RIMS
Roading Infrastructure Management Support

in association IDS Infrastructure Decision Support

Inspection Frequency, Have you got it right?

Willy Silcock

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Engineering Solutions

Introduction

- Background
- Catchpit inspections
- What the data tells us
- Where to next?

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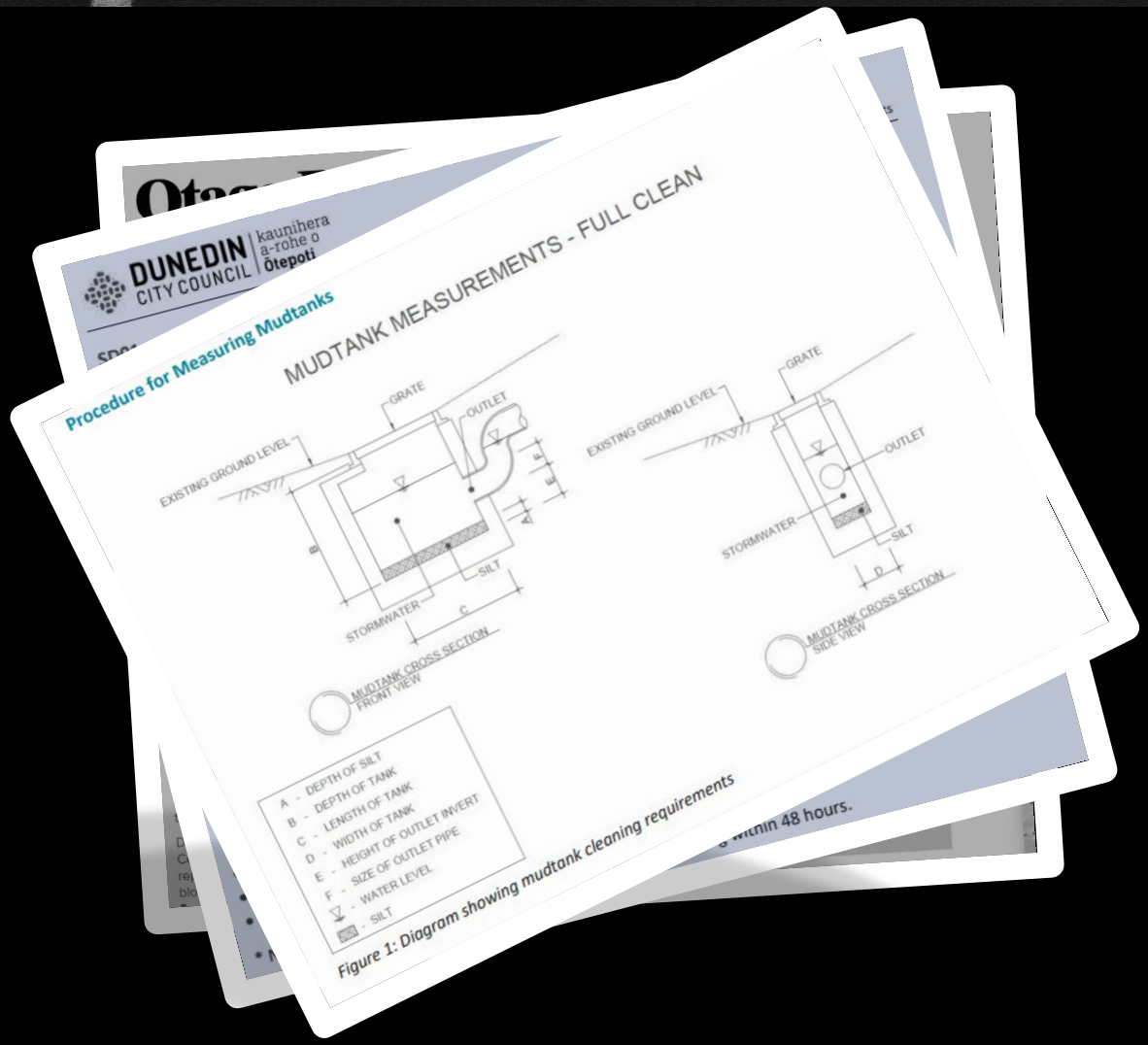
Background

- Failings of the past
- Level of service
- Inspection methodology
- How to manage this?



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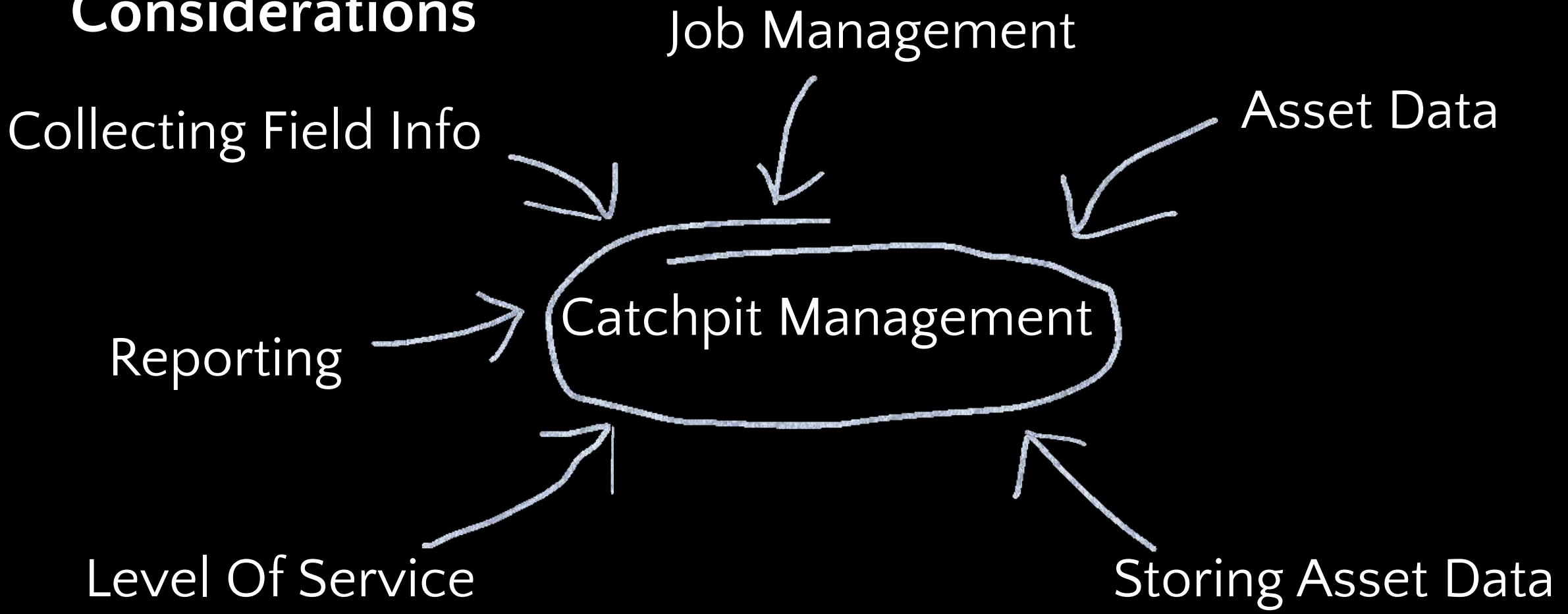
Considerations



Inspection Frequency - Have we got it right?

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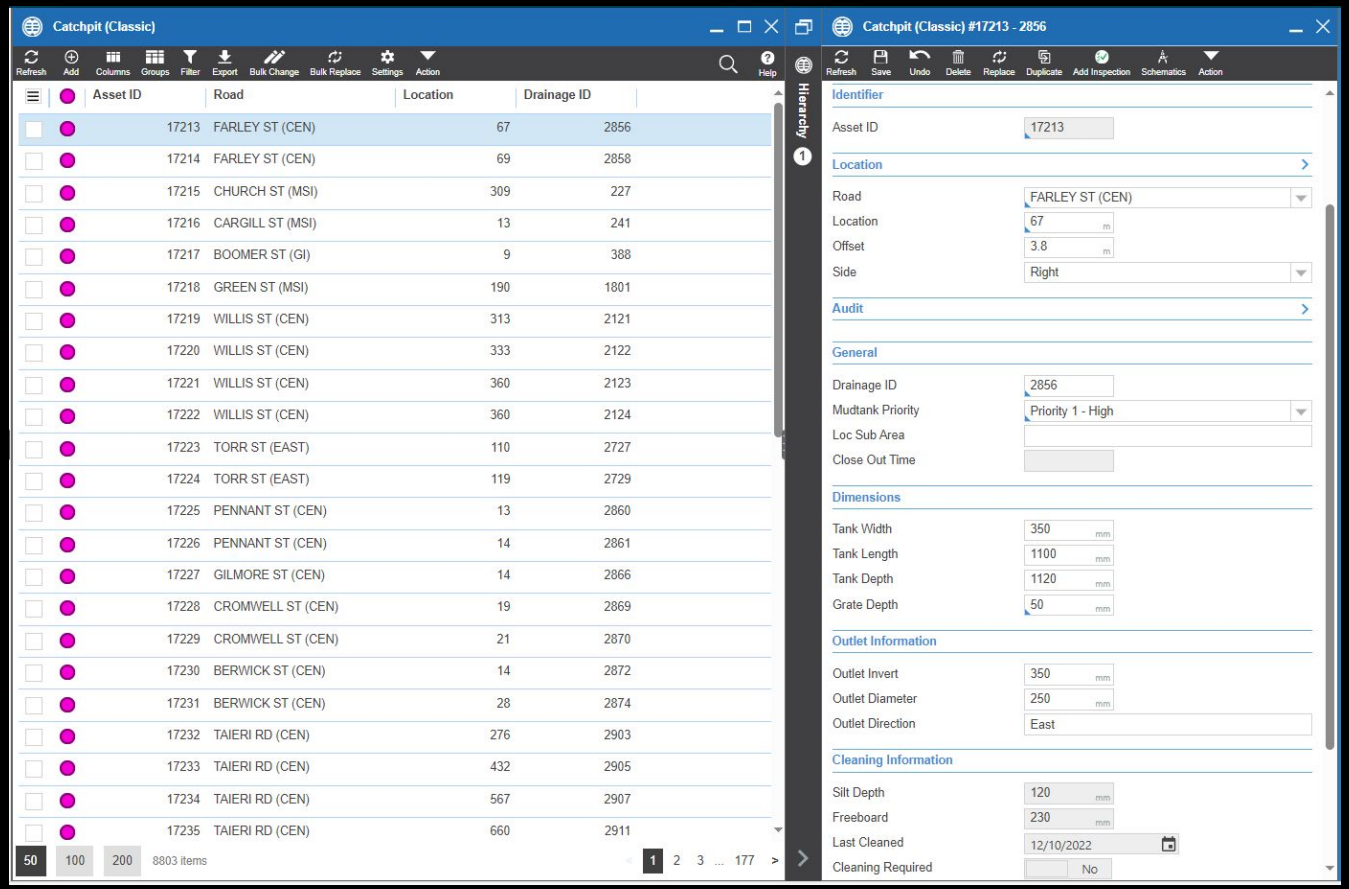
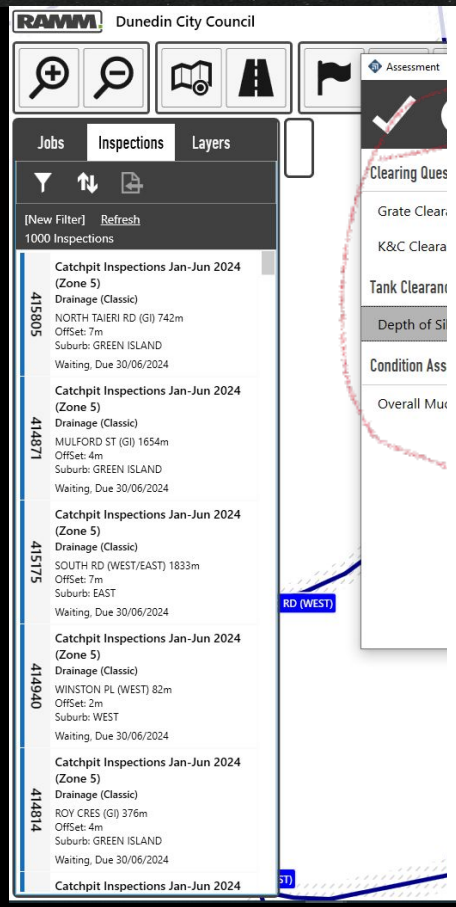


Asset Data | Field Collection | Data Queries | Reporting

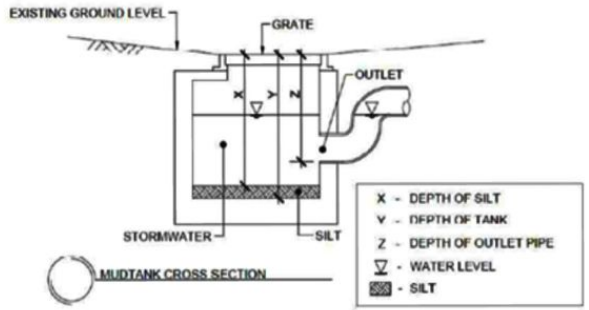
Inspection Frequency - Have we got it right?



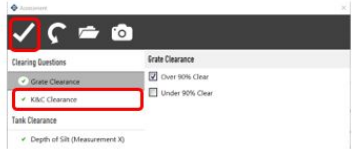
Inspection Process – DCC Mudtanks

This should be used in conjunction with the Fulton Hogan Guide on Inspections in the field. This is to highlight extra steps in the process specific to the Mudtank inspection required for the Dunedin City Council

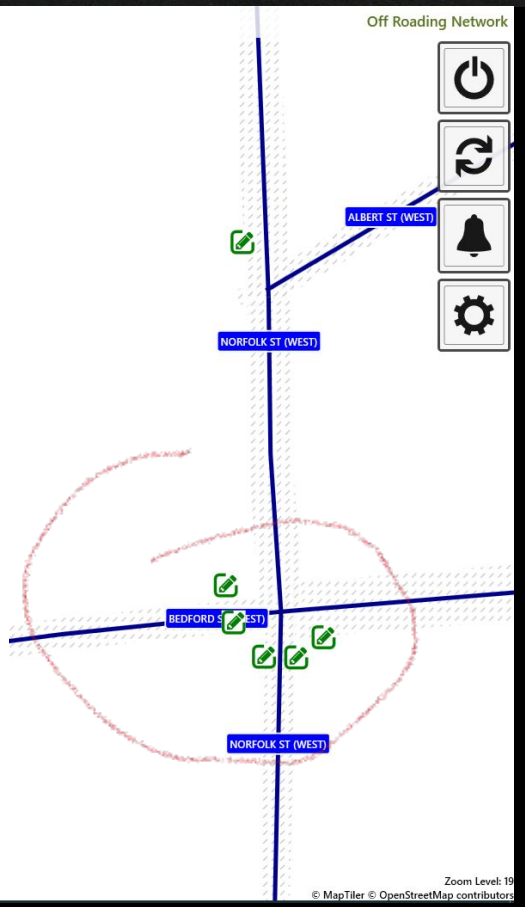
1. Identify the correct inspection record Pocket RAMM and open the inspection.
2. Start an assessment by selecting the button below



3. Check grate is 90% clear of debris and record pass or fail in the assessment
4. Check Kerb and Channel is 90% clear for 5m either side of tank grate and record pass or fail in the assessment.
5. Using measuring device establish measurements "X" and record in the assessment. For double grates dip the grate closest to outlet pipe
6. Select condition in the assessment question from Excellent to Very Poor **This will update the asset details for you so step 10 can be skipped!!!!!**
7. Once all questions are answered (seen onscreen by the tick beside the question). Complete the Assessment by Clicking on the tick in the top left corner of the window.



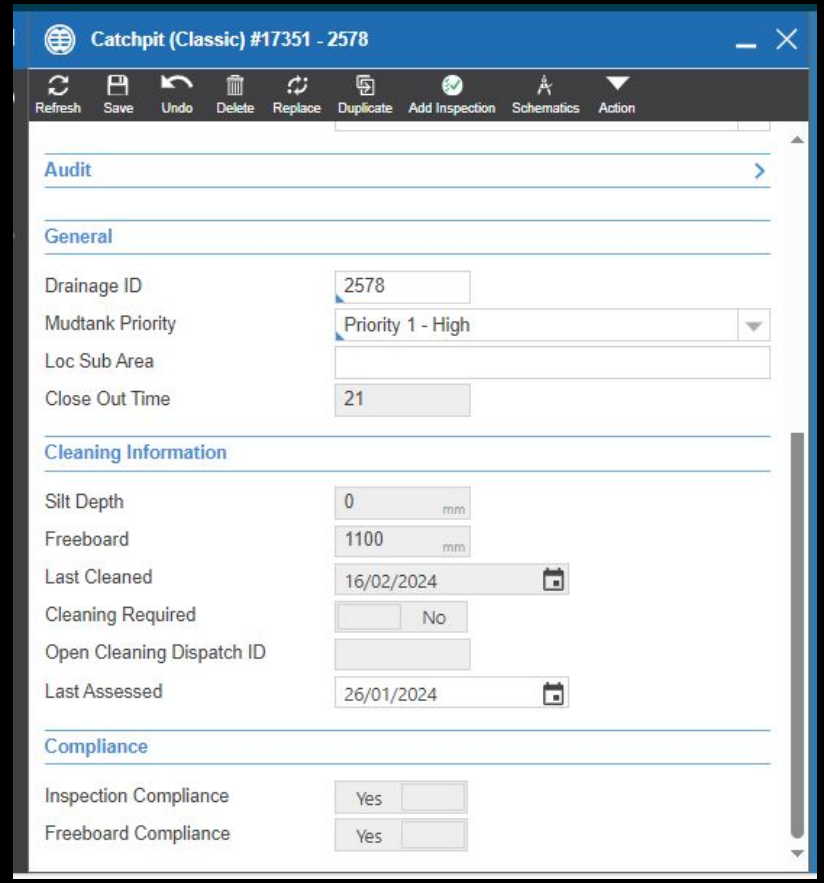
8. Pass the inspection by clicking on the pass button. Only fail the dispatch if you cannot find an asset at this location.



Asset Data | Field Collection | Data Queries | Reporting

Inspection Frequency - Have we got it right?

```sql
--IF STATEMENTS DROPPING ALL TABLE NAMES THAT ARE TO BE USED IN THIS CODE
IF object_id('tempdb.dbo.#assessment_calculations', 'U') IS NOT NULL
  DROP TABLE #assessment_calculations;

IF object_id('tempdb.dbo.#Most_Recent_Asset_Assessment', 'U') IS NOT NULL
  DROP TABLE #Most_Recent_Asset_Assessment;

IF object_id('tempdb.dbo.#Most_Recent_Clean', 'U') IS NOT NULL
  DROP TABLE #Most_Recent_Clean;

IF object_id('tempdb.dbo.#Most_Recent_Clean_dispatch', 'U') IS NOT NULL
  DROP TABLE #Most_Recent_Clean_dispatch;

--CREATING A DUMMY TABLE WITH THE MOST RECENT CLEANING DISPATCH_ID FOR EACH DRAINAGE_ID RECORD
CREATE TABLE #Most_Recent_Clean_dispatch (asset_id INT,most_recent_clean_dispatch INT);

INSERT INTO #Most_Recent_Clean_dispatch
SELECT d.system_id,max(d.dispatch_id)
FROM mt_dispatch d
WHERE d.asset_type = 5
  AND fault = 'DCC' --Note this needs to be the specific fault code for cleaning mudtanks
  AND call_complete_actual IS NULL
  AND d.system_id IN (SELECT m.drainage_id
                      FROM ud_mudtank m)
GROUP BY d.system_id;

--CREATING A DUMMY TABLE WITH DATE THE MOST RECENT ASSESSMENT COMPLETED DATE FOR EACH DRAINAGE_ID RECORD
CREATE TABLE #Most_Recent_Asset_Assessment(asset_id INT,most_recent_assessment DATE,assessment_id INT);

INSERT INTO #Most_Recent_Asset_Assessment
SELECT a.asset_id, MAX(a.added_on),MAX(a.assessment_id)
FROM as_assessment_dtl a
WHERE a.assessment_id IN(SELECT x.assessment_id
                         FROM as_assessment x
                         WHERE x.asset_type = 4) --This needs to be changed to the "Assessment Asset type"
AND a.assess_item = 290 --This needs to be changed to the "Question" for silt depth (assess_item) ID from
GROUP BY a.asset_id;

--CREATING A DUMMY TABLE WITH THE MOS RECENT CLEANING DATE FOR EACH DRAINAGE_ID
CREATE TABLE #Most_Recent_Clean(asset_id INT,most_recent_clean DATE);
```



Asset Data → Field Collection → Data Queries → Reporting

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What we learned from the data?

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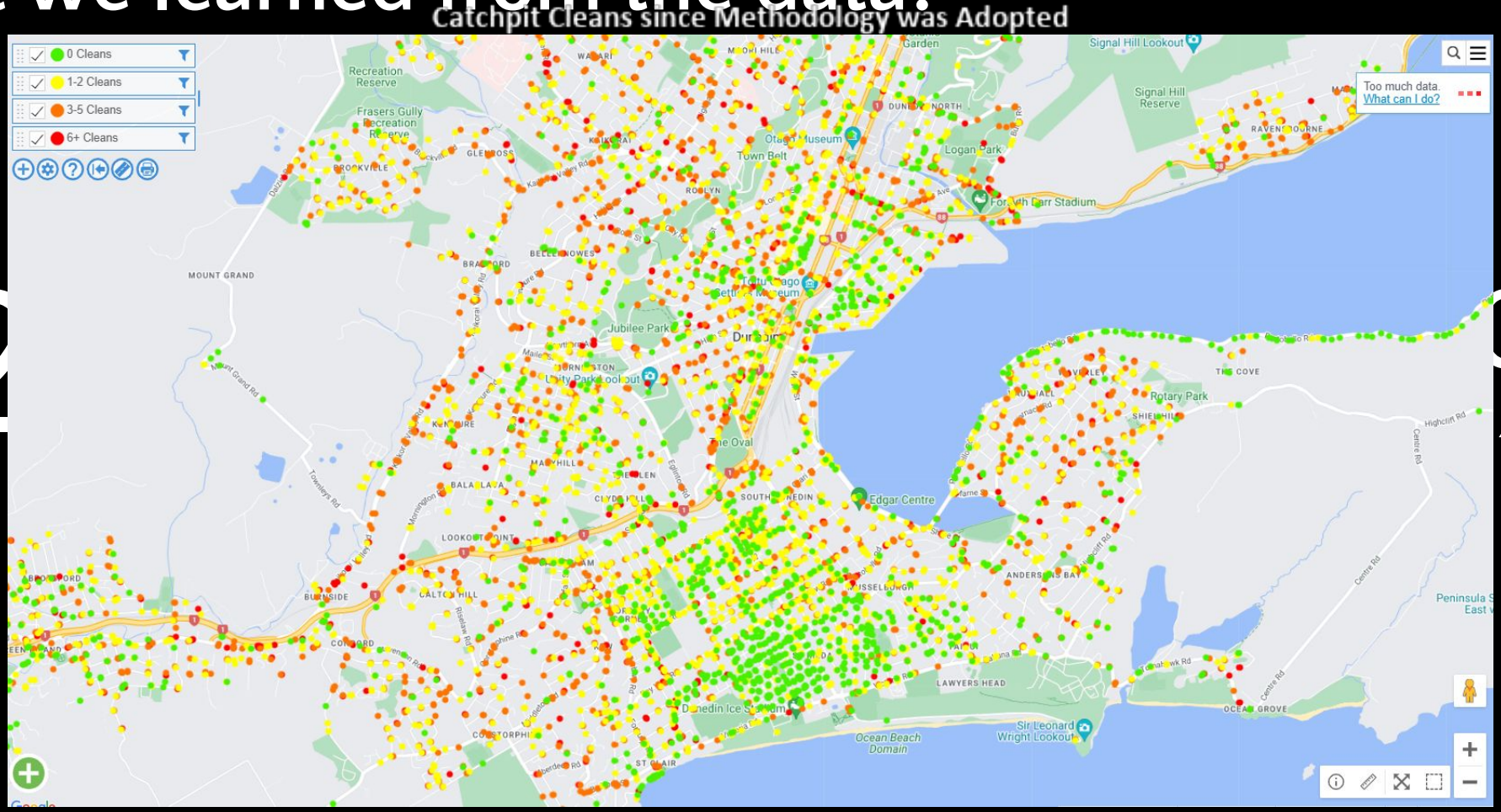

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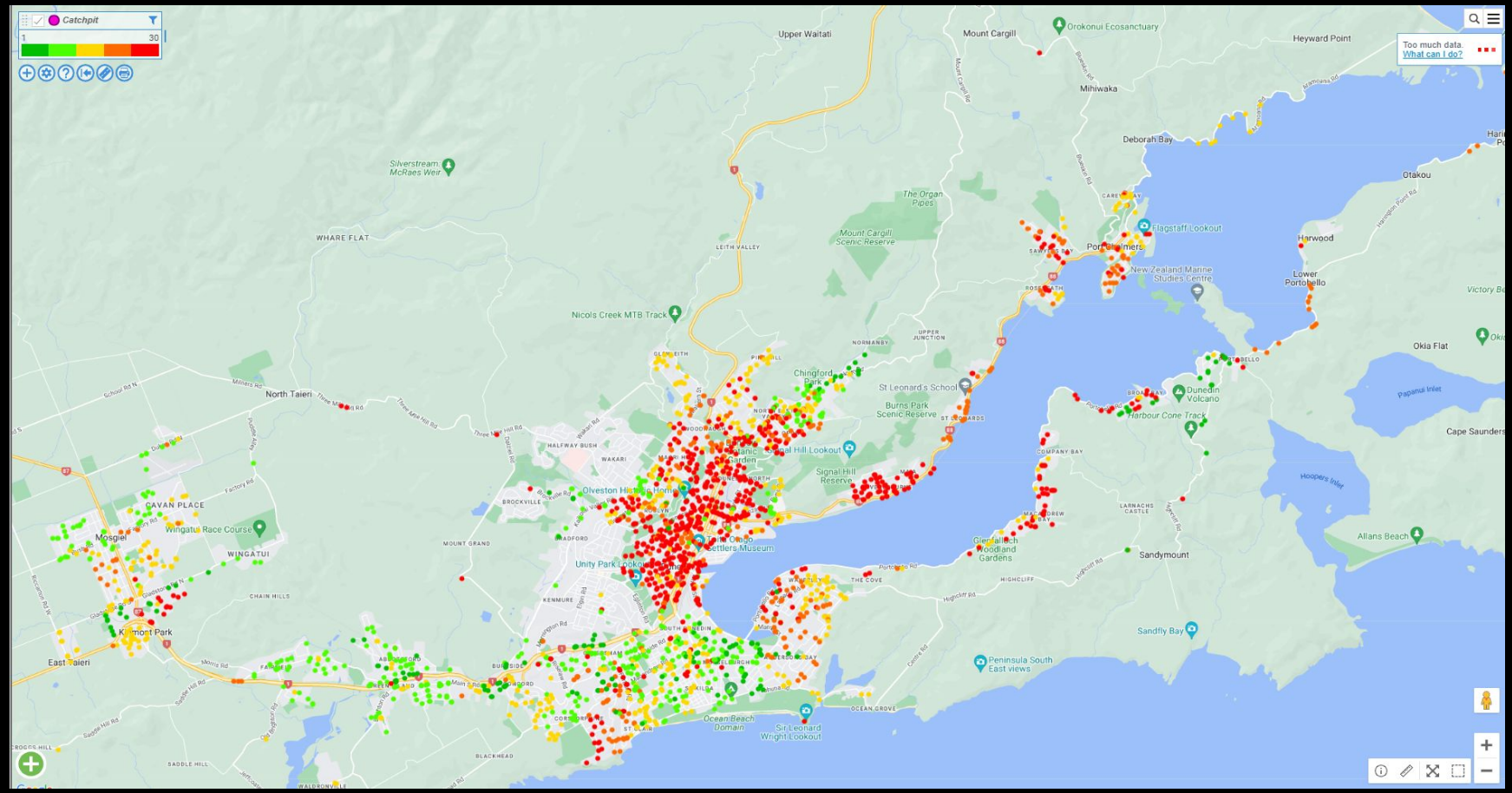
What we learned from the data?



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How could we further optimise?

- Inspections vs. Work
- Risk based assessment frequency
- Combination of Cycles/Inspections
- AMDS → Data Structure
- I.O.T.

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Thank you

DUNEDIN CITY COUNCIL | kaunihera a-rohe o Ōtepoti

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