

**Report to the Minister of Statistics:
Additional census business case options**

Date	7 February 2020	Priority	High	Ref number	MM1927
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Timeline and next steps

Decision or action required by:	Note by 10 February 2020
Will be discussed at:	Meeting with officials on 10 February 2020
Purpose	<ul style="list-style-type: none">Brief you on additional options provided to The Treasury for the next census, and their proposal to reintroduce census baseline funding
Linkages	<ul style="list-style-type: none">Next census business case
Publicity	<ul style="list-style-type: none">This briefing will not be proactively released.

Recommended action

It is recommended that you:

- Discuss** this briefing at your officials' meeting of 10 February 2020.

AGREE / DISAGREE

Carol Slappendel
Deputy Chief Executive
Census and Collection Operations

Hon James Shaw
Minister of Statistics
Date:

Background

1. Stats NZ has submitted a budget bid for the next census for Budget 2020. This is supported by a business case.
2. In mid-January, The Treasury advised Stats NZ that it had recommended funding Approach 1 (the minimum viable option) with the following two features of Approach 2 (Stats NZ's preferred option):
 - \$2.75 million to bolster the Post Enumeration Survey; and
 - An additional \$3 million for communications and engagement.

Two additional sub-options have been developed for Treasury to consider

3. Stats NZ provided The Treasury with additional information (see the appendix to this briefing), that describes two additional options that add certain features to the minimum viable option. The first is an alternate to The Treasury's option, which we call 1a, plus another called option 1b that aims to improve 1a to enable investment objective 2 (relating to rich data) to be met. The Treasury has used this supplementary information to provide another briefing to the Minister of Finance.
4. This means that The Treasury has had three sub-options to consider that fall between options 1 and 2. The third option is the alternative option presented in the budget bid, which scales back the preferred option.

Treasury is proposing to reintroduce baselined census funding

5. The Treasury has admitted that a historical error was made in not continuing to baseline census funding. The Treasury is now proposing to reintroduce a baseline for the 2023 Census through MBU based on the average annual costs of the 2018 Census. This means that only the difference between the baseline and the total funding for the chosen option will need to be met through Budget 2020.
6. Stats NZ has indicated that we are comfortable with this approach, and that should also continue with the current good practice of preparing business cases and cost models from the ground up, even though part of the requested funding might already be available through a baseline.

Stats NZ still prefers approach / option 2

7. Stats NZ continues to prefer approach / option 2 for data quality reasons. The preferred option should achieve more equitable response rates across European, Māori and Pasifika groups, that are comparable to the 2006 Census.
8. For variables where no or limited administrative data is available to fill gaps (like iwi affiliation and language) the minimum viable option will likely only be able to produce **poor quality** data. There is also a high risk with this option that the quality level could fall to very poor and not be fit to release. Option 1a won't improve data quality. It also doesn't meet investment objective 2 in the business case.
9. All options including 1b and above should achieve responses rates of 90% or over which means data of **moderate quality** can be produced for these variables, although option 1b has the highest risk of not achieving this.
10. To output data for these variables that would be of **high** quality, Stats NZ would need to achieve response rates of 95% or over, which we think is an unrealistic target. Stats NZ has not developed any options at this level.

Appendix: Additional sub-options for a 2023 Census

Option 1a – De-risking the minimum viable option

Description

Treasury has proposed an option combining Approach 1 (the minimum viable option) with the following two features of Approach 2:

- \$2.75 million to bolster the PES; and
- An additional \$3 million for communications and engagement.

Stats NZ believes that if this is the maximum funding envelope available the additional \$5.75 million could be better utilised to reduce the significant risks associated with only funding the minimum viable option. This option is aimed at response rate risk reduction rather than actually increasing response rates compared to Option 1. Providing additional funding for PES will not directly improve the likelihood of producing fit for purpose census data for customers.

Cost

How the additional \$5.75 million in addition to full Option 1 funding would be re-allocated.

- \$0.4 million for additional online form development to lower barriers to response and reduce partial responses.
- \$0.9 million to increase the number of field hubs from 20 to 40 and/or to convert some field hubs into engagement centres more in line with their purpose in Option 2.
- \$0.8 million to be used in the field operation to compensate community organisations for their time and effort helping obtain responses and support recruitment of field staff.
- \$0.95 million for additional communications and engagement.
- \$2.7 million to increase field staff numbers in geographic area where most needed to achieve response rate targets.

Target Response Rate for Option Design

Option 1a has the same target response rate as Option 1. This is to achieve a similar response rate to the 2013 Census (National 92%, Māori and Pasifika 88%, Asian 91%).

Option 1b – Enabling Investment Objective 2

Description

This sub-option is about enabling the 2023 Census to meet Investment Objective 2: provide customers with timely and equitable access to rich and statistically sound data to support nationally and locally significant decisions. In particular the 'accuracy' measurement criteria – collection of at least 90% of responses from forms (individual and dwelling) at a national level and for Maori, Pasifika and Asian.

Cost

\$12.9 million additional costs in addition to Option 1.

- \$9.85 million to increase the percentage of dwellings in priority dwellings from 2% to 5% and to implement a higher persistence approach in 'staff delivery make contact' and 'priority' areas. See diagram below for detail.

- \$0.4 million for additional online form development to lower barriers to response and reduce partial responses.
- \$0.9 million to increase the number of field hubs from 20 to 40 and/or to convert some field hubs into engagement centres more in line with their purpose in Option 2.
- \$0.8 million to be used in the field operation to compensate community organisations for their time and effort helping obtain responses and support recruitment of field staff.
- \$0.95 million for additional communications and engagement.

Target Response Rate for Option Design

Option 1b is designed to reach a response rate of 90% of responses from forms for Māori and Pasifika. The National response rate is the same as Option 1 (92%)

Note: There is a response rate ceiling for any variation of Option 1 due to its dependence on the field force to achieve response rates. The ceiling can only be broken by using variations of Option 2 which introduces partnering and/or co-designing with Iwi and community groups. This partnering relies on being able to commit to long-term relationships that the long-lens in option 2 provides for.

Summary Comparison of Options

Option	Operating Cost	Operating Contingency (85 th percentile)	Total Operating	Capital Costs	Capital Contingency	Total Capital	Target Individual Response Rate
Option 1	\$193.7M	\$32.0M	\$225.7M	\$11.9M	-	\$11.9M	Similar to 2013 Census (National 92%, Māori and Pasifika 88%, Asian 91%)
Option 1a	\$199.5M	\$33.0M	\$232.5M	\$11.9M	-	\$11.9M	Similar to 2013 Census with increased confidence (National 92%, Māori 88%, Pasifika 88%, Asian 91%)
Option 1b	\$206.6M	\$34.2M	\$240.8M	\$11.9M	-	\$11.9M	92% National, Māori 90%, Pasifika 90%, Asian 91%
Alternative Scaled Back Option 2	\$219.2M	\$41.6M	\$260.8M	\$12.6M	-	\$12.6M	Similar to 2006 Census with decreased confidence (National 94%, Māori 93%, Pasifika 92%, Asian 91%)
Option 2	\$226.2M	\$42.9M	\$269.1	\$12.7M	-	\$12.7M	Similar to 2006 Census (National 94%, Māori 93%, Pasifika 92%, Asian 91%)

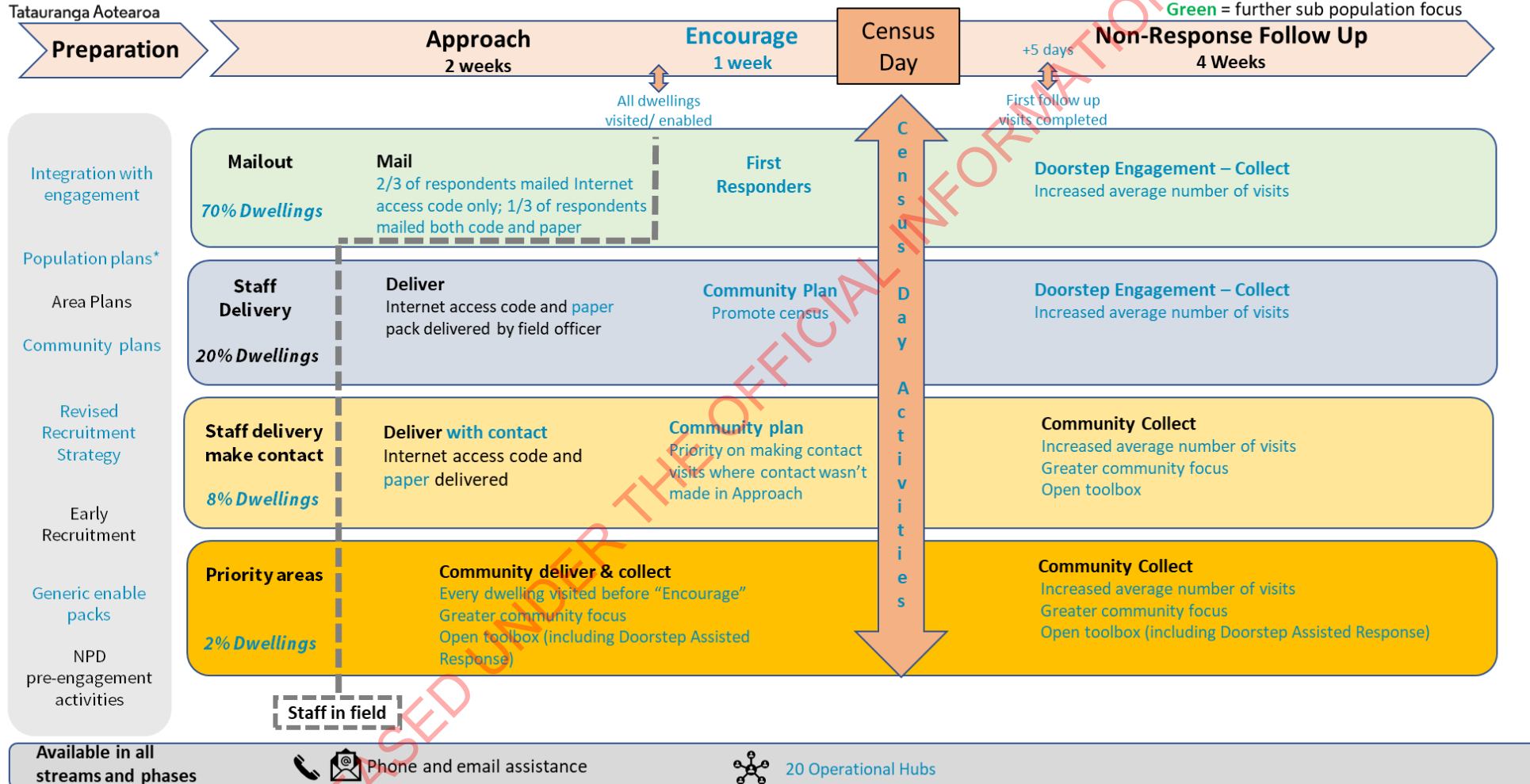
Assessment of Investment Objectives and Critical Success Factors

	Option 1	Option 1a	Option 1b	Alternative Scaled Back	Option 2
Investment objectives					
Deliver a census that produces data of enough statistical quality to meets statutory requirements	5	5	5	5	5
Provide customers with timely and equitable access to rich and statistically sound data to support nationally- and locally-significant decisions	2	2	3	4	4
Deliver a census model that positions Stats NZ to meet the future needs of its customers	2	2	2	4	5
Score	9/15	9/15	10/15	13/15	14/15
Critical success factors					
Strategic fit and business needs	2	2	2	4	4
Potential value for money	2	3	4	3	4
Supplier capacity and capability	3	3	3	3	3
Potential affordability	4	4	4	3	3
Potential achievability	3	4	4	3	4
Score	14/25	16/25	17/25	16/25	18/25
Total score	23/40	25/40	27/40	29/40	32/40
Ranking	5th	4th	3rd	2nd	1st

BUDGET SENSITIVE

Approach 1 – Minimum viable option

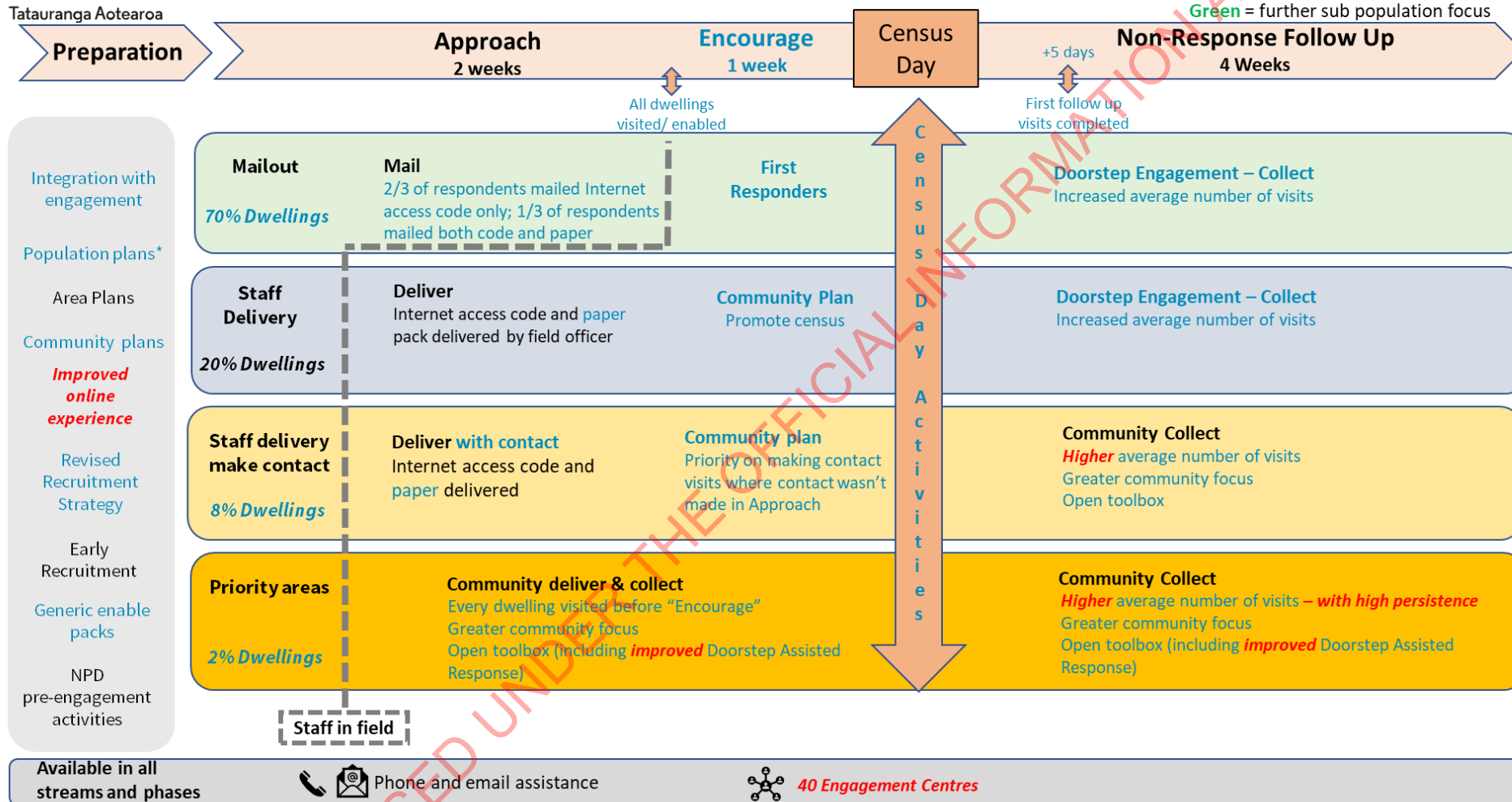
Red = Enrichment
Blue = Fix 2018 process
Green = further sub population focus



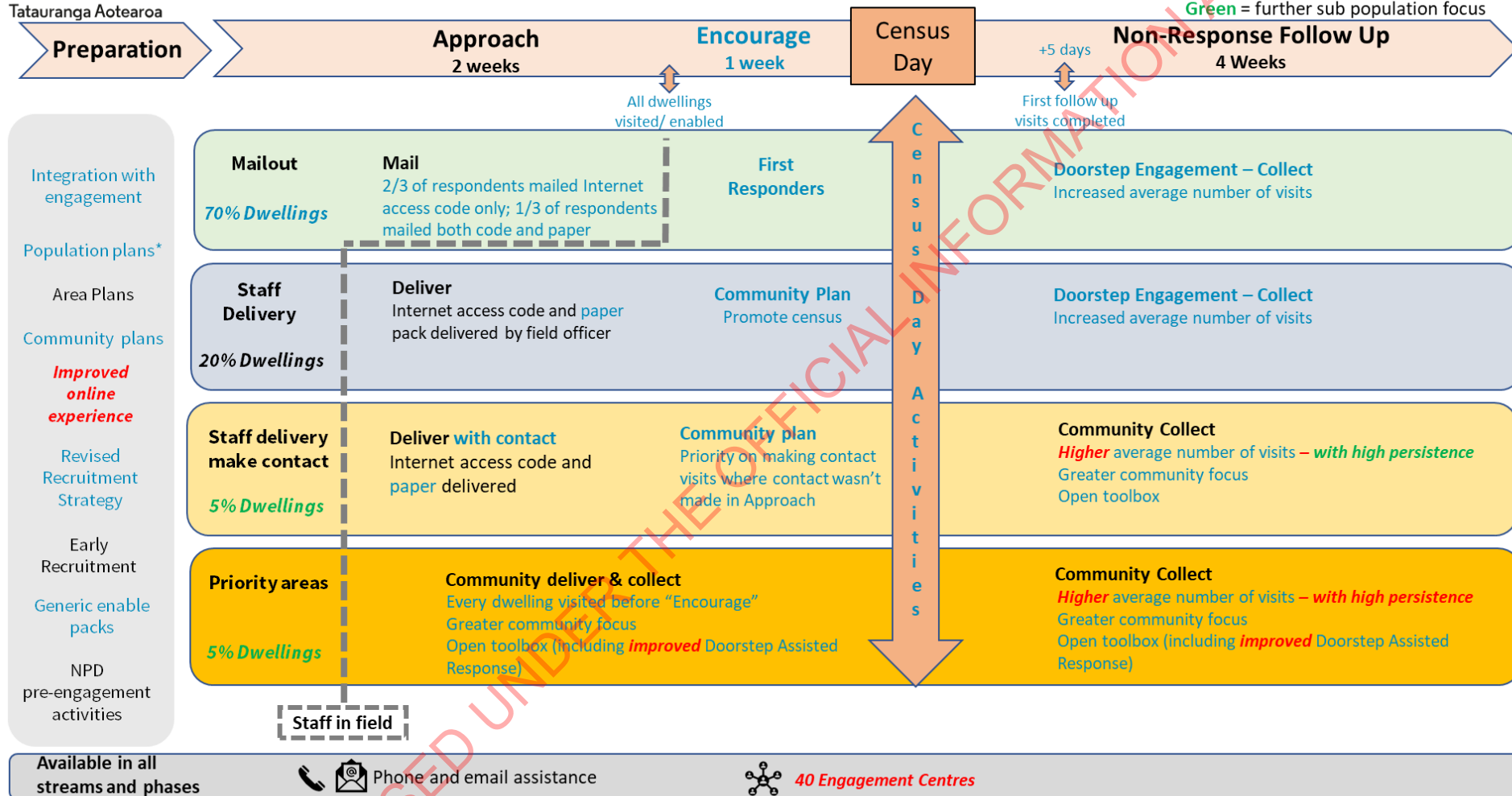
* Population plans are for groups such as youth and those with accessibility needs who may require additional strategies

Option 1A – De-risking the minimum viable product

Red = Enrichment
Blue = Fix 2018 process
Green = further sub population focus



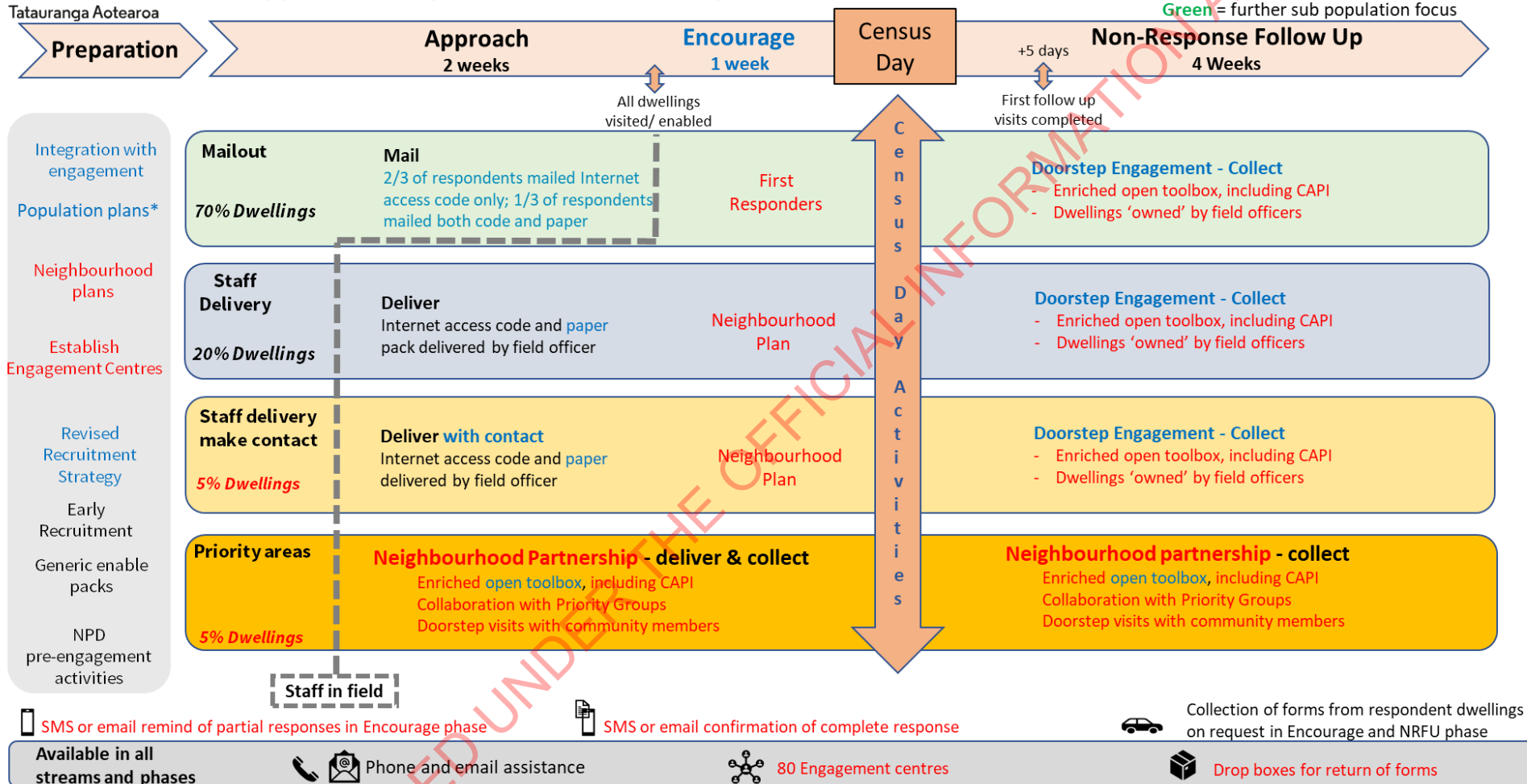
* Population plans are for groups such as youth and those with accessibility needs who may require additional strategies



* Population plans are for groups such as youth and those with accessibility needs who may require additional strategies

Approach 2 - Equitable outcome overlay

Red = Enrichment
Blue = Fix 2018 process
Green = further sub population focus



* Population plans are for groups such as youth and those with accessibility needs who may require additional strategies

BUDGET SENSITIVE