



Litter Intelligence Data Governance Group (DGG) Stormwater Methodology Review Meeting

Minutes Data Governance Group (DGG) Meeting 21 November 2022

DATE: Monday, 21 November 2022

TIME: 1.00 - 2:30 pm

Attending: Ben Knight (Interim Chair - SC), David Harris (StatsNZ), Jonathon Hannon (PPC/Massey University), Bella Herbison (Secretary, Non-Voting - SC), Carla Fonseca Paris (Non-Voting - SC), Amanda Valois (GWRC).

Apologies: Christine White (KNZB), Richard Leckinger (BATK), Jordi Tablada (DoC), Josh Borthwick (SC), Shawn Elise Tierney (SC).

ACTIONS FROM THIS MEETING (21 November 2022)

ACTION	Owner	Status
2022 ToRs pending signatures signed by all DGG members.	Bella	Richard Leckinger (BATK) signature is pending. Carla has reminded Richard via email and phone call
2023 ToRs drafted for 2023 before the next meeting and circulated to all members to sign.	Bella	
All DGG members provide nominations for the chair role via email to bellah@sustainablecoastlines.org A poll will be circulated for voting before the next meeting.	Bella	Ben acting as interim chair until nominations and new chair elected
StatsNZ to deliver a workshop/meeting with SC on data use and data quality. David and Ben will meet beforehand to discuss how this will be delivered.	David/Ben	
SC to discuss how to incorporate back of the beach recommendations into training/tech.	Ben	
Investigate the cost for changing the wording from 'freshwater' to 'streams' across the LI platform	Ben	
Send categories to Rick to share proportional numbers for categories that can't be merged between KNZB and LI. This data will be then shared with David for STATS NZ to look at next steps.	Carla	
Amanda/David/Ben/Carla to meet to discuss QA/QC next steps and data analysis.	Amanda/David/ Ben/Carla	



Litter Intelligence Data Governance Group (DGG) Stormwater Methodology Review Meeting

Meeting starts: 1:03pm

1. Update on changes within the Data Governance Group (Ben)

- Ben will be interim chair in replacement of Camden who recently resigned from Sustainable Coastlines
- As discussed in the last meeting, Bella has taken over Carla's role as Secretary
- Jordi Tablada will replace Harry Allard as the DoC representative. Jordi is the Marine Science Advisor who has a spatial analysis background. He sent his apologies as he couldn't join the meeting today

Discussion:

Ben

- Camden has resigned from Sustainable Coastlines
- Acknowledgment and thanks for all time and dedication Camden has put into the Litter Intelligence programme and Sustainable Coastlines, developing and growing the organization to the success and depth of engagement with the community that it is at today.
- In his absence (Ben) is acting as interim chair. Nominations to elect a new chair and voting will be done in the new year via email before the next meeting (as explained further below).

Programme updates of group members:

- Amanda (GWRC) - no updates
- David - no updates
- Jonathon - Shared his work on plastic product stewardship. Three fourths of funding comes from public money which is the main current critique - met with Eugenie Sage to get the government to reset that balance (true environmental cost of plastic)

2. Review actions from the last meeting

Previous actions from last DGG meeting (26 April 2022)

ACTION	Owner	Status
TORs will be shared again via email for any comments. Please make comments in the document or email to Carla.	Carla/ Bella	Completed link here
If no comments/changes are received, final ToRs will be circulated for all members to sign.	Carla/Bella	Pending signatures of Richard Leckinger, Amanda Valois
All DGG members provide nominations for the chair role via email to carla@sustainablecoastlines.org . Nominations open until Monday 16 May, after which we will circulate a poll for voting.	All	Ben to be interim chair
Add a snapshot of the results / progress to the next agenda.	Carla/Bella	Completed



Litter Intelligence Data Governance Group (DGG) Stormwater Methodology Review Meeting

ACTION	Owner	Status
StatsNZ to deliver a workshop/meeting with SC on data use and data quality	David/Ben	In progress
SC to discuss how to incorporate back of the beach recommendations into training/tech.	Ben	In progress
Coordinate with citizen scientists to run pilot 'lake beach' surveys, and circulate links to data and any learnings to DGG.	Ben	Completed Link here
Jonathon to share freshwater training materials with DGG	Jonathon	Completed Link Here
Investigate the cost for changing 'freshwater' to 'streams' across the LI platform	Ben	In progress
Send categories to Rick to share proportional numbers for categories that can't be merged between KNZB and LI. This data will be then shared with David for STATS NZ to look at next steps.	Ben	Not completed
Update litter categories and keywords on the paper data sheets, website and technology as per decisions made.	Carla/Bella	Completed link here

Discussion:

ACTION: Carla will share again the TORs with Amanda to sign and a new document will be drafted by Bella in the new year

ACTION: Ben to meet with David regarding "StatsNZ to deliver a workshop/meeting on data use and data quality"

ACTION: "SC to discuss how to incorporate back of the beach recommendations into training/tech" will be moved to the next meeting to be discussed

Ben

Lake Te Anau is the first [pilot survey](#) for a lake survey, using beach litter methodology. It has been successfully completed. This will be further discussed under the Monitoring section of this agenda

3. Review / Approve Minutes from Last Meetings:

[Minutes Y4M2 Agenda - Data Governance Group \(DGG\) Meeting 26 April 2022](#)

Approved: David Harris
Seconded: Amanda Valois

4. Governance:

- a. **Updated Terms of Reference Year 4 (TORs):** Missing signatures from Amanda Valois and Richard Leckinger - [link to document here](#)
- b. **Nominations and Voting for Chair role.**



Litter Intelligence Data Governance Group (DGG) Stormwater Methodology Review Meeting

- 1. Nominations. Any voting member can make a nomination, including self-nominations. Nominations do not require a second.
- 2. Voting. To be conducted following nominations, either during this meeting or via email following. **To be discussed.** Notes on voting:
 1. Election of the Chair requires a majority of those voting. If a majority is not reached, the incumbent Chair may remain in place or call for an additional election.
 2. If only one member is nominated, the nominee will still need to receive a majority of votes cast to be elected. If no majority is reached, the incumbent Chair continues to serve until the next annual review of the DGG.
 3. If two or more members are nominated for Chair, the member receiving a majority of the votes cast is elected. If there is a tie or no one receives a majority of votes cast, a second vote must be taken. Additional votes must be taken as necessary to elect one candidate. If no candidate is elected, the incumbent Chair continues to serve until the next annual review of the DGG.

Discussion:

Ben

Voting for the new permanent chair to replace Cam will be completed before the next meeting.

Membership:

- c. **Department of Conservation:** Harry Allard left DOC and now Jordi Tablada will be joining the DGG meetings from next meeting onward.

Quality Assurance and Quality Controls

- d. Continuing to collect QC data (update from Ben)

Discussion:

- 12 QA QC conducted.
- Survey verifications for official and ad hoc surveys ongoing with over 95% of surveys verified - the Litter Intelligence team are doing a good job to keep up with the volume of surveys being submitted.

David

Is the QA QC process documented?

Ben

Yes, The documentation is available in the Litter Intelligence page here:

<https://litterintelligence.org/about/beach-monitoring/> **under data quality**

The link to the document can be also accessed directly in the following link:

<https://litterintelligence.org/media/2rcpn5di/li-quality-assurance-quality-control-v1-0.pdf>

Ben

For survey verifications we are seeking to develop an automated verification email the lead citizen



Litter Intelligence Data Governance Group (DGG) Stormwater Methodology Review Meeting

scientist can complete along with the survey confirmation email - looking to the future we will need to look at cost of development. The process will be approved through the DGG.

Amanda

Are the QC metrics/results reported annually?

Ben

They currently are not, but we can add this as an agenda item in the new year. There hasn't been any targeted resource for analysing the raw data we have found as it has not been a priority. We have the numbers calculated so will look to make this a prioritised goal for next year.

Amanda

There is lots of overlap with litter data errors, this should be further discussed to work out the most effective way of analysing and finding these results

ACTION - Amanda, David, Ben and Carla come discuss next year for next steps within the QC work

Ben

As per QA/QC approved guidelines

(<https://litterintelligence.org/media/2rcpn5di/li-quality-assurance-quality-control-v1-0.pdf>), error rate (in count, weight) are calculated both for surveys and audits at material class level, however we also have the detail at the category level. Quality control of categorisation decisions has not been implemented yet.

Beach Monitoring

- e. Update on the beach monitoring programme.

Ben's presentation can be found here:

<https://docs.google.com/presentation/d/139d8S3demoofr0ZJJ63DU02RezKU7Wov/mobilepresent?slide=id.p1>

Discussion:

Ben

Many regions across Aotearoa have Litter Intelligence sites that are being monitored, however there are still some gaps in the coast coverage in North Island at the bottom of the east coast and the Bay of Plenty east coast, and in the South Island in the west coast. To achieve this the programme will require more resources (human as well as funding).

The programme has a large number of sites and varied volunteer groups in more than 300 sites, however the frequency of repeat surveys has been low.

Stormwater Monitoring (Carla)

- f. LI secured funding from Auckland Council Healthy Waters to develop the training materials for the stormwater methodology. This information is available in the LI online learning platform (LMS). However, the implementation of the training programme has not yet been funded, this is required for the programme to train leads



Litter Intelligence Data Governance Group (DGG) Stormwater Methodology Review Meeting

- and support the collection of stormwater.
- g. Currently Adhoc surveys are being entered:
Total stormwater survey areas: 93, total surveys completed: 186 by the following groups NRC in Northland, Tread Lightly in Auckland, Enviropod LittaTrap International in Waiheke, and Rick Field in Tasman-Nelson - Data ranges from 2019 to date.
 - h. Once funding is available and leads complete the training, we expect to see official results being submitted.

Discussion:

Carla

Litter intelligence has developed a trail through a learning management system (LMS) to teach the stormwater methodology for volunteers to become trained stormwater citizen scientists. Following the methodology training support in person must be provided. Although the training material has been completed, funding is still required to provide support in person. When funding is secured the full training will be made available to volunteers.

All stormwater survey areas are currently being entered as Adhoc, if they are not verified by a Litter Intelligence team member (as per data quality processes) then they are NOT publicly displayed on the Litter Intelligence website.

Ben

Official data can only be entered by lead citizen scientist who have completed both methodology training and in the field training on their first survey/audit, Litter Intelligence needs to get funding to run workshops wherever there is demand (councils) - currently there are no resources to deliver it

Freshwater (Stream) Monitoring

- i. Sustainable Coastlines does not currently have funding to develop official training resources or deliver/support an ongoing training programme.

Discussion:

Ben

We don't have the resources to develop a stream water monitoring programme, but there is a huge demand. We can look into it next year and discuss how we want to engage with the community in this space and the outcomes we want.

- j. Ben to provide a quick update on the lake beach survey pilot on Lake Te Anau. Access the 2 surveys completed here - [18 May 2022](#) & [15 September 2022](#)
- k. As per discussion from last meeting - here is the Freshwater training manual from Jonathon [Freshwater video and resources - Jonathon DGG](#)

Terrestrial Monitoring

- l. Update from Christine White (KNZB). - Apologies as Christine could not attend the meeting

Ben



Litter Intelligence Data Governance Group (DGG) Stormwater Methodology Review Meeting

KNZB are in the process of wrapping up their national litter audit - Christine will give an update in the new year meeting when she is present.

Category & Keyword Review

- m. New approved keywords (from last meeting) have been entered into the Litter Intelligence app.

Discussion:

Ben

New litter categories and keywords agreed upon after our last meeting have been updated on all resources. New proposed keywords will be revised again in the new year.

- n. **Want to request any changes? Refer to this document** and add in your comments in the column with your organisation name before the meeting. Make sure you're on the first tab, aptly named "Feedback on this tab"

Platform/Technology Updates

- o. Bella to provide an update on Litter Intelligence tech developments:
 - Keyword and category search function improved

Discussion:

Bella

Users were unable to search for words within the Litter Intelligence web app using the search function when inputting audit data if they included a space or dot after the word. This problem was resolved making it easier for citizen scientists to find categories.

Ben

Technology improvements are a part of the programme quality assurance process.

- Turned off the AI feature for web-app users

Discussion:

Bella

The AI feature to take photos has been turned off, this feature was used to train AI to recognise litter categories, counts and weights automatically. However, it makes the audit process longer and some photos have been captured incorrectly interfering with the AI recognition. Therefore, this feature is currently hidden from users, but it can be switched on in the future if required.

Ben

The AI feature was making audits lengthy for the LI web-app users. AI feature was good at identifying simple items like cigarettes and bottle tops, but not items with different shapes and forms which is the majority of coastal litter collect.

- Improved the admin panel to be more user friendly for the Litter Intelligence team - allocated regions to the delivery staff



Litter Intelligence Data Governance Group (DGG) Stormwater Methodology Review Meeting

Discussion:

Bella

Instead of all survey data being accessible for the whole Litter Intelligence team, each team member now has access to view and edit the regions allocated to them. All data access (all regions) is granted where necessary (to managers for example). Making these changes to the admin panel makes it more user friendly for the team and facilitates data verifications.

- Duplicate bug fix being implemented

Discussion:

Bella

Enlighten (IT team) have been investigating a duplicate app issue, where 1 or more copies are made sometimes when a survey is submitted through the app. Although some solutions have been found and being implemented, it continues to duplicate some surveys because this is a multifaceted problem that requires more investigation and the team continues to investigate to fix.

General Business:

- p. **All DGG members. Please add any agenda items here.**

Discussion about the opportunities and results that could create change in the plastic pollution space:

Jonathon

What role can the DGG play in understanding plastic pollution across NZ? Is there any place or association looking at what we want for the future/ next 10 years?

Ben

I think it is something being talked about with groups like Aotearoa plastic pollution alliance (APPA). Ideally there are national standards for plastic pollution similar to the national freshwater standards.

The DGG is not the right context for building this new advocacy machine as its role is to ensure the way litter data is collected is scientifically robust and trustworthy, part of which stems from the DGG's neutrality/impartiality.

David

Agree with Ben re the DGG's impartiality. There are big gaps in our environmental monitoring data which is a big challenge for Aotearoa. The Litter Intelligence programme has produced data that is trustworthy and can help in the understanding of plastic pollution for Aotearoa can be used for evidence based solutions for all stakeholders and users.

Ben

Acknowledgement and thanks for all DGG members continued support throughout the year.

Meeting ends: 2:14pm