FULL INCIDENT INVESTIGATION
SUBJECT TO LEGAL PRIVILEGE

1. PARTICULARS OF INCIDENT / NEAR MISS

Title of Incident: ICAM 1187943 Whanganui River Boat Incident	Risk Manager Incident No. 1187943
Reporting Line: Operations	
Accountable Manager: [redacted]	Safety Plan No. (Whanganui Vessels 7877)

Date of Incident 18/11/2020	Time: 10am (approx.)	Location Whanganui River, Pipiriki

2. THE INJURED PERSON

Name: The Kayaker - [redacted]	Designation: External

3. OVERVIEW OF INVESTIGATION

Investigation Team Leader: Name:	Designation
[redacted]	Pou Tairangahau
Other Investigation Team Members:	
[redacted]	Regional Health and Safety Advisor
[redacted]	Ranger - Taupo Fishery
[redacted]	Senior Visitor Advisor

People Interviewed. Name:	Designation
[redacted] (DOC-6515242)	[redacted]
[redacted] (DOC6515250)	[redacted]
[redacted] (DOC6517082)	[redacted]
[redacted] (DOC6517281)	[redacted]
[redacted] (DOC6517352)	[redacted]
[redacted] (DOC6571968)	[redacted]
[redacted] (DOC6517409)	[redacted]
[redacted] (DOC6605953)	[redacted]
[redacted] (DOC6605954)	[redacted]
[redacted] (DOC6517499)	[redacted] y
[redacted] (DOC6517453)	[redacted]
[redacted] (DOC6614113)	[redacted]
[redacted] (DOC6613451)	[redacted]

[redacted] - [redacted] (DOC6605955)	Freedom Kayak Hire (unguided)
[redacted] (DOC6514558)	Kayaker
[redacted] (DOC6605967)	WSI DOC jetboat expert

Documents reviewed:

- Vessel Operating Plan - Wawahia DOCDM 1505643
- Risk Manager Whanganui vessels Safety Plan #7877 - DOCCM-6572274
- DOC Boat Operator Industry Specific Certificate for Skipper - DOC-3231337
- DOC Vessel Database - DOC-5674386
- DOC Licenced Boat Operator Database DOC-5674275
- Boat Operator Certification SOP - DOCDM-346005
- NZ Certificate of Survey for vessel Wawahia - DOC-6572438
- Vessel logbook for Wawahia - photocopies provided DOCCM-6572026
- Vessel logbook for Wawahia, Paparoa & Te Tiakihanga A Tane - photocopies provided DOCCM 6572058
- Point of impact map, WB - DOC-6572543
- Annual Status Report, CNI Region, July 2020, DOC-6381086
- Vessel Operations - Annual Status Summary Report 2020, DOC-6460793
- Wawahia MT survey report 26Nov19 - DOC-6238893
- Whanganui Chronicle 4 March 2010 - "*New rules to control Whanganui river hoons*" article by John Maslin. DOCCM-6572105
- Whanganui Journey Safety Review by Stu Allan, Active Voice, October 2019. DOCCM-6572218
- Maritime Rules, Part 82: Commercial Jet Boat Operations - River, MNZ Consolidation, 15 December 2012, ISBN 978-0-478-39016-2. DOC-6572294
- Maritime NZ Safety Updates DOC-6572470
- Police photographs DOC-6514949
- Facebook photos and blog DOC-6583850
- Email from [redacted] to [redacted] DOC-6572421
- Whanganui District Incident Reporting forms - DOCCM - 6572277
- Invoices for work done to DOC jetboats - DOCCM-6572318
- DOC Receipt for Whanganui Journey hut bookings - DOCCM-6572284
- JSA/Toolbox talk - DOC-6572087, DOC-6572088 & DOC-6572089
- DOC safety alert DOC-6512847
- ICAM team photos DOC-6592497
- In reach data DOC-6592632
- Media release DOC-6592657
- Whanganui River flow DOC-6592699
- Concessionaire document DOC-6592756
- Fleet Manager email DOC-6593732
- Maritime NZ Act 1994 Legislation and Regulations

Synopsis:

The Whanganui River Journey is a Great Walk that is open from October to April each year to kayakers and canoeists who wish to book any of the 11 DOC campsites and 2 huts along the river. Visitors can book their accommodation through DOC s booking system for either a 5-day or 3-day kayak on the Whanganui River. DOC does not rent out kayaks and therefore the visitors are required to hire from a concessionaire either as guided or unguided visitors for the journey. There are several different recreational vessel users on the river which are not regulated through the department and therefore managing numbers on the river can be problematic especially with the number of visitors increasing.

The Whanganui River Entity Te Awa Tupua was part of a recent treaty settlement and is now managed by iwi. DOC s only jurisdiction on the Great Walk Journey includes the campsites and visitor assets. The waterway is therefore managed by the regional authority in terms of boat safety and local iwi in terms of Te Awa Tupua. DOC still hold a responsibility to ensure the safety of its staff and visitors on the river as PCBU.

The Pipiriki Office is located remotely on the Whanganui River and was created as part of the formal creation of the Whanganui National Park (1986) as a central hub for Operations at the request of iwi. DOC is the last remaining government agency on the upper river and the community relies heavily on the department for support and employment. The local community on the river has an expectation that DOC has obligations beyond conservation to support the whole river. There are two locations upstream of Pipiriki where access can be obtained to the river at Taumarunui and Whakahoro. This covers over 290km which makes the river an important transportation corridor between these smaller communities. The catchment area for the Whanganui River is significant (761,000 ha) and the river is prone to high rainfall and flood events.

The Pipiriki Office is a field office and some of the staff commute from Whanganui which is a 90-minute journey. The current supervisors of the office are located in the Whanganui Office 77km away from Pipiriki. Until March 2020 the Supervisor for Pipiriki was located at Pipiriki, but this role was adjusted and changed to ranger with a loss of supervisor responsibilities.

The work the team was doing on the day of the incident was routine track maintenance at Mangapurua Landing which is a key access point on the river to the Cycle Trails and the Bridge to Nowhere.

4. SEQUENCE OF EVENTS

- March 2010 - National Maritime Bylaws to be rolled out for each waterbody as required. As a result of treaty settlement - Te Awa Tupua – these bylaws for the Whanganui River were put on hold during settlement with decision making transferred to iwi.
- 2012 DOC Restructure, Whanganui Conservation Office was turned back into to a District Office with role changes, reporting structures and a change in resourcing.
- 28 November 2017 - [redacted] issued with a DOC Boat Operator Industry Certificate (ISC) which only authorised the operation of the vessel Paparoa, the sister boat to Wawahia. This was issued after completion of the required ISC Training Workbook and minimum hours, provision of documentation, assessment and recommendation by the Departments Regional Boat Operator Certification Coordinator role. An email with a copy of the ISC attached was sent to the skipper and the Operations Manager, Supervisor Recreation and the CNI Regional Boat Operator Certification Co-ordinator (BOCC).
- 28 Jan 2019 – Vessel operations briefing delivered to Operations Manager (Whanganui) by Health and Safety Advisor, Marine Transport Operator Plan (MTOP).
- 8 April 2019 – Operations Manager advised via email from Health and Safety Advisor that he had been accepted by Maritime NZ as a person responsible for operational decisions under the Department s MTOP for the Whanganui vessels.
- December 2019 - Boat modifications undertaken on the vessels at Pipiriki to replace clear deflectors with solid metal ones which were not able to be seen through by the skippers. There is no clear formal process within DOC to approve modifications from the manufacturer s specs for each boat.
- March 2020 - Role adjustments including loss of supervisor roles occurred prior to the Covid-19 level 4 lockdown. There was no recruitment within the Department for 6 months due to Covid-19 which also contributed to the lack of supervision with no one in the supervision role for the

[redacted] Supervisor role.

- March 2020 - The [redacted] based in Whanganui was given the duty of supervisor to the Pipiriki staff for 6 months from March 2020 during Covid.
- In August 2020 Maritime NZ completed a national audit of DOC vessel operations by taking a sample of vessels. The vessel involved in this incident was not one of the vessels audited. Another Whanganui vessel, the sister boat Paparoa was audited. There were no non-compliances as a result of that and one minor observation around hazardous goods. Prior to the audit, the Health and Safety Advisor (MTOP) and BOCC undertook a paper-based audit of the Paparoa and provided the Operations Manager with the improvements required to prepare for the audit. Prior to the formal audit, staff undertook a pre – audit internal assessment which identified problems with paperwork/administration for the boats at Pipiriki.
- September 2020 - The [redacted] Supervisor started his new role following the recruitment stand down period.
- Boating incident occurs 10am (approx.) Wednesday 18 November 2020.

Full Description of the Incident.

On the morning of Wednesday 18 November 2020, the weather on the day was showery with intermittent heavy rain and sunshine. The kayaker was paddling alone downstream on the Whanganui River Journey towards Pipiriki having left Tīeke Kāinga Hut and marae at approximately 7am that morning. This was his final day of a 3-day journey having started his journey from Whakahoro on Monday 16 November 2020.

For additional context, the kayaker was travelling the length of New Zealand mostly by foot down the Te Araroa trail (3,000km) to raise funds for Heart Kids and he started this journey in Northland on 1 October 2020.

Departmental staff were travelling upstream in a DOC jetboat (the Wawahia) from 9.45am to undertake routine maintenance on the Mangapurua trail when they accidentally struck the kayaker on the river at 10am (approx.).

Two DOC jet boats were on the river 15 minutes apart each containing staff from the Pipiriki Office. The first boat (Te Tiaki Hanga a Tane) started travelling on the river at 9.30am (approx.) and the Wawahia at 9.45am. This was the team's third day travelling on the river undertaking the track maintenance task on Mangapurua Cycle Trail. The first jet boat contained three DOC staff, including the Team Lead, which passed the kayaker on the river. The kayaker stated that the boat was travelling at speed but was not aware if this was a DOC vessel. This is disputed by the skipper in the first boat who stated that they waited for the kayaker to pass through a rapid. This boat continued up to the Mangapurua Landing and the staff commenced work for the day unaware of the incident that was unfolding downstream.

The kayaker stated in his interview that he had travel commitments to meet as part of his fund-raising journey and was looking forward to hot food at the end of his three-day journey down the river. He had left early that morning from Tīeke Kāinga and was travelling downstream alone to disembark at Pipiriki, a journey of approximately 21 kilometres or about 4-6 hours of paddling time in a kayak. The incident occurred approximately two thirds of the way into this final journey leg on his last day at 10am.

The rain started to fall heavily and visibility on the river was poor. The kayaker had forgotten his lifejacket leaving it back at the Tīeke Kāinga Hut and was travelling down the river following the true left bank of the river. He stated that it was not until the first rapid he encountered on the river that day when he became aware that he had left his lifejacket behind at the hut. Maritime Navigation Safety

laws (Rule 91.17) requires that he should have been on the true right-hand side *"ensure that the vessel keeps to the starboard (right) side of the river channel of the river"*. The kayaker was in a blue kayak with a red dry bag and jacket onboard containing his equipment for the trip. The Kayaker was wearing a blue t-shirt, grey shorts and jandals.

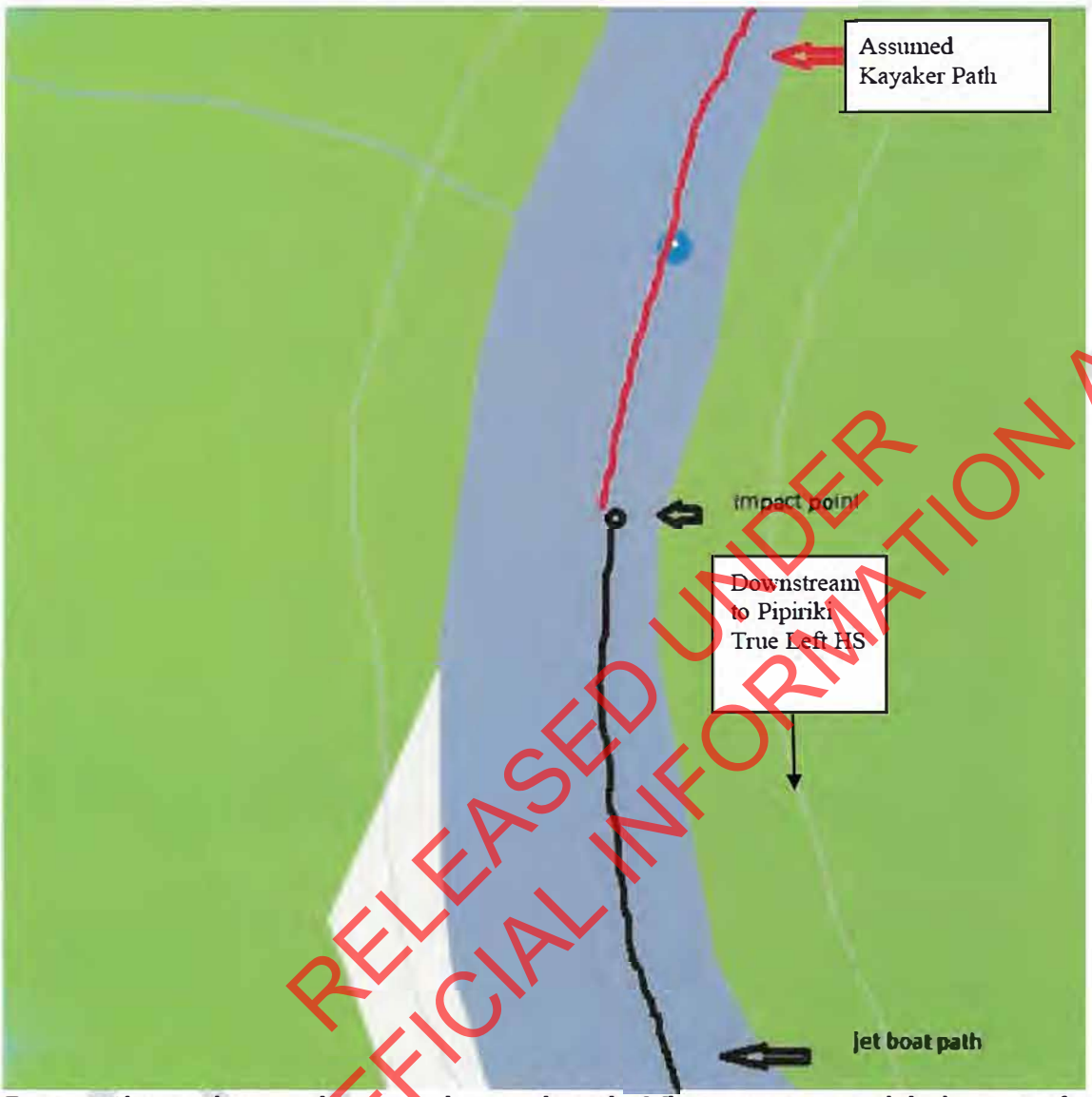

Figure 1: Skipper drawing showing jet boat path on the Whanganui river and the location of impact. The kayak Path is shown in red and is an assumption of the Skipper.

The Kayaker stated that he saw the DOC jet boat (Wawahia) which contained two DOC staff and started to paddle towards it as he thought it had slowed down and wrongly assumed that they were bringing him a spare life jacket. The kayaker stated in his interview that the rain was torrential and disorientating at times. Under the same Maritime Navigation Safety laws, the vessel travelling upstream (jet boat) was required to give way to the vessel travelling downstream (kayak).

At the same time the skipper on the DOC jet boat was travelling upstream and was wearing tinted safety glasses that had fogged up in the heavy rain. The skipper momentarily removed his glasses to clear them with his fingers to improve his visibility on the river and looked down. The DOC non-passenger member sitting next the skipper was hunched over sheltering from the rain. The skipper returned his vision to the helm of the vessel and it was at this point that the skipper and non-passenger member both heard a thump on the starboard (right) side of the jet boat. They turned around to see the kayaker swimming towards his kayak in the river. The skipper stated that he did not expect to see another kayaker on true left-hand side of the river at that location and at that early time of day.

They immediately turned the jet boat around to pick him up out of the water from the rear of the boat and recovered the kayak and paddle. The skipper tried to radio the Whanganui District Office to call for emergency services but was not able to get through due to poor coverage on the boats Radio and Cell Phone. In a panicked state he quickly moved the boat into what may have been a better coverage location but was still unsuccessful. They tried to make the kayaker as comfortable as possible and drove the boat to the ramp at Pipiriki. The DOC non-passenger member drove the tractor up to the Pipiriki Office and spoke with the Recreation Ranger and then managed to contact the Supervisor on the office phone. The kayaker was hurt, in a lot of discomfort, struggling to breathe, bleeding from his mouth and was experiencing blurred vision. The staff took the kayaker from the landing up to the Pipiriki Office and wrapped him blankets. He was later diagnosed as having 6 broken ribs, a broken collarbone, concussion and a broken shoulder.

The ranger in the Whanganui District Office rang 111 and the Police arrived first followed by the ambulance and the rescue helicopter. The kayaker was transferred into the ambulance and then taken by helicopter to Whanganui Hospital. The jet boat and kayak were secured by DOC staff and NZ Police took photos and notified Maritime NZ. The concessionaire came and retrieved the victim's kayak. On the day of the incident the Operations Manager contacted the Regional Health and Safety Advisor who notified Maritime NZ. The Pou Tairangahau headed to Pipiriki to provide support to the Pipiriki Staff. As part of department policy, the Skipper was drug and alcohol tested back in Whanganui which came back clear.

The incident was not witnessed by any other recreational or commercial boat users on the river.

An ICAM investigation team was appointed, and a site visit undertaken at Pipiriki on Wednesday 9 December 2020 and included a jet boat trip to the accident site on the vessel Te Tiaki Hanga a Tane in wet conditions with the river running high. The skipper and non-passenger member were present to answer questions relative to the incident.

Post Incident Response

- 18 November 2020, Jet boat staff recover kayaker and vessel onto boat and drive to find better radio coverage.
- Skipper radios to Whanganui District Office (radio had no reception on the river and no cell phone coverage) but was picked up by another staff member working up the river and relayed to the Supervisor.
- The kayaker was taken up to Pipiriki Office.
- Ranger onsite dialed 111.
- Police arrived at Pipiriki due to 111 call.
- Ambulance arrives.
- Helicopter arrives to pick up kayaker then fly to Whanganui Hospital.
- Pou arrives at Pipiriki.
- Straight after the incident, Maritime NZ notified by DOC and NZ Police 18 November 2020.
- Jet boat secured by DOC and provided to Maritime including the skippers inReach device.
- Skipper drug tested – Whanganui (result negative).
- Operations Manager calls STOP for safety and limited services and work on the river.
- 18 November 2020: Email sent to Operations Manager and Director by the Health and Safety Advisor advising that the skipper s Industry Specific Certificate would be suspended and confirming which skippers could operate which Whanganui vessels.

- 19 November 2020: [redacted] emails the skipper and Operations Manager confirming the suspension of his Industry Specific Certificate until the investigation is completed.
- Site visit by investigation team to Pipiriki and Whanganui Office plus interviews and recommendations 9 and 10 December supervision, comms and modification to jet boat to improve visibility.
- Safety Alert on vessel management emailed 2 December 2020 from H&S team.
- Speeding complaint received post incident December 2020. [redacted] meets with the Pipiriki team post a speeding complaint received on 21 December 2020.
- [redacted] talks to skippers about boat modifications in the New Year 2021.

Following a site visit to the Pipiriki Office on 9 December 2020, the investigation team recommended some immediate actions prior to the outcome of the investigation:

- Boat modification to the seat of Wawahia and Paparoa to improve visibility across the bow of the boat.
- Active Supervision of staff and vessels at Pipiriki.
- Boat operations restricted to essential work only - implemented in December 2020.
- Each vessel to have its own SAT phone due to intermittent radio and cell phone coverage on the river (Completed).
- Safety plans to be read, understood and signed.
- JSA every day and to include weather and river reports including specific hazards on the day.
- Debrief at the start and the end of each week.
- Setting of standards of good practice including of upper and lower river limits (metres/cumecs) and of weather when they can and cannot operate.
- Regular visits and unplanned visits by supervisors to Pipiriki Office to monitor and ensure all safety procedures are being actioned.
- Information on boat/skipper certification and signoff to be displayed in office.
- Daily check in by radio/SAT phone/In reach to the Whanganui District Office.
- Bring in BOCC to assess and recommend skippers for all vessels and for the Health and Safety Advisor (MTOP) to issue new certificates. Best practice of vessel briefings and to confirm vessel crew and non-passenger responsibilities and in good and/or restricted visibility - Planned.
- Oversee VOP to ensure it is up to date.

The majority of these recommendations have been completed and/or have been included as a recommendation and action in this report.

Description of findings

The immediate cause of the Jet Boat collision with the Kayaker was the heavy rain which fogged up the skipper's glasses, causing him to take his eyes off the river and impeding the ability for him to visually sight the kayaker who was on the incorrect left-hand side of the river, without a life jacket and paddling towards the front of the jet boat Wawahia.

The department finds:

The Skipper

The Skipper stated in his interview that the weather on the day was showery with heavy rainfall around Pururoto on the river. On the day of the incident that the team loaded up the gear on the boat, filled in the running sheets and completed a JSA/Toolbox. There were two DOC jet boats on the river that day as the boat he was skippering (Wawahia) was asked to pick up a contractor and team doing the

upgrade works on the Mangapurua track.

The skipper shared there was an assumption by him and others that there would be no kayakers on the river at that location and early time of the day. This assumption may have caused him to be less attentive than normal.

It was the skippers understanding that he could operate and was certified to drive all the boats at Pipiriki. He stated that he was unaware of any safety plans for the boats, or the controls associated with known hazards including the control to stop the vessel during rainfall and poor visibility until it clears. Regardless, the Skippers ISC Workbook shows he has completed training around the Safety Plan with the BOCC and his ISC assessment showed he demonstrated knowledge of this.

The review of the Safety Plan is undertaken as part of the annual training day with the BOCC. The investigation team notes that the review of the safety plan was not considered to be sufficient and is not confident that a full review of the safety plan was undertaken as part of the annual training and/or at a separate meeting. The interview with Skipper s trainer (BOCC) notes that the Skipper was a highly competent jetboat operator on the river and was training others.

The investigation team finds that the Skipper's actions despite his safety/boat training and review of documentation contributed to the incident with the DOC jet boat due to:

- The skipper did not follow the DOC jet boating safety plan and drive to the conditions by stopping the jet boat during heavy rainfall.
- The skipper was driving Wawahia but was only certified to drive Paparoa. The skipper states that he was not aware of this although he had been sent an email with his Industry Specific Certificate which stated this.
- Lack of a full review and familiarisation of the Safety Plan, especially in the event of rainfall and poor visibility.
- The Skipper making a false assumption that there would not be any kayaks on the river at that location and time of the morning, so was probably less alert than they should have been.
- Jetboat skipper failed to give way to the kayaker travelling downstream (although he did not sight him to give way).
- Skipper was correctly located on the true left-hand side of the river as per the Maritime NZ rules.
- Jetboat Skipper failed to keep a proper lookout as required by Maritime Rule 22.5

The Kayaker

The Kayaker shared in his interview that he had forgotten his life jacket having left it at Tieke Kāinga Hut. He had left early (7am) that morning in the rain and was travelling downstream when he thought that he heard the DOC jet boat decelerate assuming that the boat was bringing him a spare life jacket and so the kayaker started to paddle towards the jet boat.

The kayaker stated during his interview that he was operating differently on the river that day because he forgot his life jacket and was following the middle to the true left-hand section of the river at the incident site because the water was slower and safer on the inside of the curve (See Figure 1, pg. 5). As a result, he was located on the wrong side of the river as required by the navigational maritime safety laws. He was not travelling down the true right-hand side river.

The investigation team finds that the kayaker's actions (despite his safety briefing by the concessionaire) contributed to the impact incident with the DOC jet boat due to:

- Lack of life jacket which led him to admittingly operate differently on the river.
- Assumption that the DOC jet boat was bringing him a spare jacket which led him to paddle

towards the jet boat.

- The incorrect location on river (closer to the true left-hand side of the river) as he felt safer travelling this path without his life jacket. Signage on the river at entry points and huts/campsites to stay on the true right-hand side may have prevented this accident from happening.
- Poor visibility due to torrential rainfall and his disorientation on the river.
- Investigation team notes the kayaker [redacted] which may impact on his peripheral vision.
- Dark clothing choice which blended in with the river and no standout fluorescent colours worn, chopper flag or PLB.

The Canoe Hire Company

The canoe hire company ([redacted] holds a concession on the Whanganui River to guide kayaks and canoes for the Whanganui Journey which is marketed by the department as a Great Walk.

According to the canoe hire company the victim was given two safety briefings which included instructions to follow the Maritime NZ guideline to follow the true right-hand side of the bank.

Freedom kayaking (unguided) on the river does not require a concession from DOC however a pre- and post-season meeting is usually held with the concessionaires and kayak companies. At these meetings DOC staff discuss the Maritime NZ river guidelines for guided and unguided river users and attendance at these meetings is encouraged.

The Team Leader - Ranger

The Team Leader for that task on the day was in the first boat that was travelling 15 minutes ahead of the incident jet boat, Wawahia. It is not clear to the investigation team that an adequate JSA/Toolbox discussion happened with the skipper on the day. On reviewing the JSA it was observed that it was inadequate or not detailed enough and did not cover all the necessary hazards on the day. There was no mention or reference to the Safety Plan and its specific controls including driving to the weather conditions.

The Team Leader did not monitor or communicate with staff in the second boat throughout the day on the river. He shared that he was unaware that an incident occurred and stayed working upstream at Mangapurua even though the second jet boat failed to arrive at the job site. The Team leader was not aware of the full incident details or what had occurred until the end of the day when he returned to the Pipiriki base. Communication on the river needs to be improved, and potentially could have prevented this incident if the first boat had alerted the second boat to be on watch for the kayak and of its limited visibility/position on the River. There needs to be a better culture of reporting into each other and the base to support a good safety culture on the river.

The Whanganui River – Te Awa Tupua

Vessels and skippers on the river must comply with the Maritime NZ Navigation Safety Rules. Horizon s Regional Council as governing authority may choose to set specific bylaws for individual rivers. The river currently has no bylaws and therefore there is no legal operating standards or guidelines specific to the Whanganui River other than the Maritime NZ rules. Setting of the Bylaws was delayed due to settlement with iwi and the river entity Te Awa Tupua. The investigation team recommends the Director and Operations Manager initiate an advisory conversation with the governing authority and iwi to encourage the setting of bylaws if they think they are required. Regardless of the absence of bylaws, operators must follow the river safety rules set by Maritime NZ. It is also recommended that DOC advocates for all stakeholders on the river to attend the annual pre- and post-season meeting to discuss the rules and river safety recommendations extending an invitation to Maritime NZ and iwi.

"91.17 River safety Rule, a person in charge of a vessel on a river must-

(a) Ensure that the vessel keeps to the starboard (right) side of the river channel; and

(b) If going upstream, give way to any vessel coming downstream; and

(c) Not operate the vessel unless river and weather condition permit safe operation of the vessel."

Environmental Conditions

Whanganui District operates vessels on the river often in variable weather conditions. River flows can change within this large catchment but were relatively low on the day of the incident with sporadic heavy rainfall. This is a common weather pattern for the river.

There are currently no limited operating limits regarding flow (cumecs or metres) or weather with too much discretion on the Skipper to determine safe operating limits. (See Appendix A which shows weather conditions and flow height)

Interviewees shared that they operate in all weather conditions, but river conditions, higher flow and debris flow are the deciding factors for skippers to consider whether to continue to operate on the river. The staff shared that they view the river prior to reaching the depot and make an assessment at site. Tracking on the weather forecast did not appear to support any decision making on whether to go out on the river.

The investigation team recommends that operating limits (cumecs and flow levels) need to be established on the river conditions and clearly stated in the safety and vessel operating plans and adhered to by all skippers. This would also include a visual check by the Skipper, which is the current practice and escalate the decision to go or not to go out on the river.

The Vessel - Equipment modifications

All jet boats for the District including Wawahia are regularly serviced and were modified approximately 12 months before the incident. The wind deflectors that the boat came with from factory were originally made from clear perspex. These were removed after being damaged and replaced by deflectors made of aluminium to deflect sand from the bow. These performed in a similar manner and were more robust but unfortunately restricted the drivers forward visibility over the front windscreen and bow of the boat as they were not see-through (see Appendix A, photograph 4).

The seat height and windscreens of the jet boats including Wawahia differ between vessels and are not adjustable to suit driver height and visibility. It is evident that Skippers have a blind spot on their immediate starboard bow. Skippers also stated they must lean forward or sometimes stand whilst helming to maintain visibility over the bow of the boat. Skippers spoken to suggested that the seat could be raised, the windscreen lowered, or the wind deflectors removed altogether to help enhance forward visibility.

The investigation team believes that boat modifications that were made had an impact on the skipper's visibility and were not part of the manufacturer's specifications for the boats. Currently the Department's National Fleet Manager who receives inquiries defers any modifications to the Department s independent BOCC (our vessel manager consultant) and there is no formal process to manage vessel modifications. Going forward any vessel that has been modified should have prior approval from the Operations Manager followed by fleet management and that approval must be recorded by a qualified expert, such as a marine engineer/surveyor. Interviewees shared that they defer to BOCC at times when presented with the question on modifications. There needs to be a formal documented process and guideline nationally within the department for boat modifications to be made and it needs to be well documented and shared among teams to understand the requirements for seeking boat modifications.

There is also a need to review whether the vessel design is still fit for purpose given the naturally wet river weather environment. Either explore options for modifications to improve visibility during

rainfall and/or the purchase of a new vessel to ensure the boats can be operated safely on the river in accordance with the rules and the safety plan.

Personal Protective Equipment (PPE)
The PPE worn by the Skipper was not fit for purpose during the rainy weather conditions on the day. The glasses fogged up and needed to be cleared regularly which removed effective visual lookout on the river that day.

The investigation team recommends a review of controls and PPE on the river. Appropriate PPE to be investigated and procured, with staff input, and staff trained on the appropriate use of PPE such as protective eye equipment and this to be included in the safety plan.

Communication
Given the remote location and lack of resourcing, communication was limited and intermittent with no cell phone coverage and only variable radio coverage. It did not support the emergency response on the incident. DOC staff did the best they could on the day, but poor comms meant the skipper could not immediately raise the alarm and contact emergency services and had to relocate the boat on the river to try and connect with the Whanganui District Office.

Interviewees shared that procedures for check in and intentions for the day are not consistently adhered to and it is not clear if the team checked in with administration at the Whanganui District Office on that day. Poor communications would not help support a culture and requirement to regularly check in. The District needs to improve check in procedures for staff on the river and work undertaken off the river within the National Park. For example, the investigation team found it unusual that the Team Lead for the work at the Mangapurua Cycle Trail did not check in to see where the staff were on the Wawahia boat that day and why they failed to turn up on site.

There is also an opportunity for DOC vessel operators on the river to explore ways that the skippers can make contact to advise of anything unusual happening on the river such as early departures, lack of life jacket and wrong location on the river. Where possible our staff and skippers should also be educating kayakers on the river about safety, staying on the true right-hand side of the river and always wearing a life jacket. New signage on the river to support the stay right message is recommended.

Safety Planning
The current Safety Plan outlines safe procedures for DOC staff to follow during poor visibility/heavy rainfall. This includes reducing speed or stopping and posting a look out to assist the skipper. The skipper did not slow or stop as per the required safety procedures and did not appoint a non-passenger member to maintain a lookout during squally rainfall and restricted visibility. The non-passenger was not maintaining a look out because of the weather conditions. A good visual lookout must always be maintained and in all directions especially during restricted visibility/rainfall. Keeping a proper lookout is one of the most important rules of the water. It is crucial for avoiding collisions and for the safety of all vessels and the people on board.

The jet boat should have also been operating at a safe speed appropriate to the conditions so that proper and effective action could be taken to avoid a collision. Vessels are required to proceed at a safe speed and the likelihood of people being in canoes or kayaks always needs to be factored into determining what a safe speed is. The skipper visually checked the state of the river on the day but did not check the weather forecast. There was no consideration by the skipper, or others, as to whether this task could have been delayed until weather conditions improved or the ability to check if the contractor needed to be taken out by boat that day. In the end it was found that the second boat was not needed.

The skipper and the non-passenger separately stated in their interviews that they were not familiar with the Safety Plan or had knowledge of its existence. However, the Safety Plan was current and documented as reviewed by staff. The plan does not outline specific safety guidelines when operating on the river during various river levels, flows or weather conditions. There was no documented evidence of the staff being inducted however there is evidence that they had been taken through the safety plan as part of the annual training sessions with the BOCC. The investigation team is aware that all aspects of the safety plan are discussed at the training session. A separate meeting to work through all aspects and review of the Safety Plan is considered to be best practice within the department. All staff are expected to sign off on this document relevant to the office work.

Interviewees shared that there is a trip/intentions report 'check in and out procedures with the administration team at the Whanganui Office, for staff to call in on arrival and departure at their destination. This is also a requirement of the Vessel Operating Plan (VOP). Training, reporting and monitoring should be occurring for this. These procedures are not always followed by staff and it is not clear that that this occurred on the morning of the accident. Limited access to comms technology would also hinder this reporting process.

Emergency Procedures

The investigation team believes that the procedures outlined in the VOP, titled Emergency Procedures document were not adequate. Jet boats are the primary mode of transportation on the river and yet the investigation team could not find anything within the emergency procedures on jet boat management. There was no evidence that the emergency procedures were referred to, known or followed. However, on the day due to the experience of the team, they managed the incident incredibly well despite the lack of an adequate plan.

Leadership

There has been a change in supervision of staff at Pipiriki and various roles changed or backfilled to help support the team in this remote location.

This has led to inconsistencies and other staff carrying the workload. Existing management is then pushed into undertaking more detailed operational roles rather than a strategic leadership role. Leadership, including supervision, is spread too thinly to appropriately manage staff in back country and remote sites like Pipiriki.

From the interviews it has become apparent that there is also a culture of 'this is the way we have always done it and some behaviours have been tolerated by supervisors, staff or happening out of sight. Examples include the use of correct PPE when supervision is not present and regularly calling in sick/absent from work.

Supervision

Many interviewees stated that there was a lack of regular supervision of staff at Pipiriki and the investigation team support that view. Senior staff often take the place of active supervision and were often looked at for leadership, because of their role in the community and experience, even though it was not their role to be supervisors. The historical legacy issues from the previous senior leadership staff including reporting structures within the District and at Pipiriki has created ongoing staff issues. The investigation team believe that the remote location, travel distance, staff having multiple roles has led to a gradual culture of apathy of staff and a lack of motivation to follow correct processes and systems.

The investigation team believes the Operations Manager, with the right level of resourcing and involvement from the department, needs to develop a strategy to increase operational best practice, clear supervision expectations and capability. This strategy would also need to assess supervision at place, processes, people, roles, policy and systems to ensure safe operations. This would also support a good safety culture which also follows DOC processes.

Resourcing
In general, it appears from the team site visit and investigations that the management of facilities and equipment at Pipiriki is often missing, reactive and underfunded. There is a culture of 'work around when staff do not have communication or access to equipment. The vessels are well serviced and maintained but modifications are not recorded or formally approved. There appears to be a mental model of 'have and have not' between Pipiriki and Whanganui/ wider DOC exists, where the Pipiriki staff feel undervalued and under resourced. This was made evident through the interview process.

The District has several fixed term and temporary staff that get rolled over a period of time into permanent roles without checking if that person can meet all the capabilities and behaviours required by the department. The investigation team cannot find evidence of induction at the time of employment and follow up training applicable to their new roles. The Skipper in this case started on a fixed term and then graduated to a permanent ranger role. There also appears to be no review of competency and capability as staff change into increased responsibility in roles. The Operations Manager noted that there is limited capability around reading, writing and computer skills. This has impacted on the Pipiriki Office to follow process, deliver on procedures, documentation and paperwork including a safety culture.

The organisation needs to consider how to better support the District in the training and delivery of the induction, health and safety and compliance for all activities and change the culture of feeling under resourced from the offices they work in, including technology through to delivery of the work on the ground.

Vessel Management
In addition to the skipper not knowing he was not qualified to operate the Wawahia, personal skipper logbooks were not being used. This is a requirement of holding an ISC skipper ticket. The skipper was aware of the need to keep a record of boating hours when training towards gaining an ISC but was not aware of the need to keep a record of his hours after obtaining an ISC even though an email was sent explaining this to him. There is no evidence provided by other skippers of personal logbooks. Existing vessel logbook records do not appear to be at the required standard. Examples provided and viewed were incomplete and lacked details. This is a common theme across several skippers and vessels at Pipiriki.

The task of the management of vessels sits informally with a ranger at Pipiriki. It was highlighted on more than one occasion that the paperwork was not being adequately maintained. Previous audits highlighted that there were performance issues in the management of the vessels. The district was aware that there were issues, but the staff member continued to have the responsibility of vessel management largely due to the inability to reassign work.

The staff member was not given the role formally via Task Assignment (see DOCCM6071075) especially given the recent change in roles at the Pipiriki Office. There is uncertainty from the team on whether the computer capability existed and whether it matched the ranger's skill set. Better computer support needs to be provided to the ranger either through or a combination of training and another staff member to support delivery of vessel management and paperwork.

Training
Under the Maritime Operator Safety System, the boats are operated under the Maritime Transport Operating Plan (MTOP) and skippers must be familiar with the vessel operating plans, safety plans and continue to be engaged with the ongoing management of these to ensure they are relevant to the operation. Therein lies a challenge for remote locations such as Pipiriki. Is a single annual training day per annum (without any testing required to check learning) enough to keep the skippers engaged with this. In consultation with the BOCC the investigation team makes the following observations:

- Knowledge of the safety controls from the safety plan needs to be tested as part of the annual

training.

- Boats are a critical risk and skippers need to be able to demonstrate competency regularly.
- Training requires extra follow up in annual training and compliance to demonstrate competency. Practical and theory responsibilities of the skipper are different and need to be tested and relevant to the river environment.
- The skipper stated that he was unaware of the control in the safety plan to stop or slow down during rainfall even though they had signed off on the Safety Plan.
- The skipper failed to appoint a second look out (non-passenger) which may have resulted in him stopping the jet boat and giving way to the kayaker which would have avoided the collision.

Workplace/Safety Culture - Unreported incidents

Interviewees shared that there were several unreported incidents in the District. There appears to be a culture of hiding incidents. Examples included trailer accident, speeding incidents, driving without warrants, missing equipment and PPE. The investigation team believes that staff are self-managing incidents and not raising issues due to the lack of active supervision to ensure best practice, combined with fear of reprisal. There is normalised behaviour – 'this is what we always do. It was shared that there was also a lack of capability around Pipiriki staff competently recording of incidents in Risk Manager.

Staff not committed to Safety Processes or compliant with DOC Operating procedures. The investigation team are not confident that staff are fully committed to health and safety processes.

Health and Wellbeing

The investigation team identified the impact of the incident on key individuals during this investigation and spoke with staff during interviews and informally with management, flagging concerns for staff wellbeing overall. The team noted that some individuals were adversely affected by the stress and sense of responsibility, and this was having serious impact on their own health and on their families at home. Further support is recommended to staff above and beyond the EAP service.

Whanganui Operations

The Pipiriki Office is the southern gateway to the Whanganui National Park which was established in 1987. This included a northern depot in Taumarunui, which was set up to service the headwaters of the river, this Depot is the furthest in distance from its Operational Office in the Organisation. There have been multiple restructures, changing work priorities and variable staffing capability over time. The two remote offices are part of legacy in the development of the Whanganui District. It is recommended that a review of the offices is undertaken to explore if they are still current and are in the best location to support district operations including the supervision of staff. This would need to be done in consultation with Te Awa Tupua, the local hapu and iwi.

Other Findings

Some interviewees commented that DOC staff may be impaired while working due to drug use.

5. CAUSATION ANALYSIS		
Causation Factors	Failed or Absent	Description
Absent/failed defences		
Team Leadership	Failed	Lack of monitoring of staff on the day by the Team Lead in the first boat as to the location of the second boat when it did not arrive at Mangapurua Landing.
Situational awareness	Failed	Lack of awareness of the risk, travelling too fast for the conditions, taking eyes off the river ahead
Inadequate Briefing	Failed	Lack of briefing on the day
Escape and Rescue	Failed	No adequate operational comms reception and coverage on the river which made it difficult to get help and communicate with teams.
PPE	Absent	Lack of appropriate PPE causing loss of visibility for skipper and crew/non-passenger.
Individual/team actions		
Error	Failed	Deviated from safety plan (2020) procedures to stop/or slow during rainfall or restricted visibility.
Error	Failed	Vessel management Paperwork not to best practice standard. Not properly completed, missing documentation. Logbooks not kept or missing documentation.
Mistake (Team)	Failed	Team and individuals not signed off to drive other vessels but believed they could
Mistake (Team)	Failed	Teams not working together and looking out for each other to support a safety culture.
Task/environmental conditions		
Inexperience	Failed	Inexperience in vessel compliance (normalisation of behaviours)
Low moral/Job dissatisfaction	Failed	Office under resourced through investment in office buildings/technology
Knowledge	Failed	No knowledge of safety plan
Hostile Environment	Failed	Bad Weather conditions and changing river flow levels
Macho culture	Failed	Carry on regardless of the weather – hard working
Violations are tolerated	Failed	Accepted by all staff
Information overload	Failed	Safety Information or updates not read and reviewed
Misperception of Risk	Failed	Risk of not doing a proper assessment of the weather conditions

Poor system human interface	Failed	Boat modifications impacted on poor visibility for the skipper
Hazard management and plan safely	Failed	Not enough hazard management identification included in JSA/Toolbox
Organisational factors		
Training	Failed	Induction inadequate. Not signed off on all boats, lack of safety plan awareness. Capability to use technology/Risk manager.
Recruitment	Failed	Deficiency. Lack of supervision at Pipiriki.
Organisation structure	Failed	Lack of supervision, hierarchy and resourcing.
Communication	Failed	No communication between the boats on the river around safety and the fact that the second boat did not turn up to undertake the task for that day. Poor comms during emergency due to lack of coverage/reception.
Procedures not used	Failed	Safety Plan - continued driving the vessel in bad weather conditions - controls clearly outlined when visibility impacted but not followed.
Risk Management	Failed	Team did not adequately identify and use organisational tools for hazard management.
Design Adequacy	Failed	Boat modification process unclear and unsupported.
Organisational culture	Failed	Local culture around Health and Safety is limiting best performance.
Organisational learning	Failed	Failure to learn from previous incidents - constantly in a reactive state and do not understand the benefits of lessons learned.
Regulatory Influence	Absent	DOC reliance on other organisations to establish Bylaws such as the regional council, Iwi and Maritime Safety NZ

6. CORRECTIVE ACTIONS				
Causation Factor	Action Title	Description	Name of Person Responsible	Due Date
Absent/failed defences				
Team Leadership	Active supervision of staff and operations at Pipiriki	Review current supervision and placement of staff to deliver safe operations and culture shift. Ensure regular team meetings to discuss safety requirements and actions around boat management and work on and around the river.	[redacted]	In progress 1/6/2021

Situational Awareness	Safety Plan review and staff induction.	Whanganui operational safety plans for Pipiriki operations to be reviewed for content and with the whole team and documented in Risk Manager as a note of who has been inducted. Provide best practice brief on vessel safety to confirm vessel passenger/non-passenger/crew responsibilities and in good and/or restricted visibility.	[redacted]	In progress 1/6/2021
Inadequate briefing	JSA/Toolbox Capability refresh	JSA/Toolbox refresh demonstrating best practice for all Whanganui staff. Refresh to undertake each boat trip. Include weather and river conditions operational limits.	[redacted]	In progress 1/6/2021
PPE	PPE Review and training use of PPE	PPE review and training of the safety equipment including eye protection, to review the controls and appropriate PPE for the weather conditions.	[redacted]	In progress 1/6/2021
Escape and Rescue	Revise emergency procedures	Review and revise emergency procedures in the VOP and the Safety Plan.	[redacted]/All of District	In progress 1/6/2021
Individual/Team Actions				
Mistake	Vessel certificated displayed on office wall	Information on boat/ skipper certification and signoff to be displayed in the Pipiriki office.	[redacted]	1/6/2021
	Vessel Certificates	Health and Safety advisor to sign off skippers for all	[redacted]	In progress 1/7/2021

		vessels and issue new certificates.		
Error	Vessel management – allocation of responsibilities	Vessel compliance and documentation is not up to standard. The District is to undertake monthly checks on the documentation and report to Operations Manager. Task assignment is to be provided to staff and reviewed as part of the MOR process to ensure people are complying with all vessel management requirements. District to provide additional staff to support vessel management documentation. Investigation team understands there is a plan in place with [redacted] and [redacted] to manage this.	[redacted]	In progress 1/6/2021
Task/Environmental Conditions				
Weather	Create operating limits for weather and river flow	Create controls for VOP and safety plan which including creation of upper and lower river limits (metres/cumecs) of weather when they can and cannot operate and include weather condition assessment. Socialise limits with iwi, stakeholders and concessionaires operating on the river to allow them to meet our best practice standards.	[redacted]	1/7/2021
Time shortage	Workload Pressures	Operations Director to triage National	Damian Coutts	1/7/2021

		office workload on Whanganui district to provide necessary space to address issues.		
Organisational Factors				
Procedures not used	Review Whanganui Boat Trip Plans/intentions	All jet boat operations require a trip plan and regular trip reports/check in to DOC base of Operations. Staff to refresh and review Whanganui Office reporting procedures.	[redacted]	1/06/2021
Regulatory Influence	Meeting on River Bylaws	Four factors: 1. Set standards for vessel operations on the river. 2. Work with iwi (Te Awa Tupua) to set standards and limits for operations on the river. 3. Need for Bylaw standards on the river authority (WMRC/Iwi) 4. Multiple users/stakeholders/concessionaire consultation	[redacted]	1/11/2021
Organisational Culture	Review Operations and functions at field offices	Director to review options in the management of the Whanganui, Pipiriki and Taumarunui Office.	Damian Coutts	1/8/2021
Organisational Culture	Review fixed term staff now permanent	Confirm that all staff in the last 5 years who have changed from fixed term/temporary to permanent roles have successfully completed induction and taken through all relevant health and	[redacted]	1/11/2021

		safety plans for their role. Include additional skills training if staff require it.		
Organisational Culture	Explore new operation assurance role around training, induction and health and safety	New Operational Assurance role focussed on training support/best practice/monitoring to support high quality delivery of staff induction, health and safety for the District Operations Manager and Supervisors.	Organisational Development Group [redacted]	1/12/2021
	Stakeholder engagement Safety Marketing messages	Using the DOC Visitor safety team. Review the safety messaging on the DOC website and in consultation with Te Awa Tupua iwi expectations especially around river surface activities. Advice to stakeholder to include vessel operations recommendations such as operational river levels and flows. Explore ways to make the visitor experience safer through recommendations to concessionaires and on the DOC website including use of PLB s, bright chopper flags on the kayaks/canoes use of bright coloured kayaks, warm clothing, fluorescent paddles, life jackets on the river. No kayaking at night. Check weather conditions. Avoid alcohol.	Damian Coutts supported by Visitor Safety and Marketing	1/8/2021 In progress

Organisational Culture	Strategy to improve workplace culture on team performance for the District	Create a strategy to unify district and breakdown silos and create a unified cross functional district with a focus on team performance, compliance and delivery.	[redacted]	1/10/2021
Organisational Culture		Resource to be provided to Operation Manager in development of this strategy to support workplace culture change. Whanganui requires additional ongoing resources whilst the district is resetting. This could be administration support. Resource to be freed up so DLT can supervise and lead.	Damian Coutts	1/10/2021
Organisational Culture	Debrief and support to staff health and wellbeing	Debrief of all staff impacted by the incident and where necessary extended to family, independent crisis management professional/counsellor. Debrief by [redacted] followed by support by the organisation. More than EAP.	[redacted] supported by [redacted] Health and Safety Team	1/12/2021
Visitor Safety	Visitor Safety – install signage	Install signage at entry and exit points on the river/campsites/huts /boat ramps to stay on the true right-hand side of the river kayaking downstream, (true left-hand side of the river going upstream). All	[redacted]	1/9/2021

		powered vessels are required to give way to non-motorised vessels.		
Visitor Safety	Implementation of safety audit recommendations 2019	In 2018 there were a number of issues identified around visitor safety on the river. A report was commissioned and recommendations made (Stu Allen 2019 DOC-6306488) . Make sure these recommendations are captured and integrated into the management of Whanganui Journey going forward.	Damian Coutts	In progress 1/7/2021
Visitor Safety	Concessionaire/ Stakeholder Meeting	At the pre and post concessionaire meeting for the Whanganui River Journey reinforce safety messaging around always wear your life jacket/bright colours/stay right/share river and move away from Jet Boats/Swimming Ability/more than a gentle float down the river. Consider inviting Iwi and Maritime NZ to these meetings.	[redacted]	Ongoing Annual pre and post concessionaire/stakeholder meeting April and September each year.
Regulatory Influence	River bylaws to be considered	DOC to consult with Whanganui Manawatu Regional Council and Iwi to see if the establishment of river bylaws and guidelines would help and support safety on the river	Damian Coutts	1/10/2021
	KPI set in MOR s for Vessel Management and Accountability	Ensure regular MOR are occurring. There is a need for a practice note and/or	[redacted] HR	1/7/2021

		dedicated section in staff MOR that drive vessels and/or are responsible for vessel management on the annual safety plan review, logbooks, JSA/Toolkit, VOC, VOP etc. See DOCCM 6071075 All of DOC. Delegated authority to the supervisor to ensure compliance of vessel operation of the district.		
Procedure unclear	Vessel Modification Procedures	Procedures for vessel modification to be established socialised and monitored including all modifications assessed prior to the pre-approval process. Advisory to all Operations Managers to ensure any current modifications not pre-assessed are within survey specifications.	[redacted]	1/9/2021 In Progress
Training	Training Refresher	Recommend annual training day includes safety plan operating refresher and review. Consider ways to continually keep staff engaged on vessel competency and training. Consult and create a revised boat training plan. Need to demonstrate that skippers and crew fully understand responsibilities and controls in the different operating environments.	[redacted]	1/12/2021
Training	Operational	Operational and	[redacted]	1/12/2021

	Development	leadership office training for leaders/supervisors		
	Staff Performance	Prioritise HR support for Whanganui Office and Operations around staff performance and delivery.	HR	In progress 1/6/2021
Design Adequacy/ Asset management	Equipment	Immediate review of the boat(s) that have had modifications by an expert, including Wawahia. For compliance and visibility assessment. Vessel suitability – Whanganui District and Fleet run a process to test operational suitability of the boats.	[redacted]	1/7/2021
Procedures not used	Incident reporting	Staff to be refreshed on the importance of incident reporting, why and how to use Risk Manager and App.	[redacted]	In progress 1/7/2021
		In consultation with iwi explore the development of a visitor safety plan for the River in the management of visitors on the river. This plan could explore planning around operational limits on the river, weather events. Maritime NZ rules with DOC in an advisory role.	[redacted]	1/11/2021
	Operational Excellence and Monitoring	The Department to implement: Random Drug testing % across the Organisation at all levels (consistency, and industry best practise).	[redacted]	1/12/2021

		Establish Operational Evaluation Team - random checks to maintain pressure on the Organisation and monitor; ensure operating to standard and create best practise.		

7. DESCRIBE THE THINGS THAT ARE WORKING WELL

- Rangers have great work ethic when supervised and supported.
- Skipper training was up to date.
- Emergency response as a District was thorough and commended by local NZ Police.
- Health and Safety Monday meeting with the District implemented by the current Operations Manager.
- Incident response highlighted strong leadership and team unity to respond.
- Operations Manager and DLT committed to bring change.
- Staff are highly committed to Whanganui District s success and are willing to go above and beyond to get the job done.
- Proactive involvement on the delivery on the safety tasks for the Whanganui River Journey.
- The District is already working to make improvements around safety and progression on many of the actions identified above.

8. CONCLUSION

The incident that occurred on the Whanganui River/Awa between the DOC Jet boat and the Kayaker, has provided a sizeable review into the deeper issues and complexities of the Whanganui Operations District as a whole. This investigation has also highlighted organisational deficiencies and opportunities to improve our operational excellence.

Multiple Issues were identified through the investigation process that were connected to the incident including:

- Lack of Safety planning and risk management incident reporting
- Lack of awareness, training and capability limitations
- Span and control of leadership
- Increasing workloads, work prioritisation, resourcing of staff roles
- IT, communication and support services in remote locations
- Health and safety procedures not given priority
- Appropriate PPE for the work environment
- Historical investigation requesting a health check on the District in 2019 which is yet to happen.

This has all lead to a negative culture that has been allowed, probably unknowingly, to flourish and perpetuate to the point where some staff have a negative and resentful attitude with a lack of teamwork and respect, often operating in reactive mode and self-assignment of tasks. Additionally, the investigation team retain the view that incidents were already occurring, likely unreported and it was

only a matter of time before a serious incident could happen again.

Despite this, the investigation team acknowledges that current leadership was in train to address the changes necessary, however scale of the task and depth of issues, meant that they could not address all the issues required.

The Whanganui District is a dynamic environment with strong community relationships. The geographical spread of the District with a river running through it has added to its complexities from the Te Awa Tupua Settlement and the increasing workflow, all further hampering Whanganui s ability to navigate and operate effectively.

There is a strong will amongst staff to get the District operating successfully. Most staff have a 'hard working - can do' attitude which is evident.

This near fatal incident has provided a spotlight for the department to investigate the District and the Organisation. It is a necessity to provide additional resourcing to support Whanganui Leadership to implement the necessary changes to the District. Beyond this, the Organisation has improvements that must occur.

Going forward the department will need to resource the District differently to support leadership to address issues outside of the core workload including iwi settlement and new conservation work.

The department should explore if the current Whanganui District team make up and operating locations (Pipiriki/Taumarunui) are suitable to take the District into the future.

Management will need to lead this and involve staff at all levels to ensure acceptance to the recommended changes required to achieve success for the District.

Because of the volume of findings and recommendations allocated to the Operations Manager and Director for Whanganui District, it is important to revisit the accountable managers assigned to deliver on the recommendations in this report and to provide the additional support that is required.

Following a site visit and interviews by the investigation team in December 2020 immediate recommendations were called largely around the functions at the Pipiriki field office and the delivery of some immediate actions to remedy some of the safety aspects.

The investigation team strongly recommends that the situation in Whanganui warrants a full stop for safety to be called now. This is a result of the investigation findings that highlighted the significant volume of critical issues specifically in Pipiriki and Whanganui Operations, which at any time could lead to another serious incident.

9. REVIEW COMPLETED BY SAFETY & WELLBEING TEAM

Enter the name of the person in the Health & Safety Team who reviewed the investigation report:

Name: [redacted] Date reviewed: 10/03/21

10. SIGNATURES OF INVESTIGATION TEAM

Name: [redacted] Signature: [redacted] Date: 1/04/2021

Name: [redacted] Signature: _____ Date: 1/4/2021

Name: [redacted] Signature [redacted] ate: 1/4/2021

Name: [redacted] Signature: [redacted] Date: 1/04/2021

Date sent to Director and Manager: 1 April 2021

11. DIRECTOR ANALYSIS

The report is comprehensive and traverse's multiple issues. It is clear from the report that the incident with the jetboat was not isolated and reflects a broader set of systemic issues at the site. The report also suggests that these are long standing. These include the culture at the Pipiriki site, the capability of rangers to operate safely and in accordance with DOC systems, resourcing given the difficult geography, the ability of management to have appropriate oversight (given the other issues) and overall controls around our boat use. These issues are multifaceted, and none are a quick fix. A body of work is clearly going to be required over a prolonged period in order to have confidence that all issues have been attended to.

Because the recommendations/findings are so numerous, I have attempted to focus on the systemic issues, so that management attention can be focussed on the areas of greatest impact. My summary is as follows:

Culture: Essentially the report describes a culture of normalising the way they currently work – i.e. it is okay not to follow the DOC processes (particularly around JSA/Toolbox talks, and team leadership). We need to think about how to reset this. Supervisor/management present 'daily' will be key to reset the behaviour and to observe / 'call-out' the examples of this as they occur in real time.

Capability: There are lots of references to capability in the report, ranging from capability to do the tasks assigned, through to need for greater hands-on training. But I also sense there is a mix of capability, performance and behaviour all mixed in here. In terms of actions, again I think we need to create a way to get more hands-on supervision to triage this – i.e. work out where the gaps are, do training if that is the solution, and if people are in the wrong roles/ or not capable of performing given tasks to the appropriate standard, work that out fast. This requires supervisor/manager time, attention, and focus. The other critical issue here is around team leadership for work crews deployed to do work when the supervisor is not present (it is clear from the report that team leaders have been assigned to this work but are not actively undertaking this role in the way intended). As part of the 2020 structure change in the district a D band 'team lead' role was created in Pipiriki, but clearly the 'team lead' approach is not working and will need specific improvement focus.

Management/Supervision: I think the report traverses a series of outcomes linked to supervision/management and team leadership, which date back multiple years, but also speak to the 2020 changes. I think we need to be clear here that a supervision structure of three is not uncommon for a FTE compliment this size (also noting the D band team lead role in Pipiriki), the issue is that the amount of work required means it is probably not fair to expect that three supervisors will be able to make progress quickly enough, given the remoteness of the teams. We may also need to assess whether the Pipiriki D band (team leader) role is working as intended. This probably means reviewing all aspects of the way we deliver day to day supervision for staff (onsite). In the short term, the only practical option will be to temporarily suspend operations at both Pipiriki and Taumaranui and require staff at those sites to daily report into adjoining main offices (as it is not possible to relocate the

supervisors to the site). For Taumaranui this might practically mean staff reporting in to Tongariro, with Pipiriki staff reporting into Whanganui. This will temporarily create a commuting issue for staff which would need to be supported by the Department.

Resourcing: A key theme emerging from the report is that the small number of staff are spread too thin on too many jobs because of the complexity of geography. There are only two options to resolve this, either expanding the team, or resourcing the work differently. Before moving to simply deploy more rangers, I think we need to deploy real energy and focus to test the current delivery approach for this work. To describe this as clearly as possible – a suspension of work programme should be used to test whether we can reduce the work programme that DOC delivers using our ranger workforce/jet boats, and to find strategies to either cut other work, procure it differently (e.g. via contractors) or to undertake it using different methods. For example, we resource Whio monitoring work in the upper Whanganui River catchment via staff travelling 2-3 hours from Whanganui City, when operational teams in Tongariro District are based only 20-30 mins away. We also undertake maintenance on the cycleways using DOC staff travelling daily ex Pipiriki via jetboat, vs procuring this work out of capex using contractors. It may be possible to go through the work programme (bio and rec) and to develop a strategy for delivering the work that reduces pressure on these teams.

My view is that the current compliment of Senior Rangers and Supervisors have too much on their plate to do this (i.e. strategically review the work programme), as well as attend to the safety reset described above. Therefore, I think we should contract additional capacity/capability from outside the district team to support the Operations Manager and Senior Rangers in this assessment. A further advantage of this is to provide some fresh eyes.

Boats: There are numerous process issues with the boats which should be able to remedied relatively quickly. Most significantly, however, I have two concerns:

- Windscreen / seating arrangement – we need to remedy this for sight lines urgently. Both boats with this modification will need to be grounded until alterations can be made.

- Daily check in – a system where boat operators check in with admin, but the team leader for the job does not receive this information is unacceptable. The check in information needs to be provided directly to the team leader for any work. All boat operations should be suspended until a new check in procedure can be developed and tested.

Given that use of boats and remote workers are two of DOC's 8 critical risk areas, I agree with the recommendation that a Director Stop is required for ALL DOC operations at Pipiriki. In accordance with the 'Stop for Safety' process map, an assessment of the scope is required which will inform the development of a plan to restart work safely.

I have a concern that there may be a risk of similar circumstances at our other remote site (Taumaranui) – noting that the senior staff member and former supervisor has been off work for a prolonged period, meaning we have a sole charge ranger at this location, no clear team leader, and at least one previous health and safety incident which points to lack of knowledge/training on safety practices. The 'stop' if only instituted at Pipiriki carries a risk that Taumaranui will not get appropriate management/supervision attention whist the focus shifts to Pipiriki.

Similarly, the driver of the jetboat on the day concerned was not actually a Pipiriki based staff member, but rather is based in Whanganui. It is clear that many of the Whanganui based staff members work up the river alongside colleagues in Pipiriki. Therefore, I am of the view that a Director Stop is required across all three sites (Whanganui, Pipiriki and Taumaranui), meaning the entirety of the Whanganui District.

A Director Stop for Whanganui District will effectively ground all DOC operations in the river trench, in Whanganui town and along this area of coast. By its very nature, this stop will likely need to apply for significant period (due to the scope of work required). As an initial guide, my view is that 90 days creates an indicative frame for this. That should provide sufficient time to scope the work required and form a restart plan. At this point things can be reassessed.

No work will be able to occur during the 'Stop' without direct approval by the Director Operations. Essentially individual work tasks will still be able to occur but will need to be packaged up and authorised during this period (akin to urgent work that occurred during the Level 4 lockdown).

So, my view is the following is required:

Stage 1 – Calling Stop
Immediate Director stop on all work from both Pipiriki and Taumaranui offices, effective from Friday 23 April.

Stage 2 – Immediate Response

- Staff from Pipiriki to report temporarily to Whanganui for day-to-day supervision, including reporting for work daily to that location, effective from Tuesday 27 April.
- Staff from Taumaranui to report temporarily to Tongariro for day-to-day supervision and are to report daily to a supervisor at Whakapapa or Ohakune, effective from Tuesday 27 April.
- Operations Manager to identify urgent work that needs to occur out of both Taumaranui and Pipiriki, so that a strategy for undertaking this can be developed (specifically covering what work will be stopped and what will still need to occur; and then what work will be undertaken by DOC and what might be contracted to a third party)
- Urgent (DOC delivered) work to be authorised during this stop period to have a specific safety plan, written authorisation, and a nominated team leader at a minimum of D band or above
- Urgent (third party delivered) work not to restart until there is a specific safety plan and contract in place
- Operations Manager to describe to Operations Director work that will not be prioritised but that may have national/regional implications, including for NFPL achievement

Resourcing

- Temporarily assign accountability for J4N work to [redacted] so that the Operations Manager can focus on the issues above (effective from Tuesday 27 April).
- Temporarily assign WWO/Relationship work for Whanganui District to [redacted] as above.
- Provide temporary resourcing for a fourth Senior Ranger for the District to critically assess the work programme and delivery approach (to determine whether some parts of the work programme can be delivered in a different way)
- Provide temporary resourcing for additional team leader capacity at D band level.
- Provide temporary resourcing for an administration/support resource to the District to help manage, monitor and track progress with the recommendations. This could take the form of adding to the 'support for Operations Manager' role by increasing this from 0.5 to 1.0 FTE for a fixed period.

Stage 3 – Learn and Act
Director leads Team Process to:

- Learn from the initial 90 day period (immediate response controls)
- Design a plan to restart work safely / transition to a safe BAU operating environment
- Planned tasks are recorded in Risk Manager
- Director verifies the restart plan is complete and recorded

Stage 4 – Restart safely

- Director approves restart
- Work restarts following the safe to start process

Name: Damian Coutts (Director) Signature Date: 04/05.2021

12. MANAGER REFLECTIONS

Name: _____ Signature: _____ Date:
(Manager)

1. Agreement with the 'Director Stop'.

2. The scope is wider than just field base staff. The issues identified cannot be assumed to be isolated to Pipiriki base staff. The influence from Whanganui based staff that come and go through the Pipiriki base as a transition point also contribute to the issues. It is important to recognise the influence of others outside of the immediate team members based at remote sites, and how that contributes to the operating context.

3. The action plan must address all the themes that contributed to the safety context. A series of themes have emerged from the report, so the action plan to resolve the issues must provide a pathway that addresses these key themes.

Themes and Actions

4. Culture Theme. A key component to support the culture of the team is to ensure that foundation systems and methodology are understood by all team members. The fractured understanding amongst the team creates varying behaviour and levels of responsibility.

Action - Initiating an induction program for the team to reset the working culture to include:

- Health & Safety - Short course refresh and or Stop for Safety reset
- JSA – A how to lead JSA workshop
- Understanding and application of Safety plans - Local controls and key plans
- Review Safety Plans that need attention
- Team process - Refresh system
- Risk Manager training
- Mahi Oranga - Refresh system
- P Card - Use and discretionary spend
- Direct supervision of tasks by leaders on tasks – Focus on mentoring staff with supportive and corrective actions to provide confidence within individuals.

Connecting the wider team to the Stop for safety call and breakdown teams (Rec, Bio, Community) to identify pieces that maybe still functioning effectively to unlock a "STOP".

I believe that the Community is running effectively but will need to be included into the wider team

and culture discussions for the reset. Then build a restart plan to enable the outward facing elements of their work to continue with confidence.

District Leadership Team Action. Undertake a DLT reset to build greater understanding of individuals part within the team.

- Wananga of Senior Ranger vs Supervisor and role clarity and how they would complement each other and the work.
- Team Member Index to understand individuals' style of working.
- Create a Vison and Strategy for the District priorities.
- Relationship mapping of key stakeholders within the District and how they will be resourced.

MOR reset for all staff with a support mechanism considered from other Supervisors that support both staff member and leader to reset.

5. Capability Theme

There is a large range of capability in the team with many skills that are taken for granted or assumed to be in place. There is a need to measure both hard and soft skill sets to identify what the skill gaps are. In particular the D & C band rangers require critical assessment. Alongside the assessment there should be a development plan to fast track planning, preparation, and conclusion of packages of work. The B Band rangers will also need to lift their output to reach the expected standard. There will need to be a focus on attitude and application, but it is important to develop their capability alongside those other attributes.

Skills Matrix and Competency Assessment

- Develop a skills matrix that identifies individual skill level against key tasks which is additional to other DOC competencies needing sign off. E.g. delivering JSA to team prior to work, Planning tasks, Delivers Task Assignment.
- Seek support from OD team to fast-track training solutions for each staff member.

Service and maintenance standards of equipment

- Audit and Service equipment - Care and maintenance of equipment to enhance staff understanding and expectations to reach acceptable standard.

Technology use - Short fall in ability to use key electronic equipment

- General computer use
- AMIS & Blue Works – System refresh
- GPS – Expectations of use and Download / Upload of data

Task Assignment

- How to plan and deliver work
- Understand what delivery means

Performance

- Consider appropriate action to address performance and expectations of individual team members.
- Seek support from HR team to identify the sequence of events and actions plan from the analysis of each team member.

Leadership training

- For staff across all levels and must be made relevant to their role.

6. Management/Supervision Theme

The current span of supervision and leadership for ground staff does pose a problem given the large number of staff that require support to raise their base line skills and standard of delivery that will

require additional resource.

Dedicating additional leadership for field based tasked is going to be imperative to find a working pathway to delivery pieces of work.

Sitting within the current team are a number of members that have displayed strong attributes required to take this opportunity to reset the Operational team. Increasing the ratio of leaders to staff is to provide confidence and time for staff to have mentors available more often

Specific initiatives:

- [redacted] - [redacted] - [redacted]
- [redacted] - Release available time to focus additional Supervisor support across the teams to deliver office / workshop-based components
- [redacted] - Create a short-term D Band leadership role that is expected to work closely with the Supervisors to provide on the ground feedback to performance and assurance that all work completed in the field is to an acceptable level.
- Calling stop to Recreation and Biodiversity teams and their work streams to break up small "clique" groupings that have grown to unproductive members.
- [redacted]
- All Pipiriki staff to report into Whanganui for the start of their work.
- Move reporting/supervision of all Taumarunui staff to Tongariro - Currently that is only [redacted] with [redacted]
- [redacted]

7. Resourcing Theme

The complexity of the geographic layout of the District and the work undertaken within it adds to the challenge. We need to do an assessment of all the work streams to identify pieces of work that could be moved out to contractors to complete.

That model has already been agreed to with the concept of the Whanganui Maori National Park. Te Roopu Mana Whenua forum has been asking for this alongside a stronger voice for partnership that has a co-management management approach with Whanganui Iwi. However, to test that approach will require additional resource to undertake a critical assessment of the work, with the biggest impact of work coming from the Biodiversity space then Heritage & Visitor.

Increase the team by 1.0 FTE on a fixed term contract to fill a Principal Ranger role that can complete an overarching review of the work completed in the Whanganui District. Ensure that this would make a critical assessment of all work undertaken and develop pathways to utilise other mechanisms to complete work to reduce pressure on available staff.

Consideration and review of how the team is set up needs some assessment at the completion of the analysis of the district work via a Principal Ranger. This could alter how to resource this District appropriately into the future.

Fast track the new computer hardware rollout for all staff in the Whanganui District. Currently the office has new furniture minus the hardware to support suitable workstation setups.

Arrange meeting with [redacted] on future resources and assets for the District to function effective and safely in their work, this must include but not limited to:

- Jet boat
- Digger
- E bikes

Ensure all staff have been issued personal equipment for use in the field to include but not limited to:

- PLB
- Radio
- InReach
- GPS
- Spare batteries for Radio
- Battery packs – remote recharge for electronic equipment
- Webbing / Day pack / Utility vest

Future proof the field bases with appropriate communication and technology equipment. Independent connectivity for Phone and Internet. Network outage has been ongoing for years with no consistency. Review and provide for an alternative power source and computer hardware.

Mini Hiab feature on one of the flat deck trucks to alleviate the manual handling of large items in remote locations and loading out jet boats.

Build a cross district plan that strategically addresses work streams with neighbouring districts. This should be considered for all work north of Raetihi in consideration with items reviewed via item

Principal Ranger
Increased radio communications coverage throughout the Whanganui National Park by increasing the number of radio repeaters to allow better coverage on the Mangapurua and Kaiwhakauka which has several black spots. InReach coverage can be delayed.

Weather station – Portable or permanent station that can be placed within the National Park to provide better prediction for work planning. This would be in addition to the NIWA forecast from John Coull hut as conditions can differ elsewhere, currently that site is not providing suitable data

Recruit Administration support that can monitor the ongoing progress of recommendations and actions. Knowledge, skills, and attitude of this person are important to get right for matching the desired future culture.

Video conferencing equipment for all meeting rooms at all locations. At a minimum phone conference ability at all sites is a must complete action.

8. Immediate Transition Steps

Assessment of critical works currently known that will need to be addressed:

- Winterise Huts and campsites i.e. shut off gas systems
- AAE expiry and removal of poison from bait stations by 30/04/21 at campsites
- Summer Rangers wrap up
- Whanganui Journey toilet system empty
- Support for contractor conducting work on Mangapurua and Matemateonga tracks.

Available work streams for consideration to support relocation of team members. Importantly these sites will provide the context to use as a mentoring site to undertake work, before extending out to more remote locations.

- Atene skyline track
- Coastal reserves
- Gordan Park
- Waitaha Pa

Unlock Community Teams work

This team will need to be part of the culture reset and building knowledge around safety components that will be useful to their own roles. However for the large part of the outward facing work that the Community team deliver should continue and unlocking that relatively quickly is key minimising any disruption to a team that is working well. The biggest concerns sit with the Rec & Bio teams.

Review of all local Safety Plans - Include workshops and familiarisation of relevant plans for groupings of staff needing intimate knowledge of work.

Vessel Management

- Complete review of all VOP's
- Safety plan review including check in standards for timings of departure and arrival to destinations.
- Develop and test vessel trip plan and Intension
- Team process the alternations to the vessel to resolve changes made to the vessel ie. Seating, windscreens.
- Identify PPE equipment needed for skippers and any vessel use to be included in the Safety plan.
- This would need a minimum of a 2-day session to include all skippers and Supervisors to work through the workshop.

Complete any outstanding Team Process learning and Risk Manager actions

Display boards to advertise key items to note:

- Monthly sign off of Vehicles and Vessels
- Skipper Certifications
- Fire equipment and training
- Mahi Oranga – Monthly Work programs for the District.

Appendix A: Photographs of incident site on the Whanganui River

Photo 1: Photo showing the approach to the river corner on the true left-hand side of the bank during fine weather (January 2021)

Photo 2: The accident site on the river. (Note weather conditions clear in the photos and not representative of the rain on 18 November 2020) Looking downstream. Accident site to left of photo.

Photo 3: River flow and overcast weather on the day of the incident: approximately 1.5 hours after the incident occurred.

Photo 4: Modified metal wind deflectors to replace see through Perspex ones.