REG Data Quality Project - Asset Management Metric RAMM SQL Scripts

Introduction

This document contains scripts for each of the 32 data quality metrics that can be run on your network. It provides you with the ability to run the suite of data quality metrics on your RAMM database.

We recommend that the person running these scripts be familiar with SQL and the RAMM database tables and structure.

These scripts are for version 3.1 of the DQP Asset Management Report.

Selecting the SQL to run in RAMM

To run the scripts, simply copy and paste the contents in the grey box into RAMM SQL. The easiest way to do this is to hover over the top left corner of the box and click on the , right click and select copy.

Metrics that are time bound (ie reporting against financial years)

A number of the metrics interrogate the data for a specified time period. The desired financial year to be reported can be selected by changing the date specified at the top of the SQL script. This should be set to the end of the financial year. For example, results for the 2016/17 financial year would have a date of ‘2017-06-30‘.

TIO Metrics (Su1a, Su1b and Pa1)

These metrics use data from both RAMM and TIO. The scripts for these metrics only return the RAMM output. For example, the Su1a script output is the total area chipseal resurfacing renewals as-builted in RAMM. You need to divide this quantity by what you have reported as achieved in TIO and multiply by 100 to get each result as per the below example:

*Su1a = (RAMM chipseal as-built quantity / TIO chipseal achieved quantity) \* 100*

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| **Asset Management SQL Scripts** |

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| -- =============================================================================  --\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*ASSET MANAGEMENT DATA QUALITY\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- =============================================================================  --Initialise desired financial year by changing the date below.  --Example: Results for 2016/17 would have a date of 2017-06-30    create table #tempDate(targetDate datetime);  insert #tempDate(targetDate) values('2018-06-30');  --------------------------------------------------------------------------------  --Road network complete  --Alignment in length between carriageways and centrelines.  --Percentage of network length (based on carriageway sections) where map centreline length within 10% of measured road length.  --Where road type = "L" and owner type = "L"  --Ref - AM-Ca1  --------------------------------------------------------------------------------  select sum(c.length\_m) as total\_cway\_length  into #temp\_total\_cway\_length  from carr\_way c  where road\_id in (select road\_id from roadnames  where road\_type = 'L')  and owner\_type = 'L';  select distinct csl.road\_id, csl.map\_sequence, csl.length\_m as temp\_length  into #temp\_length  from centreline\_segment\_length csl  join carr\_way c  on csl.road\_id = c.road\_id  where csl.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and owner\_type = 'L';  select road\_id, sum(temp\_length) as centre\_length  into #temp\_centre\_length  from #temp\_length  group by road\_id;  select road\_id, sum(length\_m) as cway\_length  into #temp\_cway\_length  from carr\_way  where road\_id in (select road\_id from roadnames  where road\_type = 'L')  and owner\_type = 'L'  group by road\_id;  select l.road\_id, centre\_length, cway\_length,  (case when cast(centre\_length as decimal)/cast(cway\_length as decimal) <=1.1 and cast(centre\_length as decimal)/cast(cway\_length as decimal) >=0.9 then 1 else 0 end) as aligned\_length  into #temp\_aligned\_length  from #temp\_centre\_length l  join #temp\_cway\_length c  on l.road\_id = c.road\_id  where cway\_length > 0;  select sum(cway\_length) as total\_centre\_length  into #temp\_total\_centre\_length  from #temp\_aligned\_length  where aligned\_length = 1;  select (cast(total\_centre\_length as decimal)) / (cast(total\_cway\_length as decimal)) \*100 as AM\_Ca1 --pc\_length\_aligned  into #temp\_cway\_1  from #temp\_total\_centre\_length, #temp\_total\_cway\_length;  drop table #temp\_total\_cway\_length, #temp\_length, #temp\_centre\_length, #temp\_cway\_length, #temp\_aligned\_length, #temp\_total\_centre\_length;  --------------------------------------------------------------------------------  --ONRC categories assigned to new carriageways  --Percentage of carriageway sections added in the reported financial year with an ONRC category assigned.  --Where road type = "L" and owner type = "L".  --Ref - AM-Ca2  --------------------------------------------------------------------------------  select count(\*) as total\_cway\_onrc  into #temp\_total\_cway\_onrc  from carr\_way c  join onrc\_cway\_view o  on o.carr\_way\_no = c.carr\_way\_no  where c.added\_on between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate)  and c.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and c.owner\_type = 'L'  and o.category\_id is not null;  select count(\*) as total\_cway\_added  into #temp\_total\_cway\_added  from carr\_way c  where c.added\_on between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate)  and c.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and c.owner\_type = 'L';    select (cast(total\_cway\_onrc as decimal)) / (cast(total\_cway\_added as decimal)) \*100 as AM\_Ca2 --pc\_new\_cway\_with\_onrc  into #temp\_cway\_2  from #temp\_total\_cway\_added, #temp\_total\_cway\_onrc;  drop table #temp\_total\_cway\_added, #temp\_total\_cway\_onrc;  --------------------------------------------------------------------------------  --Assigned ONRC category aligns with traffic  --Percentage of carriageway sections where the place function doesn't override the traffic where the assigned ONRC is aligned with latest traffic estimate AADT and daily heavy traffic .  --Where Rules Override is "False".  --Ref - AM-Ca3  --------------------------------------------------------------------------------  -- Low Volume Category Carriageway Section with consistent AADT  select count(\*) as tot\_low\_vol  into #temp\_tot\_low\_vol  from onrc\_cway\_view o  join carr\_way\_view c  on o.carr\_way\_no = c.carr\_way\_no  where o.rules\_override = 'false'  and o.category\_id = 1  and ((c.traffic\_adt\_est < 50 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <25)  or (c.traffic\_adt\_est < 200 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <25));  update #temp\_tot\_low\_vol  set tot\_low\_vol = 0  where tot\_low\_vol is null;  -- Access Category Carriageway Section with consistent AADT  select count(\*) as tot\_access  into #temp\_tot\_access  from onrc\_cway\_view o  join carr\_way\_view c  on o.carr\_way\_no = c.carr\_way\_no  where o.rules\_override = 'false'  and o.category\_id = 2  and ((c.traffic\_adt\_est between 50 and 199 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <25)  or (c.traffic\_adt\_est between 200 and 999 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <25));  update #temp\_tot\_access  set tot\_access = 0  where tot\_access is null;  -- Secondary Collector Category Carriageway Section with consistent AADT  select count(\*) as tot\_sec\_coll  into #temp\_tot\_sec\_coll  from onrc\_cway\_view o  join carr\_way\_view c  on o.carr\_way\_no = c.carr\_way\_no  where o.rules\_override = 'false'  and o.category\_id = 3  and ((c.traffic\_adt\_est between 200 and 999 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <150)  or (c.traffic\_adt\_est between 1000 and 2999 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <150)  or (c.traffic\_adt\_est <200 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 25 and 149)  or (c.traffic\_adt\_est <3000 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 25 and 149));  update #temp\_tot\_sec\_coll  set tot\_sec\_coll = 0  where tot\_sec\_coll is null;  -- Primary Collector Category Carriageway Section with consistent AADT  select count(\*) as tot\_pri\_coll  into #temp\_tot\_pri\_coll  from onrc\_cway\_view o  join carr\_way\_view c  on o.carr\_way\_no = c.carr\_way\_no  where o.rules\_override = 'false'  and o.category\_id = 4  and ((c.traffic\_adt\_est between 1000 and 2999 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <300)  or (c.traffic\_adt\_est between 3000 and 4999 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <300)  or (c.traffic\_adt\_est <1000 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 150 and 299)  or (c.traffic\_adt\_est <3000 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 150 and 299));  update #temp\_tot\_pri\_coll  set tot\_pri\_coll = 0  where tot\_pri\_coll is null;  -- Arterial Category Carriageway Section with consistent AADT  select count(\*) as tot\_art  into #temp\_tot\_art  from onrc\_cway\_view o  join carr\_way\_view c  on o.carr\_way\_no = c.carr\_way\_no  where o.rules\_override = 'false'  and o.category\_id = 5  and ((c.traffic\_adt\_est between 3000 and 9999 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <400)  or (c.traffic\_adt\_est between 5000 and 14999 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <400)  or (c.traffic\_adt\_est <3000 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 300 and 399)  or (c.traffic\_adt\_est <5000 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 300 and 399));  update #temp\_tot\_art  set tot\_art = 0  where tot\_art is null;  -- Regional Category Carriageway Section with consistent AADT  select count(\*) as tot\_reg  into #temp\_tot\_reg  from onrc\_cway\_view o  join carr\_way\_view c  on o.carr\_way\_no = c.carr\_way\_no  where o.rules\_override = 'false'  and o.category\_id = 6  and ((c.traffic\_adt\_est between 10000 and 14999 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <800)  or (c.traffic\_adt\_est between 15000 and 24999 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <800)  or (c.traffic\_adt\_est <10000 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 400 and 799)  or (c.traffic\_adt\_est <15000 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 400 and 799));  update #temp\_tot\_reg  set tot\_reg = 0  where tot\_reg is null;  -- National Category Carriageway Section with consistent AADT  select count(\*) as tot\_nat  into #temp\_tot\_nat  from onrc\_cway\_view o  join carr\_way\_view c  on o.carr\_way\_no = c.carr\_way\_no  where o.rules\_override = 'false'  and o.category\_id = 7  and ((c.traffic\_adt\_est between 15000 and 19999 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <1200)  or (c.traffic\_adt\_est between 25000 and 34999 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) <1200)  or (c.traffic\_adt\_est <15000 and c.urban\_rural = 'R' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 800 and 1199)  or (c.traffic\_adt\_est <25000 and c.urban\_rural = 'U' and cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) between 800 and 1199));  update #temp\_tot\_nat  set tot\_nat = 0  where tot\_nat is null;  -- High Volume Category Carriageway Section with consistent AADT  select count(\*) as tot\_high\_vol  into #temp\_tot\_high\_vol  from onrc\_cway\_view o  join carr\_way\_view c  on o.carr\_way\_no = c.carr\_way\_no  where o.rules\_override = 'false'  and o.category\_id = 8  and ((c.traffic\_adt\_est >= 20000 and c.urban\_rural = 'R')  or (c.traffic\_adt\_est >= 35000 and c.urban\_rural = 'U')  or cast(c.traffic\_adt\_est as decimal)\*(cast(c.loading\_pc\_heavy as decimal)/100) >= 1200);  update #temp\_tot\_high\_vol  set tot\_high\_vol = 0  where tot\_high\_vol is null;  -- Total sections with ONRC  select count(\*) tot\_onrc  into #temp\_tot\_onrc  from onrc\_cway\_view o  join carr\_way\_view c  on o.carr\_way\_no = c.carr\_way\_no  where rules\_override = 'false'  and category\_id is not null;  select (cast((tot\_low\_vol + tot\_access + tot\_sec\_coll + tot\_pri\_coll + tot\_art + tot\_reg + tot\_nat + tot\_high\_vol) as decimal)/cast(tot\_onrc as decimal) \* 100) as AM\_Ca3 --pc\_onrc\_traffic\_alignment  into #temp\_cway\_3  from #temp\_tot\_low\_vol, #temp\_tot\_access, #temp\_tot\_sec\_coll, #temp\_tot\_pri\_coll, #temp\_tot\_art, #temp\_tot\_reg, #temp\_tot\_nat, #temp\_tot\_high\_vol, #temp\_tot\_onrc;  drop table #temp\_tot\_low\_vol, #temp\_tot\_access, #temp\_tot\_sec\_coll, #temp\_tot\_pri\_coll, #temp\_tot\_art, #temp\_tot\_reg, #temp\_tot\_nat, #temp\_tot\_high\_vol, #temp\_tot\_onrc;  --------------------------------------------------------------------------------  --Treatment Length dimensions match sealed area  --Percentage of sealed treatment length records with a recorded sealed area <150% of the length \* width.  --Excludes disabled treatment lengths and pavement type "Bridge".  --Ref - AM-TL1  --------------------------------------------------------------------------------  select count(\*) as tls\_tot  into #temp\_tls\_tot  from treatment\_length t  where tl\_disabled = 'N'  and t.pavement\_type in ('T', 'S', 'C')  and t.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and t.asset\_owner = 'L';  select count(\*) as tls\_less\_150  into #temp\_tls\_less\_150  from treatment\_length t  where tl\_disabled = 'N'  and tl\_sealed\_area < (tl\_length\_m\*tl\_width\*1.5)  and t.pavement\_type in ('T', 'S', 'C')  and t.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and t.asset\_owner = 'L';  select (cast(tls\_less\_150 as decimal)) / (cast(tls\_tot as decimal)) \*100 as AM\_TL1 --pc\_TL\_less\_150\_sealed\_area  into #temp\_treat\_1  from #temp\_tls\_less\_150, #temp\_tls\_tot;  drop table #temp\_tls\_less\_150, #temp\_tls\_tot;  -- =============================================================================  --\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*ASSET INVENTORY\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- =============================================================================  --------------------------------------------------------------------------------  --Achieved chipseal resurfacing renewal programme as-builted  --Percentage of achieved chipseal resurfacing renewals reported in TIO and as-builted in RAMM (in m2) for reported financial year  --Where work\_category\_code = 212  --Ref - AM-Su1a  --------------------------------------------------------------------------------  select sum(case when s.surf\_width is not null then s.surf\_width\*s.length\_m else c.cway\_width\*s.length\_m end) as AM\_Su1a  into #temp\_surf\_1a  from surface\_structure s  join carr\_way c  on s.road\_id = c.road\_id  and s.carrway\_start\_m = c.carrway\_start\_m  join surf\_material m  on s.surf\_material = m.surf\_material  join fund\_work\_origin fw  on s.work\_origin\_id = fw.id  join fund\_work\_category fc  on fw.work\_category\_id = fc.id  where surf\_sectioning = 'C'  and major\_surface = 'Y'  and surf\_structure\_set = 'T'  and m.surf\_category = 'CHIP'  and s.surface\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate)  and fc.work\_category\_code = '212';  --------------------------------------------------------------------------------  --Achieved asphaltic concrete resurfacing renewal programme as-builted  --Percentage of achieved asphaltic concrete resurfacing renewals reported in TIO and as-builted in RAMM (in m2) for reported financial year  --Where work\_category\_code = 212  --Ref - AM-Su1b  --------------------------------------------------------------------------------  select sum(case when cs.lane\_coverage is not null then cs.lane\_coverage\*ss.length\_m else c.lanes\*ss.length\_m end)/1000.00 as AM\_Su1b  into #temp\_surf\_1b  from surface\_structure ss  join c\_surface cs  on cs.c\_surface\_id = ss.c\_surface\_id  join carr\_way c  on ss.road\_id = c.road\_id  and ss.carrway\_start\_m = c.carrway\_start\_m  join surf\_material m  on ss.surf\_material = m.surf\_material  join fund\_work\_origin fw  on ss.work\_origin\_id = fw.id  join fund\_work\_category fc  on fw.work\_category\_id = fc.id  where ss.surf\_sectioning = 'C'  and ss.major\_surface = 'Y'  and ss.surf\_structure\_set = 'T'  and m.surf\_category = 'AM'  and ss.surface\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate)  and fc.work\_category\_code = '212';  --------------------------------------------------------------------------------  --Surface records have valid attribute data  --Percentage of top surface records with a valid chip size (AM>=7, CS<=6, 2nd chip recorded for 2CHIP and RACK), surface function (AC <> "M" or "1"), and a recorded top surface life (not null)  --Where owner type = "L".  --Ref - AM-Su2  --------------------------------------------------------------------------------  --Valid AC  SELECT count(\*) valid\_ac  into #temp\_valid\_ac  from treatment\_length t  join surf\_material sm  on t.surf\_material = sm.surf\_material  where surf\_category = 'AM'  and first\_chip\_size >= 7  and surf\_function not in ('M', '1')  and top\_surface\_life is not null  and surf\_binder is not null  and tl\_disabled = 'N'  and pavement\_type in ('T', 'S')  and t.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and t.asset\_owner = 'L';  --Valid Chip\_2coat  SELECT count(\*) valid\_chip2  into #temp\_valid\_chip2  from treatment\_length t  join surf\_material sm  on t.surf\_material = sm.surf\_material  where surf\_category = 'CHIP'  and t.surf\_material in ('2CHIP', 'RACK')  and first\_chip\_size <= 6  and top\_surface\_life is not null  and surf\_binder is not null  and second\_chip\_size is not null  and tl\_disabled = 'N'  and pavement\_type in ('T', 'S')  and t.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and t.asset\_owner = 'L';  --Valid Chip\_1coat  SELECT count(\*) valid\_chip1  into #temp\_valid\_chip1  from treatment\_length t  join surf\_material sm  on t.surf\_material = sm.surf\_material  where surf\_category = 'CHIP'  and t.surf\_material not in ('2CHIP', 'RACK')  and first\_chip\_size <= 6  and top\_surface\_life is not null  and surf\_binder is not null  and tl\_disabled = 'N'  and pavement\_type in ('T', 'S')  and t.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and t.asset\_owner = 'L';  SELECT count(\*) tot\_tls  into #temp\_tot\_tls  from treatment\_length t  join surf\_material sm  on t.surf\_material = sm.surf\_material  where surf\_category in ('AM', 'CHIP')  and tl\_disabled = 'N'  and pavement\_type in ('T', 'S')  and t.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and t.asset\_owner = 'L';  select (cast(valid\_ac + valid\_chip2 + valid\_chip1 as decimal) / cast(tot\_tls as decimal))\*100 as AM\_Su2 --pc\_valid\_surf  into #temp\_surf\_2  from #temp\_valid\_ac, #temp\_valid\_chip2, #temp\_valid\_chip1, #temp\_tot\_tls;  drop table #temp\_valid\_ac, #temp\_valid\_chip2, #temp\_valid\_chip1, #temp\_tot\_tls;  --------------------------------------------------------------------------------  --Pavement renewal programme achieved and as-builted  --Percentage of planned and achieved length reported in TIO as-builted in RAMM (in m2) for last financial year  --Where work category is 214  --Ref - AM-Pa1  --------------------------------------------------------------------------------  select sum(case when p.width is not null then p.width\*p.length\_m else t.tl\_width\*p.length\_m end) as AM\_Pa1  into #temp\_pave\_1  from pave\_structure p  join treatment\_length t  on p.road\_id = t.road\_id  and p.treat\_length\_id = t.treat\_length\_id  join fund\_work\_origin fw  on p.work\_origin\_id = fw.id  join fund\_work\_category fc  on fw.work\_category\_id = fc.id  where structure\_set = 'M'  and layer\_no = 1  and p.layer\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate)  and fc.work\_category\_code = '214';  --------------------------------------------------------------------------------  --Pavement layer records have valid attribute data  --Percentage of pavement layer records with a layer date in the reported financial year and a known material and source, recorded width when not full width and thickness between 50mm and 500mm.  --Excludes subgrade records.  --Ref - AM-Pa2  --------------------------------------------------------------------------------  select count(layer\_id) as all\_pave  into #temp\_all\_pave  from pave\_layer p  join carr\_way on (carr\_way.road\_id = p.road\_id)  and (p.start\_m >= carr\_way.carrway\_start\_m  and p.start\_m < carr\_way.carrway\_end\_m)  and carr\_way.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and owner\_type = 'L'  and layer\_subgrade = 'L'  and layer\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate);  select count(layer\_id) as valid\_pave  into #temp\_valid\_pave  from pave\_layer p  join carr\_way on (carr\_way.road\_id = p.road\_id)  and (p.start\_m >= carr\_way.carrway\_start\_m  and p.start\_m < carr\_way.carrway\_end\_m)  and carr\_way.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and owner\_type = 'L'  where layer\_subgrade = 'L'  and thickness between 50 and 500  and ((width is not null and full\_width\_flag = 'N') or  full\_width\_flag = 'Y')  and pave\_material is not null  and pave\_material not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN', 'UNKNOW')  and pave\_source is not null  and pave\_source not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN', 'UNKNOW')  and layer\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate);    select (cast(valid\_pave as decimal)) / (cast(all\_pave as decimal))\*100 as AM\_Pa2 -- pc\_pave\_layer\_valid  into #temp\_pave\_2  from #temp\_valid\_pave, #temp\_all\_pave;  drop table #temp\_valid\_pave;  --------------------------------------------------------------------------------  --Pavement layer records with work origin  --Percentage of pavement layer records added in the reported financial year with a recorded work origin/category.  --Excludes subgrade records.  --Ref - AM-Pa3  --------------------------------------------------------------------------------  {Select current top surfaces with works origin/category}  select count(layer\_id) as work\_origin\_recorded  into #temp\_work\_origin  from pave\_layer p  join carr\_way on (carr\_way.road\_id = p.road\_id)  and (p.start\_m >= carr\_way.carrway\_start\_m  and p.start\_m < carr\_way.carrway\_end\_m)  and carr\_way.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and owner\_type = 'L'  and layer\_subgrade = 'L'  and work\_origin\_id is not null  and layer\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate);  update #temp\_work\_origin  set work\_origin\_recorded = 0  where work\_origin\_recorded is null;  {Express as % surfaces with works origin/category}  select (cast(work\_origin\_recorded as decimal)) / (cast(all\_pave as decimal)) \*100 as AM\_Pa3 --pc\_layer\_with\_works\_origin  into #temp\_pave\_3  from #temp\_all\_pave, #temp\_work\_origin;  drop table #temp\_work\_origin, #temp\_all\_pave;  --------------------------------------------------------------------------------  --Footpath records have valid dimensions, material and known age  --Percentage of footpath records with a valid length (not null or zero) and width (>0.7m and <20m, and not null), a known surface material and constructed/surface date.  --Where owner type = "L".  --Ref - AM-Fp1  --------------------------------------------------------------------------------  select count(footpath\_id) as valid\_fp  into #temp\_valid\_fp  from footpath  where asset\_owner = 'L'  and width > 0.7 and width < 20  and length\_m > 0  and footpath\_surf\_mat is not null  and footpath\_surf\_mat not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN')  and (constructed is not null or surface\_date is not null);  select count(footpath\_id) as all\_fp  into #temp\_all\_fp  from footpath  where asset\_owner = 'L';  select (cast(valid\_fp as decimal))/(cast(all\_fp as decimal)) \*100 as AM\_Fp1  into #temp\_fpath\_1  from #temp\_valid\_fp, #temp\_all\_fp;  drop table #temp\_valid\_fp, #temp\_all\_fp;  --------------------------------------------------------------------------------  --Footpath asset records maintained  --Percentage of footpath length added within the last three financial years.  --Where owner type = "L".  --Ref - AM-Fp2  --------------------------------------------------------------------------------  select sum(length\_m) fp\_length\_added  into #temp\_fp\_length\_added  from footpath  where asset\_owner = 'L'  and added\_on between ((select targetDate from #tempDate) - 1095) and (select targetDate from #tempDate);  select sum(length\_m) fp\_length\_tot  into #temp\_fp\_length\_tot  from footpath  where asset\_owner = 'L';  select (cast(fp\_length\_added as decimal))/(cast(fp\_length\_tot as decimal)) \*100 as AM\_Fp2  into #temp\_fpath\_2  from #temp\_fp\_length\_added, #temp\_fp\_length\_tot;  drop table #temp\_fp\_length\_added, #temp\_fp\_length\_tot;  --------------------------------------------------------------------------------  --Culvert assets known  --Percentage of culvert records with a known length, size, material and constructed/surface date.  --Where owner type = "L".  --Ref - AM-Dr1  --------------------------------------------------------------------------------  select count(drainage\_id) as known\_culverts  into #temp\_known\_culverts  from drainage  where drain\_culvert is not null  and asset\_owner = 'L'  and drain\_length is not null  and drain\_length > 0  and drain\_size is not null  and drain\_size > 0  and drain\_material is not null  and drain\_material not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN')  and construct\_date is not null;  select count(drainage\_id) as culvert\_records  into #temp\_culvert\_records  from drainage  where drain\_culvert is not null  and asset\_owner = 'L';  select (cast(known\_culverts as decimal))/(cast(culvert\_records as decimal)) \*100 as AM\_Dr1  into #temp\_drain\_1  from #temp\_known\_culverts, #temp\_culvert\_records;  drop table #temp\_known\_culverts, #temp\_culvert\_records;  --------------------------------------------------------------------------------  --Culvert asset records maintained  --Percentage of culvert length added within the last three financial years.  --Where road\_type = "L" owner type = "L".  --Ref - AM-Dr2  --------------------------------------------------------------------------------  select sum(d.drain\_length) as cul\_length\_added  into #temp\_cul\_len\_added  from drainage d  left join carr\_way c  on d.road\_id = c.road\_id  and d.carrway\_start\_m = c.carrway\_start\_m  where d.drain\_culvert is not null  and c.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and owner\_type = 'L'  and d.added\_on between ((select targetDate from #tempDate) - 1095) and (select targetDate from #tempDate);  select sum(d.drain\_length) as cul\_length\_tot  into #temp\_cul\_len\_tot  from drainage d  left join carr\_way c  on d.road\_id = c.road\_id  and d.carrway\_start\_m = c.carrway\_start\_m  where d.drain\_culvert is not null  and c.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and owner\_type = 'L';    select cast(cul\_length\_added as decimal)/cast(cul\_length\_tot as decimal)\*100 as AM\_Dr2  into #temp\_drain\_2  from #temp\_cul\_len\_added, #temp\_cul\_len\_tot;  drop table #temp\_cul\_len\_added, #temp\_cul\_len\_tot;  --------------------------------------------------------------------------------  --SWC asset known  --Percentage of kerb and channel records with a recorded length (eg not Null or zero length), a known type and construction date.  --Where owner type = "L" and swc type not 'SWCD' or 'SWCS'.  --Ref - AM-SW1  --------------------------------------------------------------------------------  select count(sw\_channel\_id) as valid\_swc  into #temp\_recorded  from sw\_channel  where asset\_owner = 'L'  and length\_m > 0  and length\_m is not null  and swc\_type is not null  and swc\_type not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN')  and swc\_type not in ('SWCD', 'SWCS')  and constructed is not null;  select count(sw\_channel\_id) as swc\_records  into #temp\_swc\_records  from sw\_channel  where asset\_owner = 'L'  and swc\_type not in ('SWCD', 'SWCS');  select (cast(valid\_swc as decimal))/(cast(swc\_records as decimal)) \*100 as AM\_SW1  into #temp\_swc\_1  from #temp\_recorded, #temp\_swc\_records;  drop table #temp\_recorded, #temp\_swc\_records;  --------------------------------------------------------------------------------  --SWC asset records maintained  --Percentage of kerb and channel length added within the last three financial years.  --Where owner type = "L" and swc type not 'SWCD' or 'SWCS'.  --Ref - AM-SW2  --------------------------------------------------------------------------------  select sum(length\_m) as swc\_len\_added  into #temp\_swc\_len\_added  from sw\_channel  where asset\_owner = 'L'  and swc\_type not in ('SWCD', 'SWCS')  and added\_on between ((select targetDate from #tempDate) - 1095) and (select targetDate from #tempDate);  select sum(length\_m) as swc\_len\_tot  into #temp\_swc\_len\_tot  from sw\_channel  where asset\_owner = 'L'  and swc\_type not in ('SWCD', 'SWCS');  select (cast(swc\_len\_added as decimal))/(cast(swc\_len\_tot as decimal)) \*100 as AM\_SW2  into #temp\_swc\_2  from #temp\_swc\_len\_added, #temp\_swc\_len\_tot;  drop table #temp\_swc\_len\_added, #temp\_swc\_len\_tot;  --------------------------------------------------------------------------------  --Sign asset known  --Percentage of sign records with known dimensions, material and installation date  --Where owner type = "L".  --Ref - AM-Si1  --------------------------------------------------------------------------------  select count(sign\_id) known\_signs  into #temp\_known\_signs  from sign s  where s.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and replace\_date is null  and sign\_width > 0  and sign\_height > 0  and install\_date is not null  and (bground\_material is not null and bground\_material not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN'));  select count(sign\_id) all\_signs  into #temp\_all\_signs  from sign s  where s.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and replace\_date is null;  select (cast(known\_signs as decimal) / cast(all\_signs as decimal))\*100 as AM\_Si1  into #temp\_signs\_1  from #temp\_known\_signs, #temp\_all\_signs;  drop table #temp\_known\_signs;  --------------------------------------------------------------------------------  --Sign asset associated to a 'road'  --Percentage of sign records within limits of roads (>= minimum carriageway start and <= maximum carriageway end) and with an offset less than 40m.  --Where owner type = "L".  --Ref - AM-Si2  --------------------------------------------------------------------------------  --Find the minimum start and maximum end for each road in carr\_way  select road\_id, min(carrway\_start\_m) min\_start, max(carrway\_end\_m) max\_end  into #tmp\_min\_max  from carr\_way  where carr\_way.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and carr\_way.owner\_type = 'L'  group by carr\_way.road\_id;  select count(\*) located\_signs  into #temp\_located\_signs  from sign s  join #tmp\_min\_max tm on (s.road\_id = tm.road\_id and (s.location >= tm.min\_start  and s.location <= tm.max\_end))  where s.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and replace\_date is null  and offset < 40;  select (cast(located\_signs as decimal) / cast(all\_signs as decimal))\*100 as AM\_Si2  into #temp\_signs\_2  from #temp\_located\_signs, #temp\_all\_signs;  drop table #temp\_located\_signs, #tmp\_min\_max;  --------------------------------------------------------------------------------  --Sign Renewal Activity in last 3 Financial Years  --Percentage of sign records replaced during last three financial years.  --Where road\_type = 'L'  --Ref - AM-Si3  --------------------------------------------------------------------------------  select count(sign\_id) as replace\_sign  into #temp\_replaced\_signs  from sign s  where s.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and replace\_date between ((select targetDate from #tempDate) - 1095) and (select targetDate from #tempDate);  select (cast(replace\_sign as decimal)) / (cast(all\_signs as decimal)) \* 100 as AM\_Si3 --pc\_signs\_replaced  into #temp\_signs\_3  from #temp\_replaced\_signs, #temp\_all\_signs;  drop table #temp\_replaced\_signs, #temp\_all\_signs;  --------------------------------------------------------------------------------  --Railing asset known  --Percentage of railing records with a recorded length, type, material and installation date.  --Where road type = "L"  --Ref - AM-Ra1  --------------------------------------------------------------------------------  select count(railing\_id) known\_railings  into #temp\_known\_railings  from railings r  where r.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and length\_m > 0  and (railing\_type is not null and railing\_type not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN'))  and (railing\_material is not null and railing\_material not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN'))  and install\_date is not null;  select count(railing\_id) all\_railings  into #temp\_all\_railings  from railings r  where r.road\_id in (select road\_id from roadnames  where road\_type = 'L');  select (cast(known\_railings as decimal) / cast(all\_railings as decimal))\*100 as AM\_Ra1 --pc\_known\_railings  into #temp\_rail\_1  from #temp\_known\_railings, #temp\_all\_railings;  drop table #temp\_known\_railings, #temp\_all\_railings;  --------------------------------------------------------------------------------  --Railing asset records maintained  --Percentage of railing length added in the previous three financial years.  --Where road type = "L"  --Ref - AM-Ra2  --------------------------------------------------------------------------------  select sum(length\_m) as railing\_act  into #temp\_railing\_act  from railings r  where r.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and added\_on between ((select targetDate from #tempDate) - 1095) and (select targetDate from #tempDate);  select sum(length\_m) as railing\_all  into #temp\_railing\_all  from railings r  where r.road\_id in (select road\_id from roadnames  where road\_type = 'L');  select (cast(railing\_act as decimal)) / (cast(railing\_all as decimal)) \* 100 as AM\_Ra2 --pc\_railing\_added  into #temp\_rail\_2  from #temp\_railing\_act, #temp\_railing\_all;  drop table #temp\_railing\_act, #temp\_railing\_all;  --------------------------------------------------------------------------------  --Retaining Wall assets known  --Percentage of railing records with a recorded length, average height, material and constructed date.  --Where road type = "L"  --Ref - AM-RW1  --------------------------------------------------------------------------------  select count(\*) known\_ret\_walls  into #temp\_known\_ret\_walls  from retaining\_wall r  where r.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and length\_m > 0  and height\_m\_avg > 0  and (ret\_wall\_type is not null and ret\_wall\_type not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN'))  and (ms\_material is not null and ms\_material not in ('U', 'UN', 'UK', 'UNK', 'UKN', 'UNKN'))  and constructed is not null;  select count(\*) all\_ret\_walls  into #temp\_all\_ret\_walls  from retaining\_wall r  where r.road\_id in (select road\_id from roadnames  where road\_type = 'L');  select (cast(known\_ret\_walls as decimal) / cast(all\_ret\_walls as decimal))\*100 as AM\_RW1 --pc\_known\_ret\_walls  into #temp\_rwall\_1  from #temp\_known\_ret\_walls, #temp\_all\_ret\_walls;  drop table #temp\_known\_ret\_walls, #temp\_all\_ret\_walls;  --------------------------------------------------------------------------------  --Retaining wall asset records maintained  --Percentage of retaining wall length added in the previous five financial years.  --Where road type = "L"  --Ref - AM-RW2  --------------------------------------------------------------------------------  select sum(length\_m) as ret\_wall\_added  into #temp\_ret\_wall\_added  from retaining\_wall r  where r.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and r.added\_on between ((select targetDate from #tempDate) - 1825) and (select targetDate from #tempDate);  select sum(length\_m) as ret\_wall\_tot  into #temp\_ret\_wall\_tot  from retaining\_wall r  where r.road\_id in (select road\_id from roadnames  where road\_type = 'L');  select (cast(ret\_wall\_added as decimal)) / (cast(ret\_wall\_tot as decimal)) \* 100 as AM\_RW2 --pc\_ret\_wall\_added  into #temp\_rwall\_2  from #temp\_ret\_wall\_added, #temp\_ret\_wall\_tot;  drop table #temp\_ret\_wall\_added, #temp\_ret\_wall\_tot;  --------------------------------------------------------------------------------  --Streetlights associated with a 'road'  --Percentage of streetlight pole records within limits of road (>= minimum carriageway start and <= maximum carriageway end) and an offset less than 40m.  --Where road type = "L".  --Ref - AM-SL1  --------------------------------------------------------------------------------  --Find the minimum start and maximum end for each road in carr\_way  select road\_id, min(carrway\_start\_m) min\_start, max(carrway\_end\_m) max\_end  into #temp\_min\_max  from carr\_way  where carr\_way.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and carr\_way.owner\_type = 'L'  group by carr\_way.road\_id;  Select count(\*) located\_pole  into #temp\_located\_pole  from sl\_pole s  join #temp\_min\_max tm on (s.road\_id = tm.road\_id and (s.location >= tm.min\_start  and s.location <= tm.max\_end))  where s.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and replace\_date is null  and offset < 40;  Select count(\*) all\_pole  into #temp\_all\_pole  from sl\_pole s  where s.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and replace\_date is null;  select (cast(located\_pole as decimal)/cast(all\_pole as decimal))\*100 as AM\_SL1 --pc\_light\_on\_road  into #temp\_sl\_1  from #temp\_located\_pole, #temp\_all\_pole;  drop table #temp\_min\_max, #temp\_located\_pole;  --------------------------------------------------------------------------------  --Streetlights records have a light  --Percentage of streetlight pole records with at least one light record.  --Where road\_type = "L"  --Ref - AM-SL2  --------------------------------------------------------------------------------  --No poles with brackets with light  select count(distinct p.pole\_id) as pole\_with\_light  into #temp\_pole\_with\_light  from sl\_pole p  join sl\_bracket b  on p.pole\_id = b.pole\_id  join sl\_light l  on b.bracket\_id = l.bracket\_id  where p.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and p.replace\_date is null  and b.replace\_date is null  and b.bracket\_id is not null  and l.light\_replace\_date is null  and l.light\_id is not null;  select (cast(pole\_with\_light as decimal)/cast(all\_pole as decimal))\*100 as AM\_SL2 --pc\_sl\_pole\_with\_light  into #temp\_sl\_2  from #temp\_pole\_with\_light, #temp\_all\_pole;  drop table #temp\_pole\_with\_light;  --------------------------------------------------------------------------------  --Streetlight replacement activtiy  --Percentage of streetlight poles replaced during the last three financial years.  --Where road type = "L"  --Ref - AM-SL3  --------------------------------------------------------------------------------  select count(pole\_id) replace\_pole  into #temp\_replaced\_sl\_poles  from sl\_pole p  where p.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and replace\_date between ((select targetDate from #tempDate) - 1095) and (select targetDate from #tempDate);    select (cast(replace\_pole as decimal)/cast(all\_pole as decimal))\*100 as AM\_SL3 --pc\_pole\_replaced  into #temp\_sl\_3  from #temp\_replaced\_sl\_poles, #temp\_all\_pole;  drop table #temp\_replaced\_sl\_poles, #temp\_all\_pole;  -- =============================================================================  --\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*MAINTENANCE ACTIVITY\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- =============================================================================  --------------------------------------------------------------------------------  --Consistency of maintenance activity units  --Average number of different units used per activity for reported financial year.  --For pavement, surfacing, shoulder and drainage cost groups only.  --Ref - AM-MA1  --------------------------------------------------------------------------------  select activity, count(distinct qty\_unit) as mc\_units  into #temp\_mc\_units  from mc\_cost  where cost\_group in ('PA', 'SU', 'SH', 'DR')  and transaction\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate)  group by activity;  select avg(cast(mc\_units as decimal)) as AM\_MA1 --ave\_number\_units  into #temp\_mcost\_1  from #temp\_mc\_units;  drop table #temp\_mc\_units;  --------------------------------------------------------------------------------  --Maintenance activity known  --Percentage of records with a known fault type in reported financial year (ie not "unknown")  --For pavement, surfacing, shoulder and drainage cost groups only.  --Where road type = "L"  --Ref - AM-MA2  --------------------------------------------------------------------------------  select count(transaction\_id) as known\_fault  into #temp\_known\_fault  from mc\_cost mc  where mc.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and cost\_group in ('PA', 'SU', 'SH', 'DR')  and transaction\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate)  and fault <> 'UNKNOWN'  and fault is not null;  select count(transaction\_id) as tot\_records  into #temp\_tot\_records  from mc\_cost mc  where mc.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and cost\_group in ('PA', 'SU', 'SH', 'DR')  and transaction\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate);  select (cast(known\_fault as decimal))/(cast(tot\_records as decimal)) \*100 as AM\_MA2 --pc\_known\_fault  into #temp\_mcost\_2  from #temp\_known\_fault, #temp\_tot\_records;  drop table #temp\_known\_fault;  --------------------------------------------------------------------------------  --Correctly located maintenance activity  --Percentage of records recorded at appropriate location for all cost groups (percentage of records not at the start of the carriageway) for reported financial year.  --Where road\_type = "L"  --Ref - AM-MA3  --------------------------------------------------------------------------------  --Select all records  select count(transaction\_id) as total\_records  into #temp\_total\_records  from carr\_way  join mc\_cost on (carr\_way.road\_id = mc\_cost.road\_id)  where (start\_m >= carr\_way.carrway\_start\_m  and start\_m < carr\_way.carrway\_end\_m)  and cost\_group in ('SH', 'DR')  and carr\_way.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and transaction\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate);  --Select records at not at road start  select count(transaction\_id) as records\_not\_start  into #temp\_records\_not\_start  from carr\_way  join mc\_cost on (carr\_way.road\_id = mc\_cost.road\_id)  where (start\_m >= carr\_way.carrway\_start\_m  and start\_m < carr\_way.carrway\_end\_m)  and cost\_group in ('SH', 'DR')  and carr\_way.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and start\_m > (select min(carrway\_start\_m) from carr\_way where carr\_way.road\_id = mc\_cost.road\_id)  and transaction\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate);  --Express as % of records not at road start  select (cast(records\_not\_start as decimal))/(cast(total\_records as decimal)) \*100 as AM\_MA3 --pc\_not\_at\_start  into #temp\_mcost\_3  from #temp\_records\_not\_start, #temp\_total\_records;  drop table #temp\_records\_not\_start, #temp\_total\_records;  --------------------------------------------------------------------------------  --Level of maintenance activity known  --Percentage of records with a known quantity (eg not null or zero or -ve) for reported financial year.  --For pavement, surfacing, shoulder and drainage cost groups only  --Ref - AM-MA4  --------------------------------------------------------------------------------  select count(transaction\_id) as known\_qty  into #temp\_known\_qty  from mc\_cost mc  where mc.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and cost\_group in ('PA', 'SU', 'SH', 'DR')  and (quantity > 0 or adj\_quantity >0)  and transaction\_date between ((select targetDate from #tempDate) - 364) and (select targetDate from #tempDate);  select (cast(known\_qty as decimal))/(cast(tot\_records as decimal)) \*100 as AM\_MA4 --pc\_known\_qty  into #temp\_mcost\_4  from #temp\_known\_qty, #temp\_tot\_records;  drop table #temp\_known\_qty, #temp\_tot\_records;  -- =============================================================================  --\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*CONDITION\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- =============================================================================  --------------------------------------------------------------------------------  --Rating data current  --Percentage of rating data records less than 2 years old at end of reported financial year  --Where road type = "L" and latest = "L".  --Ref - AM-Co1  --------------------------------------------------------------------------------  --Select total sealed network length  select sum(t.tl\_length\_m) as total\_lgth  into #temp\_total\_lgth  from treatment\_length t  where t.pavement\_type in ('T', 'S', 'C')  and t.tl\_disabled = 'N'  and t.road\_id in (select road\_id from roadnames  where road\_type = 'L');    --Select sealed network length with rating reading less than 2 years old  select sum(r.end\_m - r.start\_m) as m\_rating  into #temp\_m\_temp\_rating  from rating r  left join treatment\_length t  on r.road\_id = t.road\_id  and r.start\_m >= t.tl\_start\_m  and r.start\_m < t.tl\_end\_m  where t.pavement\_type in ('T', 'S', 'C')  and t.tl\_disabled = 'N'  and t.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and rating\_date >= ((select targetDate from #tempDate) - 729)  and latest = 'L';  update #temp\_m\_temp\_rating  set m\_rating = 0  where m\_rating is null;  --Express as % network length with recent(2 years) rating reading  select (cast(m\_rating as decimal)) / (cast(total\_lgth as decimal)) \* 100 as AM\_Co1 --pc\_rating\_recent  into #temp\_cond\_1  from #temp\_m\_temp\_rating, #temp\_total\_lgth;  drop table #temp\_m\_temp\_rating, #temp\_total\_lgth;  --------------------------------------------------------------------------------  --Latest rating data locations valid  --Percentage of latest rating records with a valid inspection section  --(inspection start >= rating start and start of road, inspection end <= rating end and end of road)  --Ref - AM-Co2  --------------------------------------------------------------------------------  --Find the minimum start and maximum end for each road in carr\_way  select road\_id, min(carrway\_start\_m) min\_start, max(carrway\_end\_m) max\_end  into #tmp\_min\_max  from carr\_way  where carr\_way.road\_id in (select road\_id from roadnames  where road\_type = 'L')  and carr\_way.owner\_type = 'L'  group by carr\_way.road\_id;  select count(\*) as valid\_rating  into #temp\_rating\_valid  from rating r  join #tmp\_min\_max tm on (r.road\_id = tm.road\_id and (r.insp\_start\_m >= tm.min\_start  and r.insp\_end\_m <= tm.max\_end))  where r.latest = 'L'  and rating\_date between ((select targetDate from #tempDate) - 729) and (select targetDate from #tempDate)  and (r.insp\_start\_m >= r.start\_m and r.insp\_start\_m < r.end\_m)  and (r.insp\_end\_m > r.start\_m and r.insp\_end\_m <= r.end\_m)  --and t.pavement\_type in ('T', 'S', 'C')  and r.road\_id in (select road\_id from roadnames  where road\_type = 'L');  select count(\*) as tls\_rating  into #temp\_rating\_tot  from rating r  where r.latest = 'L'  and rating\_date between ((select targetDate from #tempDate) - 729) and (select targetDate from #tempDate)  --and t.pavement\_type in ('T', 'S', 'C')  and r.road\_id in (select road\_id from roadnames  where road\_type = 'L');    drop table #tmp\_min\_max;  select (cast(valid\_rating as decimal)) / (cast(tls\_rating as decimal)) \*100 as AM\_Co2 --pc\_rating\_location\_valid  into #temp\_cond\_2  from #temp\_rating\_valid, #temp\_rating\_tot;  drop table #temp\_rating\_valid, #temp\_rating\_tot;  -- =============================================================================  --\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*RESULTS\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- =============================================================================  --Publish results  select \*  from #temp\_cway\_1, #temp\_cway\_2, #temp\_cway\_3,  #temp\_treat\_1,  #temp\_surf\_1a, #temp\_surf\_1b, #temp\_surf\_2,  #temp\_pave\_1, #temp\_pave\_2, #temp\_pave\_3,  #temp\_fpath\_1, #temp\_fpath\_2,  #temp\_drain\_1, #temp\_drain\_2,  #temp\_swc\_1, #temp\_swc\_2,  #temp\_signs\_1, #temp\_signs\_2, #temp\_signs\_3,  #temp\_rail\_1, #temp\_rail\_2,  #temp\_rwall\_1, #temp\_rwall\_2,  #temp\_sl\_1, #temp\_sl\_2, #temp\_sl\_3,  #temp\_mcost\_1, #temp\_mcost\_2, #temp\_mcost\_3, #temp\_mcost\_4,  #temp\_cond\_1, #temp\_cond\_2;  drop table  #temp\_cway\_1, #temp\_cway\_2, #temp\_cway\_3,  #temp\_treat\_1,  #temp\_surf\_1a, #temp\_surf\_1b, #temp\_surf\_2,  #temp\_pave\_1, #temp\_pave\_2, #temp\_pave\_3,  #temp\_fpath\_1, #temp\_fpath\_2,  #temp\_drain\_1, #temp\_drain\_2,  #temp\_swc\_1, #temp\_swc\_2,  #temp\_signs\_1, #temp\_signs\_2, #temp\_signs\_3,  #temp\_rail\_1, #temp\_rail\_2,  #temp\_rwall\_1, #temp\_rwall\_2,  #temp\_sl\_1, #temp\_sl\_2, #temp\_sl\_3,  #temp\_mcost\_1, #temp\_mcost\_2, #temp\_mcost\_3, #temp\_mcost\_4,  #temp\_cond\_1, #temp\_cond\_2;  drop table #tempDate; |