



SUMMATIVE EVALUATION REPORT - Fire Prevention Program Tiers 1 and 2

Extract – for Industry pending endorsement of final plan.

Extract version 1.0 dated 27 August 2021



Glossary

AMRIA	Australian Metal Recycling Industry Assoc
AO	Authorised Officer
CWRM CEU	Chemical Waste and Recyclable Materials Compliance and Enforcement Unit
CFA	Country Fire Authority
DAIU	Data Analytics and Intelligence Unit
FGD	Focus Group Discussion
FRV	Fire Recovery Victoria
GED	General Environment Duty
KEQ	Key Evaluation Question
KII	Key Informant Interview
PAN	Pollution Abatement Notice
PPU	Preventative Programs Unit
RRFAT	Resource Recovery Facilities Audit Taskforce
WMP 2018	Waste Management Policy 2018 (Combustible Recyclable and Waste Materials)

Executive Summary

The Fire Prevention Program was developed in response to a spate of fires at metal recycling facilities during January 2021. The Program consisted of a compliance and enforcement inspection program of 200 premises, supported by an education and awareness campaign conducted between 30 January and 30 June 2021. An evaluation of the program to date has been completed.

This evaluation is only looking at the compliance and communication components.

No clear and reliable trends can be established at this point as to the long-term effectiveness of the program, as it is too early in the process to determine. This will be better evaluated at the end of next phase of the program which is expected to be completed in June 2023. Notwithstanding this, there are some promising signs that can be identified in the data gathered during this evaluation. These are summarised below:

- Of the 213 sites inspected non-compliances was found in 51% (109) of sites with the split between minor non-compliance (notices) and significant non-compliance (sanctions) being 38% (81) of sites receiving notices and sanctions issued to 13% (29) sites.
- Of the sites inspected that received notices, to date 28% have come into compliance, it's expected that this figure will increase as more EMPs and FRAs are reviewed and response times for the remaining 'open' notices end.
- The majority of the sites that received notices, received them for having no or non-compliant Fire Risk Assessments and Emergency Management Plans. Stockpile spacing and sizing was also in the top three reasons for notices.
- There has been a modest uplift in understanding and confidence of EPOs in assessing fire risk using WMP (CRWM) 2018, however more work is required in this area. Though it's acknowledged that with the introduction of the new Act and GED this now shifts to understanding of reducing fire risk under the GED.

Key learnings from implementation of the first phase of the program (Jan to June 2021) are summarised here:

- In order to maximise the reach and impact of external communications it should target specific audience segments with focus across sector capacity building, compliance and enforcement in order to promote program outcomes and achievements.
- Direct engagement with industry to date has been limited around FPP. Greater opportunity for engagement and feedback from industry may lead to better results in the future and greater industry support for the program.

Based on the findings and lessons learnt, recommendations have been put forward for consideration in the development of future workplans and projects related to fire risk reduction in the waste and recycling sector.

Strategic

- Further research into the relationship between compliance measures and number/likelihood of fires in waste recycling sites is recommended to better understand the impact of the program and inform strategy on how to address fire risk most effectively in the industry.
- Greater focus on education and communication around the GED and obligations to manage fire risks is required to ensure true behaviour change and overall compliance.

Operations and Compliance

- While fire risk assessments should be built into business as usual for site visits, there is also great benefit in applying a model of where some Officers have specialisation with a depth of knowledge of the industry and its various risks. This is the preferred model for AMRIA as it facilitates a conversation, each visit has an educational element along with a compliance assessment.

Communications

- Test the next communication and engagement plan with peak body / volunteer businesses before endorsing
- Provide AOs with materials that can be used during or after a site inspection – e.g. printed posters, information to address particular risks identified to help support Officers to effectively educate on compliance issues
- Identify take up of translated poster to inform need for further site materials (including in LOTE)
- Monitor key themes and issues (and successes) and communicate them through the life of the program – e.g., offer an interview to trade media about stockpiling (as a major fire risk)
- As part of industry newsletters from EPA any changes to guidance could be highlighted, being specific about the changes rather than just a link to the new guidance document.
- Adjust approach to using EPA social media channels – target channels based on content. For example: policy-action messaging (LinkedIn), community updates (Facebook).
- Explore opportunity to use co-regulator channels to share or issue joint messaging via social media. For example: LGA (location based).
- Develop resources targeted to specific stakeholder/audience segment (e.g. presentations, talking points) and maintain/update regularly.
- Proactively include 'fire prevention' messaging in planned EPA stakeholder engagement – including via regions.

Key Findings

1. Remedial notices were issued for fire risks identified at inspected sites

Of the 149 remedial notices that were served by both FPP (115) and OPLE (35), 42 (28%) were revoked because the premises came into compliance with the notice served, which would indicate corrections onsite to comply with regulations.

The remaining 3 were issued official warnings as the requirement date had passed without satisfactory action taken.

Amendments were made to 11 (7%). These were made to correct typographical errors or change dates if factors beyond their control prevented a site from achieving compliance within the given timeframe. The changed date would indicate steps are being taken to address the issues identified in the notices but more time is needed to come into compliance. Only 18 (12%) were escalated.

For the remaining 74, not enough time has passed for these to be either escalated or revoked.

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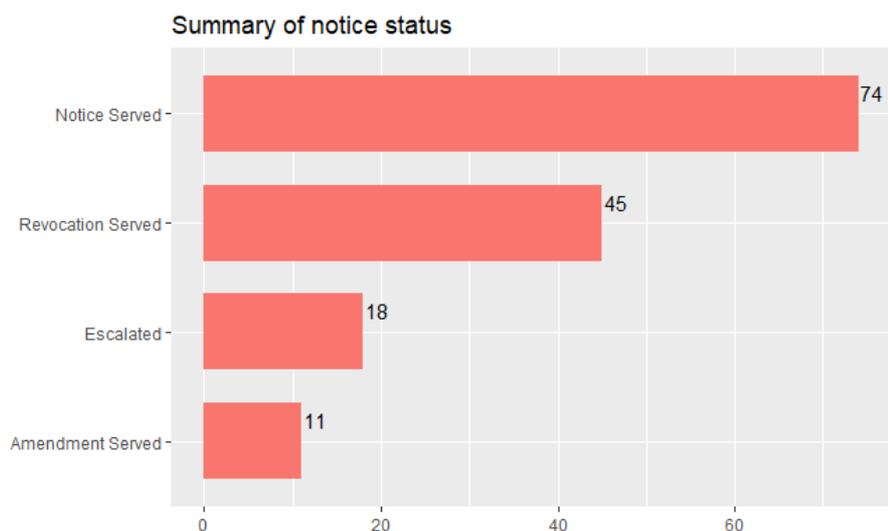


Figure 1: Breakdown of remedial notices served¹

A textual analysis was undertaken to categorise the main reasons for notices served, the following figure shows the main two reasons for notices served were for no or non-compliant FRA and stockpile size or spacing non-compliance, closely followed by no or non-compliant EMP. It should also be noted that in some instances one notice was issued for multiple reasons, these were all FRA, EMP and stockpile related increasing the overall stockpile, FRA and EMP infringements.

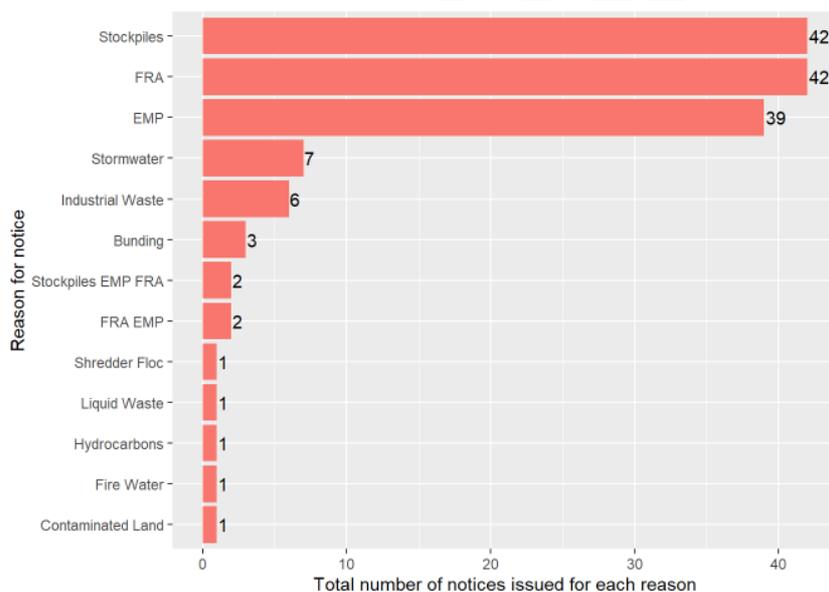


Figure 2: Notices by type

Locations and number of sites with notices served is shown below in figure 3.

The majority of notices are located in metropolitan areas, with a total of 92 located in metropolitan areas and the remaining 56 in regional locations.

This is consistent with the fact that the large recyclers, and therefore fire risks, are primarily located in metropolitan regions.

¹ Figures accurate as of 06/07/21

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The data also demonstrates that the majority of sites had multiple notices served to them. Most often this was a combination of EMP, FRA and stockpile issues.

	Sites inspected	Sites with notices served	Total notices
Gippsland	23	14	22
Metro	89	34	69
North East	19	5	6
North West	19	7	13
South West	20	7	15
Southern Metro	44	13	23

Figure 3: Inspections vs notices served by location

2. Number of fires in recycling sites

The number of fires in recycling sites is a trailing indicator which this program contributes towards but does not have direct control over. The program had a goal of zero fires, achieved primarily through compliance and regulation of the sector.

Given the amount of time FPP has been in place no statistical effect on long-term fire trends can be detected yet from the activities of the program at this stage.

The figure below shows the individual fires that have occurred between January and March 2021, showing the distinction between those that were part of the FPP and those that weren't.

Over the recorded period 19 fires occurred with the majority of major fires occurring in known risk sites which would indicate the intelligence has been accurate and higher risk sites are being captured as part of the program. As no data on the severity of fires was available, the number of appliances deployed has been used as a proxy.

It should also be noted that the cause of fire is rarely recorded, and as such no analysis of cause has been possible for this evaluation.

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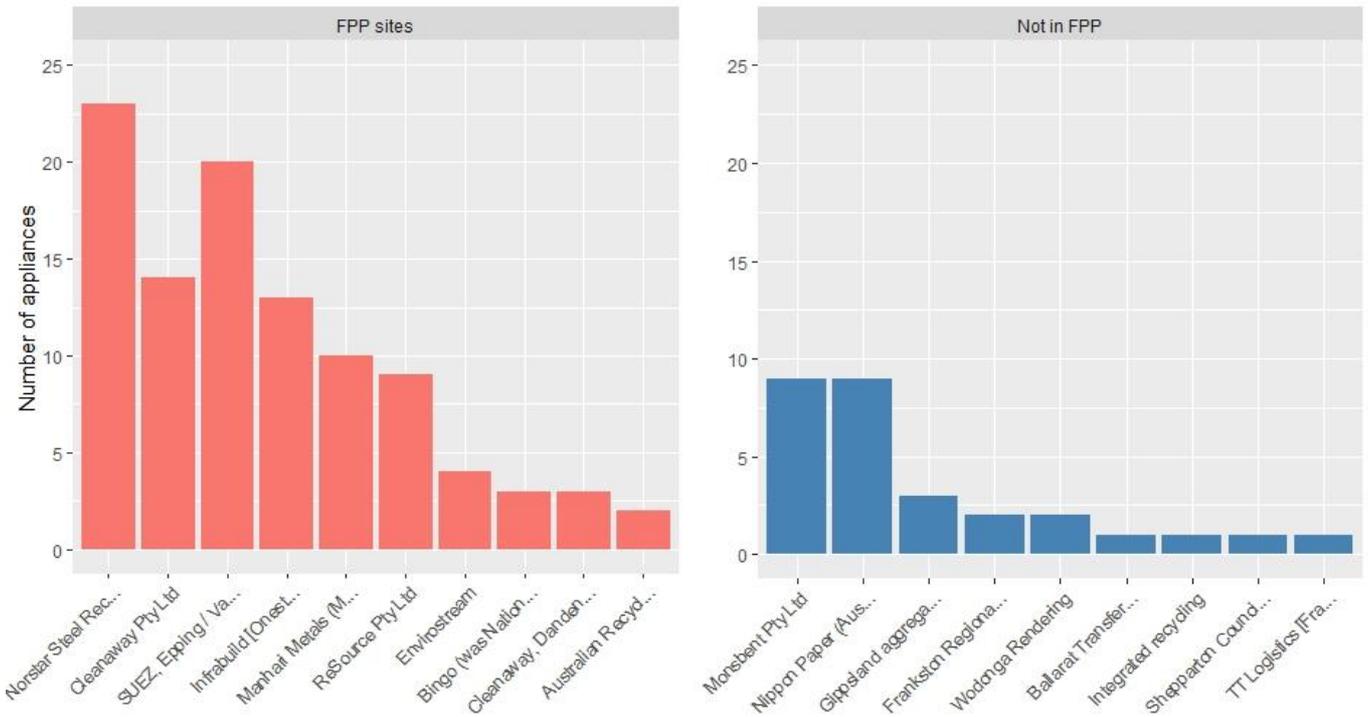


Figure 5: Fires between Jan - March 2021

3. Feedback from industry indicates increased awareness

A survey was sent to industry sites that were understood to have been part of the FPP, to gauge the level of awareness of both the EPA and their responsibilities under the WMP (CRWM) 2018.

Twenty (20) responses were received and of that, only one was previously unaware of the EPA and only one had not received a visit from the EPA in the past six months.

The breakdown of businesses is detailed below, with the majority of respondents being metal recyclers which is consistent with the initial focus of the FPP.

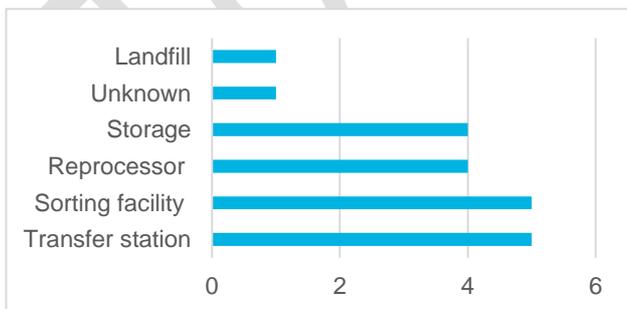


Figure 6: Sites by operation type

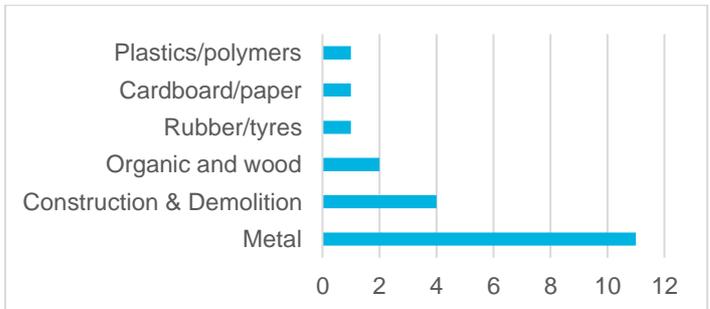


Figure 7: Sites by primary material handled

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Feedback from industry through the survey shows that 75% of respondents either agreed or strongly agreed that they now have an increased understanding and awareness of fire risk prevention through EPA guidance and communication.

Overall, the guidance provided by EPA was clear, useful, and appropriate (70% agree or strongly agree) and respondents felt that they had a good understanding of their obligations and had educated their staff on fire risk prevention.

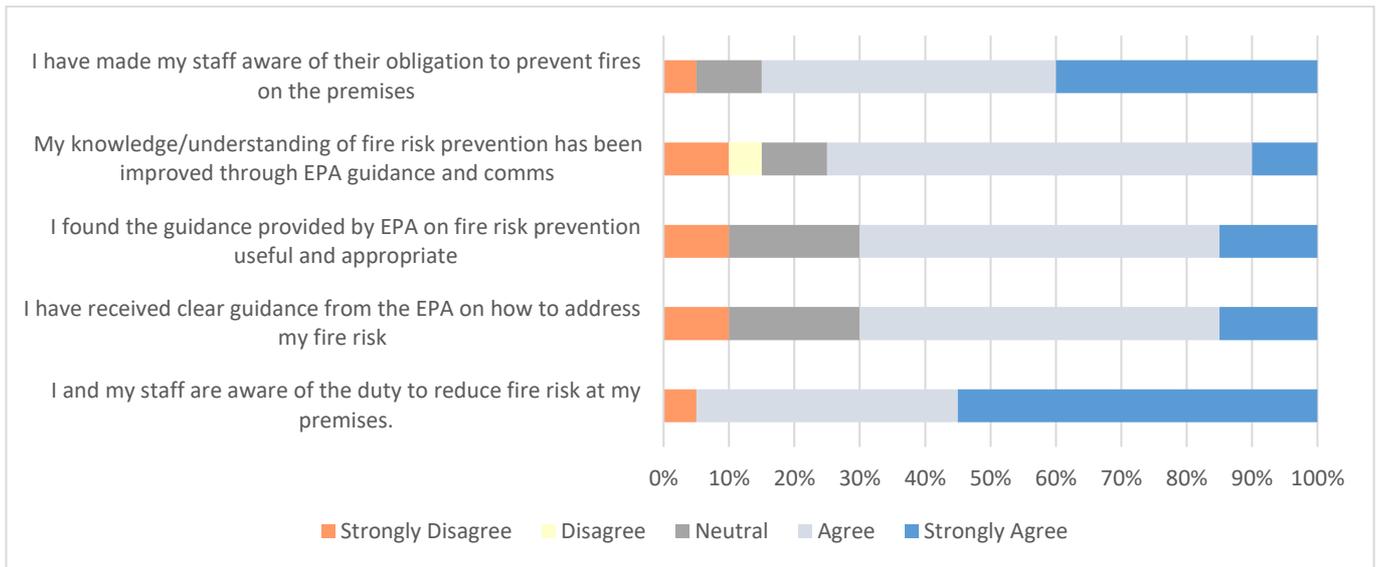


Figure 8: Industry feedback on awareness and understanding

Feedback from AMRIA through focus group discussion was that although the CRWM guidance is helpful, the writing is too academic. It takes a lot of effort for AMRIA to read the guidance and translate that into easily digestible information that their members are able to understand.

5. Feedback from industry on communication

Feedback from AMRIA was that it was clear through their recent interactions with EPA that the Officers had been given a remit to educate duty holders on the upcoming changes to the guidelines and the GED. They were also aware of the greater emphasis on compliance and enforcement.

AMRIA members would find great benefit in EPA having officers with specialist knowledge of their industry, members mentioned that this is how WorkSafe functions, although it is understood by EPA that WorkSafe no longer work this way. AMRIAs experience of WorkSafe visits there is that there is an educational element along with a compliance assessment and the Officers that carry out the inspections are very experienced and able to spot compliance issues quickly and easily. Currently most visits from the EPA they feel as if Officers are very inexperienced and lack the knowledge and confidence to complete a proper assessment, they spend half the visit getting the Officer up to speed on their business and how they understand and are addressing risk, rather than progressing the conversation and working together. Their experience was that when an Officer lacked experience, they relied heavily on checklists which resulted in the visits being solely on compliance without educational elements which AMRIA members appreciate and see great benefit in.

Communications

Over the past six months several different communication approaches were used to engage stakeholder in education and awareness of fire prevention on sites and how to mitigate the risks. Several social media posts went out with little to no engagement from industry in response to these posts, as well as three

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emails/newsletters related to FPP. The two media releases developed weren't picked up by any media outlets and the proposed media around an inspection and radio opportunities were not actioned.

One media release was issued advising on an infringement notice that had been issued, but there was an inconsistent approach to this with overall little pro-active communication to the public through media outlets on progress made through FPP or themes that had been identified.

CEG presented at the March Waste Industry Reference Group which has an estimated combined reach of around 10,000 members. During this meeting information on the FPP was shared.

The three emails went to different mailing lists each time as they targeted different groups. One email was sent out under the broader Fire Prevention Program (1st email). This email targeted the broader resource recovery sector and was intended to increase the sectors awareness of EPAs zero tolerance position. Two (2nd and 3rd) were sent out under the Metal Recycling Industry intervention led by Preventative Programs Unit. As the audience of these emails were clearly defined and the messages tailored to support proactive action on the duty holders part, open rates increased, along with their click through rates. This demonstrated that targeted emails results in an increased level of engagement.

email	Date	Recipient (no)	Open rate (%)	Click through rate (%)
1 st email – duty holders (EPAs fire prevention program)	4 March 2021	1,132	46.52%	21.12%
2 nd email metal recyclers (Important info for duty holders on fire prevention)	2 March 2021	36	51.16%	45.45%
3 rd email sites visited (poster and survey)	6 July 2021	171	60.45%	52.34%

From the small response (20 responses) to the survey conducted the following results were found:

Respondents had accessed information on fire prevention through a range of different modalities detailed below. The most popular being directly through the website (which was updated for FPP), a visit from an officer or from the CRWM guidelines. Respondents were able to select multiple answers to this question. Where 'Other' was selected, additional methods of accessing information were other internal and external fire experts, and auto recycling guidelines.

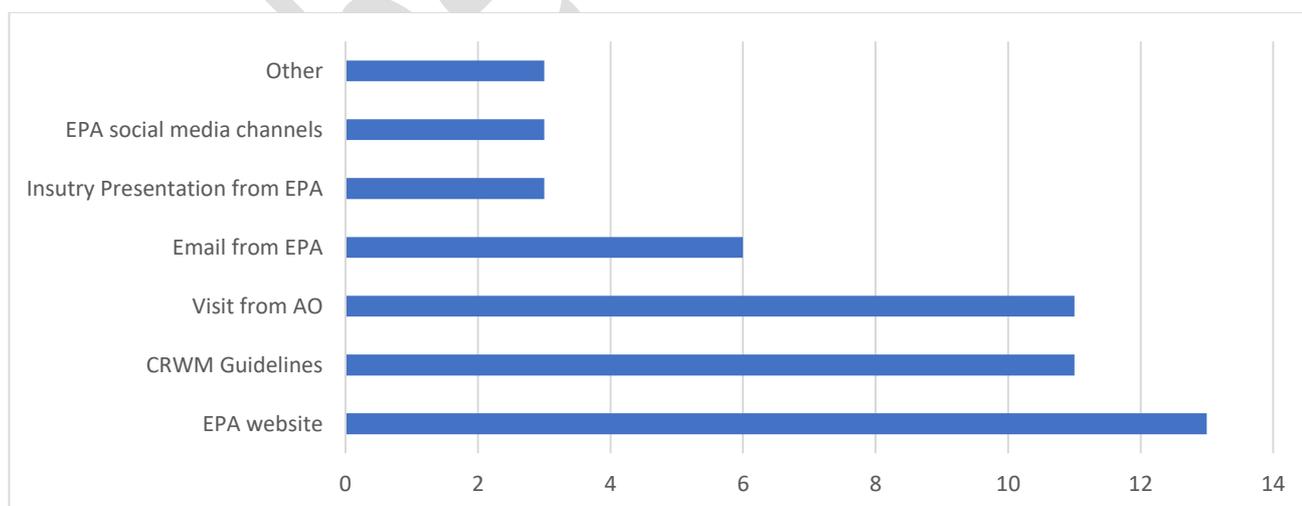


Figure 9: Materials accessed by industry

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The format in which industry prefer to receive information is overwhelmingly in favour of email with other options all even after that. This was a free text field in the survey, allowing respondents to type their most preferred communication mode.

Although email is recorded as the preferred communication mode and open rates being above industry average, the click through rate (and therefore engagement in the content) was around half that again. Further research would be required to determine the reason behind this but given the low response rates to this survey it's possible that the people who responded to the survey are generally more engaged and more likely to read EPA emails.

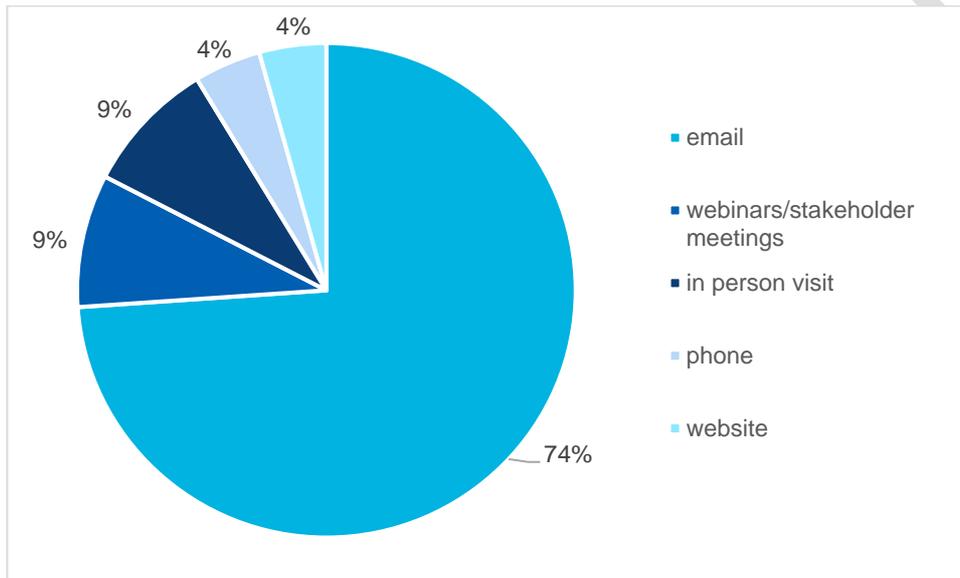


Figure 10: Preferred communication methods

Response to Key Evaluation Questions

KEQ 3. To what extent has the project improved levels of compliance with the WMP2018 in duty holders inspected?

The program handed out a total of 149 remedial notices, 43 of which have so far been revoked (as of 7/6/21) because the sites have come into compliance. This suggests that so far 28% of all sites assessed as previously non-compliant are now compliant. It is hoped that this figure will increase over time as notice periods of the remaining 74 notices expire. Given the statutory timeframe for around half the notices has not expired it is too early to make a solid determination as to the success of the program in this respect, however when considered with the feedback from industry and their willingness to comply, as well as educational elements incorporated into the program it is likely that more than 30% of duty holders inspected will come into compliance by the end of June 2023.

Of the 213 sites inspected non-compliance was found in 51% (109) of sites with the split between minor non-compliance (notices) and significant non-compliance (sanctions) being 38% (81) of sites receiving notices and sanctions issued to 13% (29) sites.

The majority of notices issued were for no or non-compliant EMP or FRA which would indicate that the sites overall are running safely with appropriate controls in place for managing fire, such as appropriate spacing of stockpiles and minimum distances from hot works, meaning practical application of risk mitigation measures are

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in place, it's the documentation that is lacking. Although it's acknowledged that in some instances additional non-compliances would be identified once a second site visit is conducted to check implementation of controls identified in the FRA.

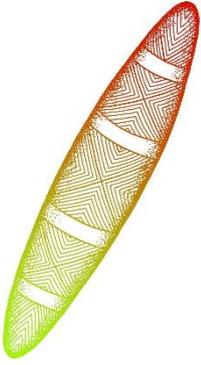
Industry feedback indicates that the communication through email, industry forums, site visits and official guidance has been helpful for duty holder to better understand their responsibilities and the requirements under the WMP (CRWM) 2018. Further targeted communication and industry engagement would assist to yield better overall results by June 2023.

Feedback from the metal industry was that although the program did not have any significant impact on improving their levels of understanding of fire risk, the guidance has been helpful as were the newsletters, but they would appreciate more assistance in interpreting the guidance.

The guidance language was found to be too academic and difficult to understand. One AMRIA member has been working on interpreting the revised guidance (1667-3) to then distribute and assist other members in understanding their responsibilities. AMRIA commented that for time-poor duty holders, trying to do the right thing, there is a significant amount of compliance guidelines and paperwork to be across not only from EPA but from other regulators as well such as WorkSafe. It would help to boost compliance if summaries and examples were provided to assist with understanding of requirements. The additional worked examples and video of how to assess and address fire risk that have just been released will assist in this understanding. Additionally, to have a section at the beginning of the guidance summarising the areas that have been updated. This would allow for duty holders to be able to easily identify the areas that apply to them and read the most important sections.

Recognising that the metal recycling sector is culturally and linguistically diverse, and that the guidance is detailed, a visual poster outlining key risks and controls was co-designed to help the sector. The content for this poster was drawn from an analysis of metal recycling fire risk assessments, so the key risks were considered. While this was developed during the program implementation period, it was not distributed until July, so its effectiveness was unable to be measured in this evaluation.

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We pay respect to Aboriginal Elders, past and present.

As Victoria's environmental regulator, we pay respect to how Country has been protected and cared for by Aboriginal people over many tens of thousands of years.

We acknowledge the unique spiritual and cultural significance of land, water and all that is in the environment to Traditional Owners, and recognise their continuing connection to, and aspirations for Country.



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