24NLTP model quantities, the average modelled surface will be expected to last 11 years.*
    - *Model may be over-estimating the life of holding seals, particularly in an unstable surface environment and subsequent pavement renewal need. This starts as a data limitation in identifying holding surfaces.*