June 2025

Use of Dogs in Predator Free Projects

A Predator Free 2050 Limited "Deep Dive"

Collins Consulting Limited

Contents

Executive Summary

On May 27, 2025, Predator Free 2050 Limited convened a national workshop to chart the future role of detector dogs in New Zealand's predator elimination efforts. Researchers, practitioners, agencies and operational leaders gathered to share knowledge, test assumptions and map a collective way forward. The workshop confirmed what experience in the field has already demonstrated: detector dogs and their expert handlers are essential to achieving Predator Free 2050's ambitious goals.

Detector dogs are increasingly central to all phases of elimination, from early knockdown to ongoing surveillance and proof of absence. Their ability to deliver rapid, real-time detection, adapt to changing field conditions and build trust with landowners makes them a uniquely powerful tool. Yet, despite this growing role, the workshop exposed persistent systemic challenges that are preventing dogs from reaching their full potential.

At the heart of these challenges is the recognition of handler expertise. Handlers are not simply "operating" dogs; they are highly skilled professionals whose judgment, field knowledge and planning insight are critical to every successful dog deployment. Participants emphasised that handlers should be embedded into project design from the earliest stages, not brought in after key decisions have been made.

Workforce development emerged as a major concern. New Zealand lacks the framework to recruit, train and accredit new handlers at the scale required. Current mentoring pathways remain largely informal, risking the loss of institutional knowledge as experienced handlers exit the field. Participants called for a coordinated national mentoring and apprenticeship system, backed by long-term investment that reflects the years needed to develop effective teams.

Training and certification standards also require modernisation. The increasing complexity of dog roles—such as dual detection of scat and live animals and operations across diverse

environments—demands flexible, project-specific certification systems that uphold high standards while responding to real-world needs. Current one-size-fits-all approaches no longer serve the sector effectively.

Legal ambiguity was identified as another systemic barrier. Overlaps and inconsistencies across the Conservation Act, Biosecurity Act and Wild Animal Control Act create uncertainty for projects, complicating issues like muzzling requirements, live animal dispatch authorities and exemptions. Clarifying these frameworks and delivering national consistency is now urgent.

The workshop also underscored the importance of strengthening the research base to guide operational decisions. Recent studies into scat ageing, detection probabilities and integrated surveillance techniques demonstrate the value of combining dogs with complementary technologies like drones and cameras. Ongoing research will be critical to refine detection strategies for low-density pests and develop new operational metrics to inform adaptive management.

Sustained financial investment remains a fundamental issue. Short-term funding cycles weaken capacity-building efforts, delay workforce growth and limit the sector's ability to retain skilled handlers. Without secure, multi-year funding commitments, the sector cannot scale dog operations to meet national goals.

At the same time, participants recognised the need to elevate public and institutional recognition of detector dogs as essential, frontline conservation assets. Despite their proven success, dog programmes are often still seen as supplementary. The sector must raise the visibility of dog teams, promote their unique strengths and actively manage community relationships through transparent communication and strong social licence.

The workshop closed with a strong consensus that the sector must act collectively, urgently and strategically to professionalise and expand the role of detector dogs. Participants strongly endorsed the creation of an inclusive national leadership body, such as a charitable trust or industry organisation, to coordinate policy, build capacity, protect institutional knowledge and drive systemic reform.

Appendix 1 lists the workshop participants.

Context and Background

Landscape projects have been challenged to detect and remove all rats, mustelids and possums in their operational areas. Projects have responded with innovative approaches and have learned much in their determination to achieve and defend elimination, including the importance of detector dogs.

This workshop brought together agencies, researchers, practitioners and operational staff to share their knowledge and expertise around the use of dogs

This proceedings report summarises the discussions and will help share the large amount of information covered at the workshop to a wider audience. However, the statements made by presenters and participants at the workshop do not necessarily reflect the views of PF2050 Limited.

Workshop Sessions

Conservation Dogs Programme: Current State and Future Directions

The workshop opened with a presentation from the Department of Conservation (DOC) by Helen Neale, Manager Conservation Dogs Programme (CDP), and Angela Newport, Senior Advisor, Pest Detection Dogs, with an overview of the programme.

As of 2025, the CDP oversees more than 120 dog-handler teams. Approximately one-third of handlers are DOC staff, with the remaining two-thirds employed by other agencies or as independent contractors. DOC's core team includes six permanent staff and seven certifiers (five from DOC and two from the contracting sector).

The dogs are trained to detect a broad range of pests including rodents, mustelids, weeds, Argentine ants, plague skinks, kauri dieback, hedgehogs, possums and wallabies. They also support work on native species such as kiwi, whio, kākāpō, pātēkē, takahē and lizards—with training now extending to bats.

Despite being governed by DOC, the programme has a national scope and is not restricted to public conservation land. Participants suggested that to reflect this, the programme's long-term oversight should be shared across agencies or managed through a more neutral structure.

Standard Operating Procedures and Certification

The Conservation dog-handler Team Standard Operating Procedure (SOP), first approved in 2019 and reviewed in 2022, is currently undergoing revision. The SOP applies to all dog-handler teams working on public conservation land or near ground-dwelling native species. External groups are expected to adhere to these standards through formal Memoranda of Understanding.

The SOP is guided by legislation including the Wildlife Act and Conservation Act. The ongoing review is focussed on refining processes and ensuring alignment with legislative changes. Wording adjustments are meant to clarify operational guidance while preserving consistency.

Handler and dog applications are evaluated with an emphasis on future-proofing the workforce, prioritising project needs (such as scat detection) and assessing handler experience. The CDP plays a gatekeeping role in this process, particularly when applications come from private operators, ensuring that proposed teams address genuine needs and have a clear pathway to meaningful work.

Training and Technical Development

Helen and Angela from the Conservation Dog Programme said significant investment is being directed toward enhancing training techniques and refining species-specific detection skills. Targeted training camps and an online knowledge hub, accessible to external agencies as well as DOC staff , support the distribution of new methods. Recent developments include updated protocols for scat certification. This raised questions about whether separate certification for animal and scat detection is necessary. DOC is currently reviewing proficiency standards for scat dogs

A Wild Animal Detection Dog SOP was approved in 2022. This national standard covers dogs used to control deer, pigs, goats and wallabies. However, there are no plans to expand this list to smaller species, as this increases reliance on the dog's sensory perception and introduces a higher risk of error when visual confirmation is not possible.

Kiwi Avoidance Training

In partnership with Save the Kiwi, the CDP supports Kiwi Avoidance Training (KAT). A national KAT protocol has been developed, alongside a new public-facing website: kiwiavoidancetraining.nz. This initiative is a key tool in reducing the impacts of hunting and companion dogs on kiwi.

Collaboration and Capacity Building

The CDP actively participates in an intergovernmental working group on detection dogs and draws on earlier initiatives such as the Place Group to shape its thinking and connect across agencies. While not all Place Group recommendations could be implemented due to limited funding, key ideas—such as centralising knowledge and improving interagency collaboration—are being advanced.

Knowledge transfer within the programme often flows from the ground up. The CDP team works closely with handlers and contractors, but there is a recognised need to improve information flow from individual projects back to the national programme. Different perspectives between DOC and contractors make effective communication particularly important.

To meet growing demand and scale toward Predator Free 2050 goals, the CDP is working to improve internal coordination, clarify application processes and build capacity. However, participants voiced concerns about DOC's limited focus due to their focus on predator-free offshore islands and the absence of a long-term national strategy for scaling up dog use.

Detection dogs capacity development

Sarah Wilson, Programme Leader for Predator Free Banks Peninsula (PFBP), presented the ongoing work sponsored by Predator Free 2050 Limited aimed at strengthening the use of detection dogs in elimination projects. The initiative has two key phases: a scoping phase to understand the current landscape since the Place Group report (Document Reference: DOC-22-517, Recommendations for a future-fit Conservation Dogs System to support a Predator Free 2050 Dogs Programme) and an implementation phase that will build on those findings.

The scoping phase has already identified several foundational issues and opportunities, forming the basis for developing a national framework for detector dog deployment. The second phase will use scenario modelling and desktop exercises to explore different approaches for scaling up detector dog use. This includes evaluating the benefits and limitations of in-house teams, contractors, or hybrid models and drawing lessons from existing dog deployment practices. The intention is to develop a set of flexible support models adaptable to the varying demands of predator elimination projects.

A core aim of the project is to ensure dogs are the "right tool in the right place," particularly in critical project phases such as knockdown and proof of absence. This involves more than just the dogs—it requires a systems-level understanding of how detection dogs interact with other tools and project components.

One major emphasis was the importance of embedding dog handlers into the project planning process from the outset. Late-stage involvement often leads to inefficient deployment and missed opportunities. Clear operational protocols, particularly for how teams respond when a dog makes a find, are also essential. This clarity is critical for both handlers and contractors to operate effectively and safely.

Handler expertise was identified as equally important as canine capability. Technical advice and training standards vary and ensuring consistent, high-quality performance across handlers is a key concern. The workshop also raised the question of whether dogs used during knockdown operations might need distinct certification—such as alignment with Wild Animal Control Act training protocols.

While Sarah is stepping away from her role at PFBP after the workshop, it is hoped the project itself will continue under DOC's management.

The session concluded with a call for a holistic, systems-oriented view of dog deployment in predator elimination, recognising that the field is evolving rapidly and must remain responsive to emerging needs and innovations.

Latest research updates

This session highlighted recent research on the use of detection dogs, featuring presentations by wildlife biologist Emma Feenstra and Al Glen, a wildlife ecologist with Manaaki Whenua Landcare Research.

Emma shared her work on possum scat detection using dog teams in Taranaki. By surveying defined 8-hectare grid cells, researchers can precisely map scat distribution. This mapping enables more efficient and targeted predator control, allowing managers to quickly identify and prioritise areas for follow-up. The method also helps distinguish between new incursions and isolated detections, refining how control resources are allocated.

Emma's work also investigated the longevity and ageing of scat. In winter conditions, fresh local scat was found to last up to 50 days. However, scat samples from Auckland showed reduced longevity, though this could not conclusively be attributed to weather differences. Physical indicators of freshness—such as mucus and surface shine—declined sharply after seven days and disappeared by day fourteen. Scent also dropped after two weeks, while texture became harder and crumblier over time. These indicators are valuable for estimating scat age. Importantly, dogs consistently detected both fresh and older scats, supporting the reliability of this possum detection method.

Future research questions include whether dogs can be trained to identify individual animals via scat and how accurately dogs and handlers can assess scat age.

Al's presentation focused on proof of absence (POA) and the role of detection probability in determining whether a target species is truly absent. He explained that detection probability increases with the distance travelled by a dog team and that search cell size should reflect the minimum home range of the target species. This raised broader questions about how to adjust for varying home ranges across species and landscapes.

A key challenge in POA work is distinguishing between "survivors" and "arrivers" as the appropriate management response differs. Reinvasion behaviour, including animals returning to known hotspots, was identified as an important area for further study.

Al also discussed trail cameras as a complementary tool to detection dogs. Studies such as at the Poutiri Ao ō Tāne project have shown that camera traps can offer similar detection probabilities. However, while cameras can remain deployed for longer periods, dogs are more efficient in targeted, early-phase operations. Analytical models used in POA assessments can be adjusted for risk tolerance and even for the possibility of a detection dog having an "off day."

Both speakers emphasised the value of integrating detection dogs into broader surveillance systems, including tools like drones and camera traps. Ensuring handlers are included in planning and can clearly interpret and communicate findings is critical to maximising impact.

Several key takeaways emerged:

- Research findings should be fed directly into operational planning for predator control
- Dog-handler teams must be deployed strategically to maximise effectiveness
- Collaboration among researchers is vital; participants expressed a desire to stay better informed about relevant studies, such as those linked to Sarah Wilson's contract work

- Archiving scat samples for future genetic analysis could enhance verification efforts.

Current operational knowledge: detection and elimination

This session featured a wide-ranging discussion from operational dog teams working across New Zealand. Practitioners shared lessons learned, strategic innovations and practical challenges from on-the-ground experience. Panellists included Max Hoegh (Hoegh Hunting), Jonah Kitto Verhoef (Predator Free Dunedin), Nick Heslop (Towards Predator Free Taranaki), Oliver Hopwood (Predator Free Whangarei), Jason Millichamp (Pest Free Banks Peninsula), Frank Lepera and Tilde Sorenson (Te Korowai o Waiheke), Sally Bain (Predator Free Wellington) and Guus Knoppers (K9 Detection Services).

Dogs as Predictive Tools and Real-Time Responders

Max described the strategic value of integrating detection dogs early in possum elimination efforts. Scat-detecting dogs, he argued, act as "multipliers"—directing trappers to where possums are active and allowing for more efficient resource allocation. Early deployment builds predictability in control efforts, avoids inefficiencies caused by poor trap placement and can outperform large-scale trapping in cost-effectiveness. However, he stressed that follow-up by trappers remains essential.

Jonah offered compelling examples of rapid success using dogs, including one case where a dog-led search resulted in a possum being captured within three days—compared to an estimated six months using cameras and traps alone. He emphasised that "no result is still a learning" and noted that dog work typically accounts for 10–50 hours per week in his operation, blending part-time in-house dogs with contractors. He highlighted the importance of contractor partnerships in maintaining standards and sharing knowledge.

Nick and Oli added operational insights from a council and suppression perspective. Nick highlighted the value of detection dogs in generating clear, real-time spatial data that resonates with audiences. Oli noted that while cameras are effective at confirming presence or absence, they lag in responsiveness, especially when animal densities are low. Dogs, in contrast, continue to show progression in challenging conditions and can maintain momentum in elimination efforts.

Urban and Community-Engaged Models

Frank and Tilde described working in a highly urbanised setting on Waiheke Island where their detect-and-respond model is driven by public sightings of stoats. Dogs are deployed to interpret the animal's movement and fine-tune trap placement—sometimes by as little as one metre. They emphasised the handler's skill in interpreting and communicating dog behaviour as vital for operational success. Their model blends an in-house scat dog with a pool of contractors and relies heavily on community engagement, including school outreach. Remarkably, only three properties declined access over three years. Dogs, they observed, are often more acceptable to the public than cameras or traps and their efficiency and charisma help foster trust.

Sally works part-time and is conscious of the potential of overworking of both dog and handler. She underscored the risks to working dogs in urban settings, especially from domestic animals and stressed the importance of getting proper insurance. Predator Free Banks Peninsula noted they were successful in getting a policy with appropriate coverage. Sally stressed that

navigating urban social dynamics, securing land access and managing community concerns all require significant interpersonal effort and resilience.

Dog Health, Species Specificity and Handler Safety

Jason shared detailed insights into the operational use of "Schmack," a hunting dog used to detect possums which were then dispatched. He warned against overworking dogs, recounting a personal lesson after Schmack suffered a shoulder injury. His team uses a paired-dog approach for backup and added efficiency. PFBP's toolkit includes hedgehog, feral cat and domestic cat dogs. While dual-species targeting proved valuable, Jason noted that retraining dogs for a new species can be difficult and sometimes not cost-effective. In some cases, starting fresh with a new dog is more efficient.

He also emphasised the influence of funding timeframes on whether to invest in in-house capability or rely on contractors. Operational models need to balance flexibility with handler wellbeing and canine welfare. He noted that having multiple dogs increases complexity and requires thoughtful management.

Field Realities: Terrain, Wildlife and Risk

Operational success also depends on careful management of terrain, species behaviours and seasonal considerations. Jonah gave examples of how dog work must avoid areas with Yellow-eyed Penguins or toxic plants like ongaonga, limiting access to specific times of the year. He highlighted the practical importance of dog size—smaller dogs navigate dense undergrowth more effectively—and noted risks from allergens such as tradescantia. Handlers, he said, must often be physically capable of navigating cliffs and challenging terrain, raising the question of standardised fitness assessments for dog teams.

Specialised Detection: Wallaby Surveillance

Guus offered insights from his wallaby dog operations. His team includes four detection dogs and handlers, used for both hunting and surveillance. Scat-only dogs also are employed, particularly for follow-up work. Guus noted that dogs typically cover 8–15 km daily and are especially valuable in low-density detection scenarios where other tools (e.g. trail or thermal cameras) may fail. Detections guide decisions on drone surveillance, aerial drops or ground operations. The discovery of parma wallaby unexpectedly present in the North Island required retraining the scat dog due to different faecal characteristics.

He also underscored the importance of using dogs even when other methods come up empty, calling dogs a "belt and braces" solution. Each species, he stressed, has a distinct scent signature, making dog detection uniquely effective.

Cross-Cutting Themes and Lessons

Across all presentations, common themes emerged:

- **Early integration** of dogs improves efficiency and predictability in elimination efforts
- **Real-time data** and the handler's ability to interpret and act on it are critical for success
- **Flexibility** through mixed models (contractor and in-house) increases resilience
- **Urban operations** require strong community engagement and careful navigation of social licence

- **Health and safety** concerns—both canine and human—must be central to planning
- **Funding and insurance** frameworks significantly affect operational decisions
- **Handlers must be skilled**, not only in dog work but also in terrain navigation, stakeholder communication and species ecology.

Dogs were repeatedly described not only as detection tools but as social connectors, helping build trust and legitimacy in predator control efforts. Their ability to produce results where other methods fail, combined with their public appeal, makes them a critical component in New Zealand's biosecurity and conservation toolkit.

Operational challenges and hurdles

In the first breakout session, participants discussed the practical and systemic hurdles of working with dogs in predator free projects. Discussions spanned handler recognition, data use, funding, policy clarity, training needs and social dynamics. Common themes and challenges emerged from these discussions.

Underappreciation and Misunderstanding of Handler Expertise

Several participants felt that project managers often underestimate the skills and knowledge of handlers, treating dogs as interchangeable tools and undervaluing the dog-handler team dynamic. A common misconception is that a trained dog can simply be handed to anyone to use. The importance of integrating handler input into work planning and project phasing was emphasised. A common view was that handlers must be recognised as experts, not simply equipment operators.

Training, Certification and Mentoring Gaps

Current training programmes were seen as too rigid or misaligned with field needs. While essential components like kiwi aversion training are vital in some contexts, they may be unnecessary elsewhere. Participants advocated for more project-specific, modular training options and better recognition of advanced dog-handler skills.

Mentoring and upskilling pathways also were noted as underdeveloped. A national framework for mentorship, including formal apprenticeships—potentially outside DOC structures—was proposed to build capacity and reduce the loss of institutional knowledge.

Burnout, Capacity and Welfare Considerations

Burnout among both dogs and handlers emerged as a major concern. Limited funding often forces teams to overextend, reducing rest periods and increasing injury risk. A better ratio of handlers to operational blocks, combined with guaranteed rest and support systems, would improve both welfare and performance. The significant personal commitment required to take on a working dog was highlighted as a potential barrier to attracting younger handlers to the field.

Data Use and Management

There was strong support for more robust, data-driven management practices. Projects need to improve the collection and interpretation of operational data—especially in low-detection contexts—both to inform decision-making and to build confidence in transition phases.

Technical challenges such as estimating the age of scat across species remain unresolved. A better understanding of how to interpret and act on such data is needed to fully capitalise on the potential of detection dogs.

Knowledge Sharing and Institutional Barriers

Repeated mistakes and duplicated effort were attributed to poor knowledge-sharing structures. The competitive nature of funding discourages open collaboration between organisations. When companies involved in projects dissolve, institutional memory is often lost. Contractors were acknowledged as valuable knowledge bridges between projects, but more systematic knowledge-sharing platforms are needed.

Funding Constraints and Strategic Investment

Participants described how short-term funding cycles limit the ability to invest in long-term training and team development. This also creates uncertainty around when and how to involve contractors. The cost of building and maintaining high-quality dog-handler teams is significant, but current project budgets often fail to reflect this. Long-term, stable funding was deemed essential to maintain operational integrity and attract high-calibre personnel.

Social Licence and Access Permissions

Gaining and maintaining access to private land remains challenging. Repeat visits risk eroding landowner goodwill, especially if health and safety concerns are not proactively addressed. Strong internal policies and effective communication were seen as key to managing risk and building trust. In urban and rural settings alike, dogs can serve as valuable ambassadors for projects, generally being perceived more positively than traps or toxins.

Policy and Regulatory Ambiguity

Confusion over legal frameworks—especially the intersections of the Biosecurity Act, Conservation Act and Wild Animal Control Act—was a recurrent theme. For example, muzzling requirements are inconsistent. There is a need for clearer national guidance and better legal alignment across conservation, biosecurity and pest control contexts.

Certification gaps were also discussed. Work involving live animal detection or dispatch may require separate MPI exemptions, which fall outside the scope of the Conservation Dogs Programme. The lack of clarity around these overlaps contributes to operational grey areas and heightens the risk of missteps affecting social licence.

Morale, Culture and the Role of Dogs in Teams

Detector dog sweeps were credited with boosting morale, especially when routine work (e.g., checking empty traps) becomes demotivating. When a dog makes a successful find, it should be celebrated—not a regrettable setback. Dogs can re-energise teams by bringing renewed focus and visible results.

Emerging Needs and Strategic Directions

Participants flagged growing demand for stoat dogs and for more research into detection strategies at low population densities. Dogs were viewed as vital tools for locating hotspots and confirming absence. A shift toward greater use of scat dogs is underway, but participants cautioned against diluting existing successful approaches. Strategic thinking is needed about what dogs are trained to do and where they’re deployed.

Prioritised Solutions

The second breakout session focused on identifying solutions and pathways to address the most pressing operational and systemic challenges

Policy and Leadership Priorities

There was strong support for restructuring leadership of the CDP to move away from sole oversight by the Department of Conservation. Shifting ministerial responsibility for Predator Free 2050 (PF2050) was also suggested as a way to elevate the programme's strategic importance within government and better reflect its national scope.

In addition, participants expressed enthusiasm for establishing an independent organisation to support handlers—a dedicated industry body, union or charitable trust. This entity could be a knowledge repository, provide mentorship and ensure institutional knowledge is preserved. It was seen as a potentially more effective and sustainable alternative to the current CDP structure and participants noted that this model should draw on lessons from earlier national dog meetings.

The complex interplay between the Biosecurity Act, Conservation Act and Wild Animal Control Act (WACA) has created legal grey areas that cause uncertainty in the field. Participants called for clearer policy guidance and education to ensure that all involved parties understand their legal obligations and regulatory constraints. In particular, they emphasised the need to distinguish between WACA dogs and other conservation dogs to ensure ethical, safe and consistent operational standards.

Strategic Planning and Capacity Development

Long-term strategic planning was widely acknowledged as lacking within the CDP, despite being essential for building capacity to meet future goals. Participants called for the development of a comprehensive 10-year plan that would guide the expansion of dog-handler teams through to 2030 and beyond. This level of planning would allow for better alignment between project needs and available resources, but only if projects are transparent about their operational stage and approaching needs.

The integration of dog handlers into project teams from the outset, rather than treating them as contractors brought in after planning decisions have been made, was seen as transformative. Early involvement ensures handlers' expertise informs project design, improves operational outcomes and boosts team morale.

Funding was a recurring theme throughout the session. Without secure and guaranteed long-term investment, organisations are reluctant to commit to the multi-year training and retention required to develop reliable dog-handler teams. Participants stressed that sustained funding is crucial for enabling adequate handler-to-block ratios, supporting proper rest cycles for dogs and handlers and reducing the risks of burnout or operational fatigue.

Participants called for a national mentoring and apprenticeship scheme, more frequent cross-agency workshops and the creation of a comprehensive contact list of experienced practitioners. This would foster knowledge-sharing and ensure new handlers receive consistent, high-quality training.

Research and Innovation Priorities

An ongoing research priority was improving the ability to detect species at very low population densities, particularly stoats. Understanding detection probabilities for key target species across different environments remains critical to increasing confidence in eradication outcomes and fine-tuning operational responses.

Participants strongly supported further integration of dogs with emerging technologies. Several innovative models were discussed, including the use of drones and dogs working in tandem. These approaches could see drones guiding dogs to cover larger areas or dogs leading drone operators to potential detection sites. Dogs could also be used to locate dens for subsequent fumigation, particularly when young animals have not yet become independent.

In relation to Proof of Absence (POA) work, participants highlighted the need for continued research on how dogs can optimise trap placement and serve as an efficient early warning system. One idea proposed was the creation of a real-time system based on "possums per hour" as a performance metric, using dog detections to inform management decisions dynamically.

Conclusions

Several common themes emerged from the workshop, painting a picture of the current state and future needs of the detector dog field in New Zealand.

A frequently repeated theme was **handler expertise and value**. Handlers are highly skilled experts, absolutely crucial to the success of any dog operation. Despite this, their expertise seems undervalued or misunderstood by project managers, and this is frequently reflected in their remuneration.

Funding uncertainty and constraints are critical issues across PF2050 and often were cited in this workshop as well. Short funding cycles and persistent budget limitations were seen to significantly impact long-term planning, the ability to invest in training, overall capacity building for both dogs and handlers and the retention of skilled personnel. These financial realities also heavily influence decisions regarding the use of in-house versus contractor models.

The need for improved **knowledge sharing and standardization** was a collective request. While efforts are being made to share knowledge—such as CDP staff actively engaging with handlers and contractors acting as conduits of information—systemic challenges, including competition for funding and organizational changes, continue to hinder these efforts. There is a strong collective desire for more standardised best practices, better mechanisms for knowledge transfer (such as workshops and contact lists) and a more concerted effort to learn from past experiences to avoid "reinventing the wheel."

The ongoing **SOP review** was recognised as critical. The need to review and adapt Standard Operating Procedures for certification, training and operational deployment is essential to meet the evolving needs of the field—such as the rise of scat dogs and new detection techniques—and to ensure these procedures remain relevant and effective.

Social license and community engagement were highlighted as vital for operational success. Gaining and maintaining landowner permission and broader community support is particularly crucial in urban and semi-rural landscapes. Dogs can be powerful tools for engagement, often

helping to open doors, but concerns around health and safety, as well as public perceptions (for instance, regarding dog kills), require careful consideration.

A consistent call was made for better **data and metrics, particularly related to proof of absence**. Workshop participants expressed a clear need for more robust data collection, the development of clear metrics for success and further dedicated research into POA methodologies to build confidence, optimise dog deployment strategies and inform management decisions.

Dog welfare and management was a strong concern throughout the sessions. The importance of dogs' welfare—which includes providing adequate rest to prevent burnout and injury, having backup dogs available, effectively managing environmental hazards (such as allergens and challenging terrain) and securing appropriate insurance—was frequently highlighted.

The principle of **integration and planning** was strongly emphasised. Detector dogs and their handlers should be integrated into project planning from the very earliest stages, not merely brought in as an afterthought. The input of handlers is key to maximizing their effectiveness.

Policy and legislative clarity is needed. Ambiguities and overlaps in existing legislation (including the Conservation Act, Biosecurity Act and WACA) and their associated requirements can create confusion and operational challenges.

Capacity building for dogs and handlers was identified as a pressing need. There is a clear requirement for more certified dogs and skilled handlers across a range of specializations (such as stoat detection and scat detection). Strategic planning, including the development of a CDP 10-year plan, is essential to meet the anticipated future demands.

Discussions also revolved around different **models of dog use**, weighing the pros and cons of in-house dog teams, the use of contractors, or mixed models. These decisions are influenced by a complex interplay of factors including desired response times, cost considerations, the level of investment required and the certainty of funding.

The workshop concluded with a strong consensus that the sector must act collectively to protect, grow and professionalise the use of detector dogs to support the PF2050 mission.

Summary of Recommendations

1. **Establish a Sector-Wide Leadership Body**
   Create an inclusive, independent leadership structure—such as a charitable trust or industry body—that holds institutional knowledge, coordinates policy development, manages shared resources and supports cross-agency collaboration. This structure

should sit beyond the Department of Conservation to reflect the diversity of stakeholders involved.

2. **Develop a 10-Year National Strategic Plan**
   Formulate a comprehensive 10-year roadmap to guide the scale-up of detector dog capacity and capability through to 2030. This plan should address funding needs, training pipelines, certification frameworks, research priorities and operational scalability to meet Predator Free 2050 goals.

3. **Integrate Handlers into Project Planning**
   Ensure dog handlers are included as core members of project teams from the earliest stages of planning. Early involvement allows handlers to contribute critical expertise to project design, trap network placement and field strategy, improving efficiency and outcomes.

4. **Secure Sustainable, Long-Term Funding**
   Commit to multi-year, guaranteed funding mechanisms that support handler training, team retention, operational stability and scalable response capacity. Sustained investment is essential for the growth and professionalism of dog-handler teams.

5. **Establish Professional Development Pathways**
   Develop a structured national mentoring and apprenticeship programme to train new handlers, transfer expertise and ensure consistent standards of professional competence across the sector.

6. **Reform and Standardise Certification**
   Modernise certification processes to include dual certification for scat and live animal detection, habitat-specific modules and cross-recognition across both biosecurity and conservation contexts. Training modules should move away from a one-size-fits-all approach and align with actual field demands.

7. **Clarify Legal and Regulatory Frameworks**
   Resolve the legal ambiguities between the Biosecurity Act, Conservation Act, Wild Animal Control Act (WACA) and existing SOPs. Provide clear, consistent national guidelines that address muzzling requirements, species-specific risks, handler exemptions and operational authorities under different legislative regimes.

8. **Strengthen Knowledge-Sharing Mechanisms**
   Formalise national knowledge-sharing structures, including regular cross-agency workshops, sector-wide hui and a central contact list of experienced practitioners to preserve institutional memory and reduce duplication of effort.

9. **Advance Integrated Operational Research**
   Support targeted research on key operational questions, including:
   - Detection probabilities at low densities, especially for stoats.
   - Efficiency of scat dogs across different environments.
   - Proof of Absence methodologies.
   - Integration of dogs with drones and cameras for dynamic search models.
   - Development of operational metrics to inform adaptive management and deployment decisions.

12. **Improve the Strategic Deployment of Dogs**
    Develop guidelines for phasing dog deployment across all stages of elimination programmes—from initial knockdown through ongoing surveillance—while managing workload, handler fatigue and canine welfare. Strategically differentiate roles for WACA dogs, conservation dogs, scat dogs and hunting dogs based on target species, habitat and operational context.

13. **Elevate Public and Institutional Profile of Detector Dogs**
    Actively promote the role of detector dogs as essential, frontline conservation tools—not as supplementary or last-resort solutions. Increase visibility of their value among funders, decision-makers, the public and partner agencies.

14. **Strengthen Social Licence through Community Engagement**
    Build and maintain strong community relationships through transparent communications, clear operational policies and proactive landowner engagement. Address public concerns around safety, access, insurance and animal welfare to foster sustained social licence and ongoing community support.

15. **Proactively Manage Health, Safety and Insurance Risks**
    Ensure operational risks are mitigated through comprehensive health and safety protocols, handler training for high-risk terrain, adequate dog insurance policies and clear guidelines for safe operations across all environments.

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Appendix 1 – List of participants

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Oliver Hopwood	Predator Free Whangarei
Chris Giblin	Tū Mai Taonga
Conor Downes	PF Te Kinga
Mirrium Ritchie	Canine Conservation
Nick Heslop	Towards Predator Free Taranaki
Frank Lepera	Te Korowai o Waiheke
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Zane Eramiha	Korehāhā Whakahau
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