

RESPONDING TO INCIDENTS IS NOT ALWAYS ABOUT INCIDENT RESPONSE



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ABSTRACT

Victorian Water Corporations are quite adept and resilient in responding to minor incidents. However in October 2015, North East Water (NEW) had a significant sewer spill incident on the flood plains of the Ovens River which escalated both at a municipal and state level. Managing the response, recovery and expectations of external agencies highlighted new challenges for North East Water.

This paper outlines NEW's response to the broken rising main incident, with a focus on external stakeholder interaction and the long road to recovery.

1.0 INTRODUCTION

Responding to incidents has evolved in Victoria over the past decade. Some change can be attributed to the recommendations and measures implemented from the Royal Commission into the Black Saturday bushfires and some change has resulted through the use of technology and smarter systems within businesses. For Water Corporations, incident response can be as much about the fixing of pipes in the ground as the communication that occurs both internally and externally. This point is no more evident for North East Water than an incident which occurred in Wangaratta in October 2015.

The saying 'Information is the key' is again the case for this incident. External stakeholders in general crave information. External incident response stakeholders want the latest information. Who's in charge? What's the current status? Are there any public safety issues? Is the incident contained? How can they help? These are but a few of the questions that will be requested of the Incident Management Team (IMT). Coordinating that response and giving the broader emergency response stakeholders an understanding of how a Water Corporation responds to any given incident was one of the lessons for North East Water. Other key lessons were to involve the local and municipal stakeholders earlier and understand their requirements and make use of their expertise.

While this paper will make reference to the Corporation's on ground response, this piece will focus on the changing stakeholder environment, the value of technology and the lessons that North East Water can share with the broader Water Industry. These will not be new concepts for many however, hopefully will confirm existing thoughts and knowledge for others.

2.0 DISCUSSION

Day 1: The Incident:

NEW was notified of a potential sewer spill near Wangaratta at 3:30pm. By 3:45pm the local Operations staff confirmed a sewer spill occurring in the flood plains of the Ovens River near Wangaratta and by 4:15pm an IMT was set up and starting to coordinate the response. It was clear early on that this wasn't a typical spill and the initial response was trying to understand the issue and ensuring services.

As the local Operations Team and Manager were busy coordinating the isolation of the sewer main and pump stations and liaising with landholders, it became clear that more people were needed on site.

First Lesson Learnt: Having an IMT Liaison Officer onsite assisted with information flow. A NEW Manager external to the Operations team was nearby and became the Liaison Officer. This team member was able to pass information to the IMT including the scale of the incident and facilitate requests as required. This onsite IMT position would prove invaluable on day two with the facilitation and coordination of onsite external stakeholders.



Figure 1: *First pictures of the incident*

The Liaison Officer coordinated the investigation to confirm if the spill was contained. This determined that the spill occurred within a wetland located on both crown land and private property, was contained and was not discharging to the nearby creek.

Notification to the Environment Protection Authority (EPA) Victoria, North East Catchment Management Authority (NECMA) and Goulburn Murray Water (GMW) were completed by 4:45pm.

At 5:00pm with emergency tabards on the IMT coordinated a situation update (SITREP) meeting which included the Managing Director of North East Water. An outcome of this meeting determined that the incident triggered the highest risk for the Corporation and an additional Crisis Management Team (CMT) was created which coordinated information to the Board, State Government (Melbourne), Department of Land Water and Planning and media. The CMT advised the NEW Board and DELWP in Melbourne of the ongoing incident that afternoon. A SITREP report was completed for the IMT meeting and provided to everyone involved.

At 6:00pm, onsite response reported that the spill could be isolated and sewer services maintained overnight through alternate infrastructure. With this information at hand and no risk of discharge to the environment it was agreed to complete the main repair the following day due to the complex nature of the repair works required.

Day 2: The Repair:

Repairs to the main continued for the whole of day two due to the complexity of the site and break location of the sewer main. It took significant efforts from the local Operations team to complete the repair and restore normal services.

In conjunction with the repairs, the site clean-up occurred and involved the removal of dead carp and debris from the spill site. Additionally, cattle from a paddock affected by the spill were moved to a nearby paddock.

Both EPA and NECMA attended site early, with EPA continuing its presence for the majority of the day. The support received from both EPA and NECMA initially was exceptional and assisted in both the response and recovery works. EPA continued the liaison role throughout the recovery and provided NEW with expert advice which assisted in all aspects of recovery and remediation of the site. The Liaison Officer role was maintained and additional resources including an onsite Health and Safety (H&S) Officer and Environment Officer.

Second Lesson Learnt: Both the H&S Officer and Environment Officer fulfilled vital roles onsite. While the H&S Officer was paramount to ensuring a safe work environment for the repairs, they also fulfilled a vital role in inducting contractors and external stakeholders to the site. The Environment officer was able to use technology in the form of a drone helicopter to take aerial footage of the site which was invaluable in highlighting the magnitude of the spill for the IMT and broader NEW stakeholders.



Figure 2: *Aerial photo of spill site on 20 October 2015*

Figure 2 highlights the impact of the spill including the repair works being coordinated in the coffer dam in the centre of the spill. This aerial footage was able to tell a powerful story for the IMT and more broadly used to communicate the incident to the Board of North East Water. The estimated spill volume was 5.5 ML which is significant from NEW's perspective.

The IMT were active for the entire second day both overseeing the onsite operations, planning for any eventualities and liaising with stakeholders.

A recovery and remediation plan was developed both onsite and within the IMT to ensure the site was returned to a state that meets landowner, stakeholders and North East Water's satisfaction. The primary objective was how to deal with the volume of wastewater. It was agreed that pumping of wastewater from the spill site back into the sewer reticulation was the achievable and appropriate action in the recovery of the site. The pumping commenced after the sewer rising main had been repaired.

This pumping occurred for two weeks and additional pumping was conducted after several rainfall events. This ensured that as much of the spill was removed from site as practicable.

2.1 Stakeholder Engagement and Notification

Unfortunately sewer spills are not new to NEW however, they are typically minor incidents. The ‘usual suspects’ in EPA, NECMA and GMW were notified relatively quickly however, a spill of this significance interested many state and local government agencies not typically associated with sewer spills and all sought further information. A learning from the incident was that wider notification is required in future for different types of sewer spills.

By mid-morning on day two, the local Municipal Emergency Management Committee (MEMC) in Wangaratta had been alerted to the incident through external agencies. This caused a flurry of phone calls and requests for information into the IMT. With key staff who preside in this Committee away, North East Water lost some of the control of information flow and communications. The agencies included Victoria Police, Department of Health and Human Services, DELWP both regionally and based in Melbourne, Department of Economic Development Justice Transport and Roads (DEDJTR), and the local Council.

The Animal Health Officer from DEDJTR advised the Incident Controller of the requirement to move cattle from any affected land and to isolate them as they were required to be identified in their systems. This action was completed onsite.

Third Lesson Learnt: A key to communication success is ensuring the Corporation maintains the messages within incidents to minimise the message being lost in translation through third parties or other Agencies.

Fourth Lesson Learnt: The Control Agency is not always clear. Water Corporations are not referred to as control agencies in Victoria’s Emergency Management Manual. There is an agreement with DELWP that Water Corporation’s assume control of incidents to its infrastructure however this documentation may not be widely circulated. Whilst there was plenty of discussion regarding control agency and incident controller with the members of the MEMC, the result concluded that NEW continue in the role of Incident Controller as the incident, while still ongoing, was contained and the appropriate level of planning and action was occurring.

Fifth Lesson Learnt: The Animal Health Officer from DEDJTR advised North East Water that any cattle that have been in contact with raw sewage are potentially contaminated and need to be identified by DEDJTR as they will be restricted for sale. This is a discussion with the landholder as much as with the Water Corporation. The land that has been affected by raw sewage is potentially contaminated and has to be turned over (ploughed) twice or isolated from cattle for a two year period.

2.2 Recovery

The recovery efforts continued for many months due to the complexity of this spill location. Having an informed remediation and recovery plan was paramount to ensuring both landholders and stakeholders were satisfied with the reinstatement of the site and it was proportionate to the level of impact by the spill.

An extensive sampling and analysis program was completed to assess the level of contamination at the spill site, and to inform remediation requirements. This program included water and soil sampling across the site. The results highlighted that no long term contamination of the site occurred and through the removal of the majority of the wastewater, the pathogens returned to background levels within one month of the spill.

The monitoring of the site and final remediation activities continued sporadically for over six months before the site was ploughed and reseeded with pasture in consultation with the landholders and government agencies. The affected cattle were purchased by NEW due to the extended withholding period prior to sale caused by being in contact with raw sewage.

2.3 The Benefits of Debriefs

There were two debrief sessions conducted for this incident. These included an internal debrief session which occurred during late November 2015 as well as a broader external stakeholder / government agency debrief in mid-December 2015.

The internal debrief identified that the key processes (from Operational and Incident Management perspectives) were followed and worked well. A number of minor lessons and opportunities for improvement were identified and were captured to be tracked via internal management systems. A key discussion topic during the debrief session was related to understanding why the asset failed. A proposed project to review the risks and vulnerabilities of similar pipelines was a key action identified within the debrief session.

The external debrief identified that the incident was well managed by NEW and the level of information was appropriate to the incident scale. It was suggested that NEW include a municipal notification for incidents of this level to ensure that the any stakeholders have the appropriate liaison into the business and the information is accurate and up to date.

3.0 CONCLUSION

Responding to incidents has changed for Water Corporations in Victoria. While the incident may begin with response and repairs, the efforts in recovery are equally important. The need for information and the role of communications continues to grow and is paramount at all levels from local, regional to State. Stakeholders have a thirst for information but they also have valuable resources and expertise that can equally contribute to the incident response and recovery.

North East Water learned invaluable lessons from the incident in Wangaratta which has assisted in improving our emergency response systems and given us a better understanding of the role of each external stakeholder and other government agencies.

This incident highlighted the requirements for isolation and identification of cattle through DEDJTR which was one of a number of key learnings.

Finally, stakeholder relationships have always been valued by NEW and this is again highlighted with the assistance that NEW received from EPA Victoria. Their valued input was key to the successful response and recovery process.

4.0 ACKNOWLEDGEMENTS

- Matthew Leach, Scientific Officer – For your commentary and assistance.
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- Local Wangaratta Operations teams – I have not given their efforts in the repairs or recovery any justice in this paper. They go about their roles without fanfare and their expertise and work ethic in responding to this incident averted a much larger incident.

5.0 GLOSSARY

NEW	North East Water
EPA	Environment Protection Authority Victoria
NECMA	North East Catchment Management Authority
GMW	Goulburn Murray Water
DELWP	Department of Land, Water and Planning
DEDJTR	Department of Economic Development, Justice, Transport and Roads