

MODEL CODE OF MEETING PRACTICE

for local councils in NSW

Guide to webcasting council and committee meetings

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GUIDE TO WEBCASTING COUNCIL AND COMMITTEE MEETINGS

2020

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Introduction

Since 14 December 2019, all councils in NSW have been required to webcast their council and councillor-only committee meetings under the *Model Code of Meeting Practice for Local Councils in NSW* (the Model Meeting Code).

This *Guide to Webcasting Council and Committee Meetings* has been developed by the Office of Local Government (OLG) to provide a snapshot of the webcasting systems councils have implemented to comply with their webcasting obligations.

It has also been developed to assist any councils who may in future wish to change the way they webcast their meetings.

Parts 1 and 2 of this Guide explains why councils are required to webcast their meetings, and provide information about councils' obligations, particularly with respect to risk management and records management.

Part 3 outlines some of the implementation options chosen by councils based the case studies detailed in Part 4 of this Guide.

OLG wishes to thank the NSW Information and Privacy Commission, NSW State Archives and Records, and the councils involved for their invaluable assistance in developing this Guide.

Why are councils required to webcast meetings?

Transparency and accountability are essential prerequisites for good governance, particularly in local government.

As councillors are elected by their communities to make decisions on their behalf, it is important that the community can see this decision-making in action and understand how and why decisions are made.

Webcasting of council meetings is an accessible and cost-effective way for people who are unable to physically attend a council meeting to be able to watch or listen to the decision-making process.

It also promotes greater community confidence in the integrity of meeting practices, and the conduct of their elected representatives.

Other benefits of webcasting include:

- it demonstrates a council's commitment to open and transparent decision-making
- it encourages people at council meetings to be accountable for their actions, behaviour and comments
- the ability to view the meeting at a later time can assist with the accuracy of minutes and other records
- it provides the opportunity for more people to watch a council meeting
- it provides higher levels of transparency and accountability
- it eliminates geographical and time barriers which may prevent people from attending meetings in person
- it reduces or stops the spread of incorrect information
- it allows people to access source material when needed, and
- communities expect their councils to be accessible online and webcasting goes some way towards meeting this expectation.

PART ONE:

STATUTORY FRAMEWORK

Overview

The Model Meeting Code was prescribed on 14 December 2018 under the *Local Government Act 1993*¹ (Local Government Act) and the *Local Government (General) Regulation 2005*² (Local Government Regulation).

Under the Local Government Act³, each council is required to adopt a code of meeting practice, based on the Model Meeting Code, after each ordinary council election.

Each council's code of meeting practice sets out the rules and processes that will govern how the council conducts its meetings for the council's term.

Councils are required under the Local Government Act⁴ to conduct their meetings in compliance with their adopted code.

The Local Government Regulation⁵ has required all councils (including county councils) to webcast their council meetings and councillor-only committee meetings from 14 December 2019.

The Model Code of Meeting Practice⁶ requires that each council's adopted code of meeting practice include supplementary provisions that specify how the council will fulfil its webcasting obligations.

This includes specifying:

- whether meetings will be livestreamed and/or broadcast on the council's website at a later time for on-demand viewing, and
- whether the webcast will be an audio or an audio-visual recording of the meeting.

Under the Model Meeting Code⁷, joint organisations are not required to webcast meetings, but joint organisations that choose to do so must do so in accordance with the Model Meeting Code.

What is a webcast?

The Model Meeting Code⁸ defines a webcast as:

"A video or audio broadcast of a meeting transmitted across the internet either concurrently with the meeting or at a later time".

The IT infrastructure, needs and resources of councils varies considerably across NSW dependant on the council's location and local community.

This definition of webcasting deliberately provides councils with flexibility in how to webcast their meetings to ensure they are able to comply with their statutory obligations to webcast meetings as easily and cost-effectively as possible.

What types of webcast must be provided?

Councils have the option of providing an audio-only webcast or audio-visual webcast of their meetings.

Councils also have the option of broadcasting the webcast on the council's website at a later time for on-demand viewing or providing an additional live-stream so that viewers can watch the meeting in real-time as it happens.

¹ section 360(1)

² clause 232

³ section 360(3)

⁴ section 360(5)

⁵ clause 423(1)

⁶ clause 5.19

⁷ clause 5.19

⁸ page 74

At a minimum, each council must broadcast an audio recording of their council meetings on the council's website as soon as reasonably possible after the meeting.

Under the Model Meeting Code⁹, councils that choose to live-stream their meetings must also retain an audio or audio-visual recording of the webcast on the council's website after the meeting is held.

This is to ensure that people who wish to follow the meeting but cannot view the live-stream at the time the meeting is held, can view or listen to the meeting at a more convenient time. It will also assist people who wish to check the authenticity of minutes taken of council meetings.

What council meetings must be webcast?

Under the Model Meeting Code¹⁰, the following council meetings must be webcast on councils' websites:

- [all council meetings - i.e. ordinary council meetings and extraordinary council meetings, and](#)
- [all meetings of council committees which comprise only of councillors as members - i.e. this does not include committee meetings where council staff or community members are members of the committee.](#)

This reflects the principle that, as democratically-elected officials, councillors should be accountable to the community that elected them for the decisions they make.

Council staff and members of the public who are members of a council committee are not answerable to the public in the same way and therefore are not subject to webcasting requirements.

Are closed meetings webcast?

The Model Meeting Code¹¹ does not require parts of a meeting that have been closed to the public under section 10A of the Local Government Act to be webcast.

More information on what parts of meetings can be closed to the public under section 10A can be found in the OLG's *Guidelines on the Closure of Council and Committee Meetings* at www.olg.nsw.gov.au.

Are public forums webcast?

Public forums are often held separately and before a council meeting to provide the community the opportunity to provide their views or ask questions about an item that will be decided by councillors at the following council meeting.

Community members who wish to speak at a public forum are usually required to apply to the council to do so prior to the public forum.

It is at the discretion of the council which individuals are permitted to address councillors at a public forum.

Public forums are not required to be webcast unless they form part of an actual council meeting¹².

Note: If a council holds its public forum as part of, or during, a council or committee meeting, rather than as a separate meeting before the council or committee meeting, the public forum must be webcast as part of the council or committee meeting¹³.

Where a council webcasts the public forum, it will need to consider and address the privacy, confidentiality, defamation and copyright risks associated with doing so.

⁹ clause 5.22

¹⁰ clause 5.19

¹¹ clause 5.20

¹² clause 4.23

¹³ clause 4.23

What platform must meetings be webcast on?

The Model Meeting Code requires that all council meetings and councillor-only committee meetings be webcast on the council's website.

A 'council's website' can also include any internet platform on which council can add or remove content.

This could include, for example, the council's Facebook page or YouTube channel. Where these are used, a link should be provided to them on the council's website.

Do people need to know they are being webcast?

Webcasting audio content from a council meeting may pick up any words spoken, including content that may not be intended for public broadcast or to be kept on the public record.

This means that any inappropriate comments or statements made by any person at a council meeting may also be recorded and broadcast to a larger audience. This could increase the potential impact of any breaches of privacy or defamation that occurs.

To manage this risk, the *Surveillance Devices Act 2007* requires that advice be provided to members of the public attending meetings that a recording of the meeting will be made.

To address this, the Model Meeting Code requires that the Chairperson of a council meeting or a councillor-only committee meeting make a statement at the start of each meeting informing attendees that the meeting will be webcast.

A person's attendance at the meeting is to be taken by the Chairperson that the person has agreed to be included in any webcast or recording made.

If any person attending the meeting (including members of the public) does not agree to being webcast or recorded, they can choose to leave the meeting.

How long are webcasts published on a council's website for?

The Model Meeting Code¹⁴ requires councils to specify the minimum time period that a webcast recording will be made publicly available for on-demand viewing on a council's website.

NSW State Archives and Records has issued guidance on the retention of webcast recordings on council websites or other streaming platforms¹⁵.

It advises councils to conduct a risk assessment to determine the appropriate retention period. This will be based on how long after a meeting the recordings are being accessed on council's website.

At a minimum this retention period should be 12 months or more.

This is the minimum period required to ensure appropriate community scrutiny of council and committee deliberations and decision making.

NSW State Archives and Records advises councils to include a statement on their websites advising users of how long the webcasts will be available on the council's website.

¹⁴ clause 5.22

¹⁵ see www.records.nsw.gov.au/recordkeeping/webcasting-council-meetings

Can a webcast recording be altered before or after it is published?

A webcast recording can be altered after it is recorded (including livestream webcasts) to remove any content that is not suitable for public broadcast or that may expose the council to a potential legal liability.

Councils have the flexibility to decide how to edit a webcast recording. It can simply be muting the sound in the recording or removing portions of the recording.

The general manager is responsible for deciding if a webcast is to be altered. Before making such a decision, it may be appropriate for the general manager to seek legal advice and to consult with the Chairperson and the other councillors.

Councils should include a statement on their website where the recording can be accessed advising users that the webcast has been altered for legal reasons.

When can webcast recordings be disposed of?

Webcast recordings of council and committee meetings are State records and are covered by the *State Records Act 1998* (State Records Act).

The Model Meeting Code¹⁶ states that recordings must be disposed of in accordance with that Act.

NSW State Records and Archives is responsible for authorising how government bodies dispose of State records under the State Records Act.

The *General retention and disposal authority: local government records (GA39)*,¹⁷ issued by NSW State Records and Archives, identifies webcast recordings as a 'record relating to administrative arrangements for meetings'.

¹⁶ clause 5.22

GA39 requires councils to retain webcast recordings until their 'administrative or reference use ceases', after which they can be disposed of.

Councils are to determine how long webcast recordings may have an administrative or reference use, and therefore must be kept, after they are removed from a council's website.

This includes recordings that may not have been made publicly available (for example, original versions of edited recordings).

Until a recording is destroyed, it is available for access under the *Government Information (Public Access) Act 2009* as it is a record held by council.

NSW State Archives and Records' guidance on the disposal of webcasting recordings can be accessed via its website at www.records.nsw.gov.au/recordkeeping.

What happens if there is no webcast available?

Despite a council's best efforts, there may be unavoidable circumstances where a meeting is not able to be recorded or webcast.

For example, there may be a power outage, internet connectivity issues, equipment malfunctions, weather events or human error that result in a meeting not being successfully recorded or webcast.

If this occurs, councils should advise viewers on their website that the recording or webcast is unavailable for that particular meeting and the reasons why.

Councils should also, as far as practicable, make reasonable efforts to put into place contingency plans to minimise the potential for similar disruptions occurring in the future.

¹⁷ item numbers 13.6.2 and 13.6.6; see www.records.nsw.gov.au

PART TWO:

MANAGING RISKS

What are risks associated with webcasting?

There always has been, and always will be legal, privacy and copyright risks associated with council meetings.

These risks are largely based on the potential that:

- a person's privacy may be breached through the disclosure or use of their personal information
- a person may make defamatory or inappropriate comments about another person, and/or
- a person may breach copyright.

Webcasting does not increase the risk of these events occurring, but it could be seen to increase their impact (both on the people involved and the council) given the larger audience the webcast is broadcast to.

However, webcasting meetings is also likely to motivate both councillors and members of the public who are speaking at council meetings to be on their best behaviour.

Any poor conduct they display will be seen and judged by a wider audience and may impact upon their reputation and standing in the community. It could also be used as evidence in any legal proceedings, code of conduct or OLG investigation that may result.

How can councils reduce risks?

There are a number of actions that councils can take to minimise these risks during council meetings. They include:

- before and during the meeting - limiting the potential that the risk occurs by making attendees aware that such conduct is unacceptable and their actions will be recorded and broadcast to a wider audience, and
- after the meeting - minimising the number of people who may witness the conduct and any resulting legal exposure to the council by limiting the its distribution.

Some specific risk mitigation strategies include:

Before the meeting

- undertaking a privacy impact assessment of the council's webcasting arrangements (see www.ipc.nsw.gov.au for guidance on undertaking privacy impact assessments)
- ensuring the council has addressed the privacy risks associated with webcasting meetings in its Privacy Management Plan (see www.ipc.nsw.gov.au for guidance on preparing privacy management plans)
- reviewing council's insurance policies for appropriate protection against liability for meeting risks
- including on council's website terms and conditions regarding the use of webcasts to ensure they are not used to misrepresent, ridicule or cause detriment to another person or for the purposes of satire or advertising¹⁸
- ensuring any training (including refresher training) given to councillors and staff on council's code of conduct or code of meeting practice includes meeting risks
- [if council has a time delay on its livestream] training for any council staff or third parties responsible for webcasting to

¹⁸ for example, see the NSW Parliament's terms and conditions at www.parliament.nsw.gov.au/Pages/Copyright--Conditions-of-Use.aspx

ensure they can identify and mute any comments that may present a legal risk from the livestream before they are broadcast

- including written disclaimers in meeting agendas, business papers, 'request to speak' application forms, and on notices displayed in relevant meeting rooms advising attendees that:
 - the meeting is being livestreamed and/or recorded for on-demand viewing via council's website and a person's image and/or voice may be broadcast
 - attendance at the meeting is to be taken as consent by a person to their image and/or voice being webcast
 - all speakers should refrain from making any defamatory comments or releasing any personal information about another individual without their consent
 - council accepts no liability for any damage that may result from defamatory comments made by persons attending meetings –all liability will rest with the individual who made the comments, and
 - the meeting must not be recorded by others without the prior written consent of the council in accordance with the council's code of meeting practice¹⁹
- for members of the public who wish to speak at a council meeting:
 - obtaining their consent prior to the meeting to broadcast their voice and/or image in the webcast (individuals who do not consent will be unable to address the meeting)
 - seeking their confirmation prior to the meeting that their address does not include any comments or information that may present a legal risk
- putting procedures in place to minimise the showing of any copyrighted documents (for example, architectural

plans, drawings, photographs, submissions etc.) in the webcast

- the Chairperson or general manager confirming that the webcast has halted when a meeting goes into closed session
- holding any Public Forum prior to a council meeting and ensuring it is not webcast – this will minimise the broadcast of any comments made by members of the public that may present a legal risk.

During the meeting

- the Chairperson making a verbal statement at the start of the meeting advising attendees that:
 - the meeting is being livestreamed and/or recorded for on-demand viewing via council's website and a person's image and/or voice may be broadcast
 - attendance at the meeting is to be taken as consent by a person to their image and/or voice being webcast (time should be allowed by the Chairperson for people to leave the meeting before it starts)
 - all speakers should refrain from making any defamatory comments or releasing any personal information about another individual without their consent
 - council accepts no liability for any damage that may result from defamatory comments made by persons attending meetings –all liability will rest with the individual who made the comments
 - the recording will be available on council's website for [specify time selected by council (minimum 12 months)] and retained as a council record
 - individuals acting in a disorderly manner can be asked by the Chairperson to leave the meeting under the council's code of meeting practice

¹⁹ Local Government Regulation – clause 273; Model Meeting Code - clauses 15.22 – 15.24

- the meeting must not be recorded by others without the prior written consent of the council in accordance with the council's code of meeting practice¹⁹
 - utilising a time delay to the livestream broadcast feed so that any comments that present a legal risk can be muted from the livestream before it is broadcast
 - positioning cameras away from the public gallery and on councillors (where practical) so that members of the public are not in view on the webcast
 - positioning microphones away from the public gallery (where practical) so that the personal conversations of members of the public are not included in the webcast.
- accompanying on-demand recordings with:
 - a written disclaimer limiting liability and
 - instructions that the recording cannot be edited and/or shared in anyway, including on social media, without the prior written consent of the council
 - storing recordings appropriately and securely in council's records management system in accordance with legislative requirements and the Information Protection Principles.

After the meeting

- requiring recordings to be reviewed and authorised for broadcast prior to their availability for on-demand viewing on council's website
- seeking legal advice before publishing any comments that may present a legal risk
- enabling recordings to be edited to remove any comments that may present a legal risk before the recording is made available for on-demand viewing on council's website
- if webcasting via social media, having a:
 - strong social media policy and/or tight social media terms of use to govern how Council's social media can be used by staff and the community in relation to webcasting
 - staff member moderate any comments made in reply to webcast posts on social media in case any comments that present a legal risk are posted by members of the public (at least for the day after the webcast is posted)
- retaining an unedited recording of any webcasts that contain comments that may present a legal risk for future use in possible code of conduct or legal proceedings

Do councillors have legal protection?

Unlike statements made in Parliament, statements made at council or committee meetings are not subject to parliamentary privilege. Councillors and others can therefore be sued in defamation for statements made at meetings.

While a defence of qualified privilege may be available in defamation proceedings brought in relation to statements made at meetings, unlike parliamentary privilege, this does not operate to prevent such proceedings being brought in the first place.

The Local Government Act²⁰, provides councillors, council staff and committee members with protection from personal liability for actions undertaken in good faith for the purpose of executing their role at council.

Some councils' insurance policies may provide coverage to defend defamation proceedings brought in certain circumstances.

However, councillors, committee members and staff should always exercise caution when speaking at meetings to minimise the risk of such proceedings being brought.

²⁰ section 731

PART THREE:

IMPLEMENTATION OPTIONS

There are a range of implementation options available to councils to webcast their meetings and the case studies presented in Part 4 show that NSW councils vary significantly in the approach they take.

The main factors that have influenced the webcasting systems implemented include:

- cost
- geography, and
- meeting locations/venues.

OLG thanks all the councils that responded to our call for case studies for the invaluable information they have provided about their webcasting experiences.

Cost factors

On a practical level, webcasting involves:

- capturing what occurs at council meetings through microphones and/or a video camera/s
- transferring the audio and/or video feed to a computer
- compressing and encoding the audio and/or video files
- uploading audio and/or video files manually to a website, or using a hosting service, and
- making the audio and/or video available on a website designed to host such data.

It can be achieved using a wide variety of equipment and services.

The primary factor which guided how the councils surveyed webcast their meetings was:

- the cost and resources available to the council to invest in webcasting equipment and technology, and
- the skills and experience available to the council to webcast meetings.

Higher-cost webcasting solutions

Of the councils surveyed, metropolitan and regional councils with a larger audience and revenue base chose to provide livestream and on-demand audio-visual webcasts of council meetings.

They mostly do this in two ways:

- the council purchased the necessary equipment and contracts an external provider to attend the meeting, record the webcast and upload and broadcast it on council's website using the provider's hosting service, or
- the council purchased the necessary equipment and records the webcast themselves, hosting the webcast within council's website using purchased streaming software or via a free platform such as Facebook or Youtube.

Additional higher-cost features that have been implemented by some of these councils to maximise their viewer's experience include:

- split screens that provide users with a view of councillors as well as a scrolling screen showing the meeting agenda or the live minutes being taken at the same time
- vision that alternates between a view of councillors and a view of the live minutes being recorded
- providing titles across the screen to advise the viewer when the meeting is adjourned or is in closed session
- itemising the webcast by agenda item so viewers can search for and view specific items of interest
- multiple cameras and/or rotating, tilting and/or zooming cameras that provide different views and angles of the meeting

- display television screens in the meeting venue so that physical attendees can also watch the live webcast
- high quality microphones, and
- microphones that include an electronic voting system for councilors to use when they vote.

The cost of the equipment purchased by surveyed councils who implemented such systems ranged from \$8,800 to \$200,000, depending on the existing equipment already owned by the council, the additional features offered as part of the webcast and the level of service provided by an external provider.

Annual ongoing costs ranged from \$7,000 to \$18,000, and largely resulted from the fees charged by external providers to operate the webcasting service during the meeting and/or livestream the meeting via the provider's external streaming platform.

One council surveyed chose not to purchase any webcasting equipment but rents it on a monthly basis from an external provider.

Most councils also chose to install higher-cost systems in their council chambers only. Council meetings held in other venues use a portable lower-cost webcasting system.

Benefits

Some councils that implemented a higher-cost webcasting system reported experiencing the following benefits from their chosen system:

- audio-visual content is of high quality
- councils can obtain detailed statistics on the number of people watching the webcast, and watching specific agenda items
- high-quality user experience for the community
- it can provide a comprehensive technology management solution for meetings (e.g. PowerPoint, screens, blinds, lighting, sound) rather than just a webcasting solution
- where webcasts are itemized, viewers do not have to navigate through one large recording to find their item of interest

- where projector or television screens are also installed in the meeting venue, the webcasting system can be used in overflow areas so that members of the public not in the council chamber can still hear and view the meeting
- it provides the opportunity to improve hearing assistance in the meeting venue for attendees with hearing difficulties
- for some councils that use an external provider to deliver their webcasting service:
 - contracting a hosting service externally to council's website reduces the bandwidth and data costs associated with webcasting – for some webcasting systems council only pays for bandwidth used, on a pay-per-view basis, and
 - the provider rather than council is responsible for resolving any technical issues that may arise. This has been very useful as most council staff do not have the required expertise. It also ensures council staff present at the meeting are not taken away from their core roles to resolve technical IT issues.

Challenges

Some councils also experienced the following challenges with higher-cost systems:

- the initial financial investment required for higher-cost technology and equipment is substantial
- there is a greater chance that technical issues may occur at the meeting due to the technology involved
- the availability and quality of the webcast depends on a viewer's own technology, including internet speed, the availability of a supporting operating system, web browser, speakers and bandwidth restrictions – factors which are outside of council's control
- for some councils that conduct their own webcasting in-house:
 - more planning and preparation by council staff to set up the webcasting system is required before meetings

- council staff may have to resolve any issues that may arise. If there are no dedicated IT staff present at the meeting for this purpose, this will take other council staff away from their core role and responsibilities at the meeting
- council staff may require additional training to operate webcasting equipment
- for some councils that use an external provider to deliver their webcasting service:
 - the ongoing running costs paid to the external provider can be significant
 - there are few external providers with the required expertise to conduct equipment maintenance, and
 - council has less control over the webcasting process and webpage.

Lower-cost webcasting solutions

Some councils with a smaller population and a smaller revenue base decided that the cost of a higher-quality webcasting system would not equal the benefits that such a service would deliver to the council or the community.

For councils in regional and remote areas in particular, the variability of internet connectivity across their local government area, together with their area's vast distance, greatly diminished the advantages that a higher-cost and higher-quality webcasting system would provide.

Innovative webcasting solutions to meet these challenges, and keep costs as low as possible include:

- a council staff member using a council-owned mobile phone connected to a mobile hotspot to record audio and video of the meeting and livestream it to council's Facebook page or YouTube channel
- using a local community radio station to broadcast an audio recording of the meeting live while the meeting is being held – this also overcomes the need for reliable internet connectivity and viewers can simply use a radio to follow the meeting

- utilising free recording or streaming software provided by SoundCloud, Vimeo, Skype, Facebook or YouTube that can be operated by council staff
- taking audio-only recordings of meetings that are manually uploaded by a staff member to council's website after the meeting
- providing on-demand recordings only (i.e. no livestream)
- storing on-demand recordings on free external sites to reduce bandwidth cost and providing links to these sites on council's website (e.g. YouTube or Facebook), and
- basing the system on the equipment and technology already owned or available to the council to keep start-up costs low.

Some councils have been able to establish their webcasting system for as little as \$20 (utilising \$300 of equipment already owned by council), with no ongoing running costs.

Benefits

These councils advised that the benefits of these types of webcasting systems are:

- they are simple to operate and do not require additional staff or external providers at meetings to operate them
- some lower-cost webcasting systems can be portable and used anywhere there is power and mobile reception or internet connection
- they significantly reduce the up-front investment in equipment and ongoing costs, and
- providing only on-demand viewing allows councils to ensure that no confidential matters, personal information or defamatory remarks are broadcast.

Challenges

However, some of the challenges identified include:

- lower quality broadcast compared to other higher-cost options

- audio-only webcasting does not allow users to read any non-verbal communication at the meeting
- the need for council to manually edit webcast recordings and update anything related to the webcast on council's website in-house
- recording may need to be stopped whenever there is a meeting break or closed session – each meeting can therefore have multiple recording files which can lessen the viewer experience, and
- as the recording is not itemised by agenda item, and there can be multiple recording files, on-demand viewers need to know what was on the agenda for the meeting and then manually scroll through each recording to find the item they are interested in.

Geographic spread and multiple meeting locations

Many councils with multiple population centres hold council meetings outside the council's chambers and in a community venue.

This is an inclusive way, particularly for regional and remote councils with a dispersed community and large land area, to overcome geographical challenges and make it easier for community members to attend council meetings.

To ensure council can still webcast meetings held outside council's chambers, many councils surveyed employ a different webcasting method at these meetings for practical and cost reasons.

For example, some councils with higher-cost audio-visual webcasting systems installed in the council's chambers:

- only provide on-demand audio-visual or audio-only recordings of external meetings (i.e. no livestream), and/or
- use lower-cost portable equipment (e.g. a handy-cam, mobile phone) to record external meetings.

On-demand availability of webcasts

The councils surveyed varied considerably in how soon after a meeting they made on-demand recordings available on council's website based on:

- the technology used to record and stream the meeting
- whether council staff or an external provider was responsible for uploading the content onto council's website, and/or
- any post-editing that occurred to webcasts after they were recorded.

Surveyed councils make their on-demand recordings available to the public either:

- immediately after the meeting
- 1-2 days after the meeting
- after the written minutes are finalised
- one week after the meeting, or
- as soon as practical for the council after the meeting.

Retention of webcasts

The councils surveyed also varied considerably in the length of time on-demand recordings are available for viewing on council's website based on the:

- council's storage ability
- the community's need to be able to access the webcasts at a later date, and/or
- the technology used to record and store the webcast.

Surveyed councils publish their on-demand recordings for either:

- 6 months
- 1 – 7 years
- the previous and/or current financial year
- the council term
- the limit to council's IT storage capacity, or

- an unlimited time period (i.e. on-demand recordings are never removed).

Other advice for councils

The councils surveyed also offered the following advice to councils that are about to establish their webcasting systems:

- have robust procedures and checklists to ensure webcasting goes smoothly
- have back-up/contingency plans for how the meeting will be recorded during outages
- if an external provider is used to conduct webcasting, engage them to also manage and service the equipment used as this will allow for reliable modifications, updates and maintenance
- 'push-to-talk' microphones provide more focus for the speaker and ensure that people are not talking over the top of others
- 'voice-activated' microphones can result in private remarks or conversations that were not intended for public broadcast being shared with other attendees in the meeting venue or on the webcast
- if council's WiFi connection is unreliable, hard-wired/fixed microphones may be more suitable as they are not reliant on an internet connection
- when selecting a streaming platform, consider the bandwidth and platform required against the screen size and resolution
- determine if there is an interest in your community for livestreaming before investing in the necessary equipment and technology
- check the acoustics of the meeting venue to confirm they are suitable
- ensure there is a good audio signal if council is going to rely on recording the audio externally (e.g. via a mobile phone or handycam)

- conduct regular sound and video checks if the webcasting equipment is also used by others to record other meetings, and

- choose the lowest-cost webcasting option if your webcast audience is likely to be small.

Evaluation of webcasting – Wagga Wagga City Council

Wagga Wagga City Council recently evaluated the use of Council's webcasts by the community and council staff, and gained important data on who watches council webcasts, how and when webcasts are being viewed, and the levels of support for webcasting both in the Council and in the community.

While each community and council is unique, the results from Wagga Wagga may potentially assist other councils to decide the most appropriate webcasting system for their community.

Results from the public evaluation of the Wagga Wagga's webcasting system found:

- webcast viewers watched each meeting for an average time of 14 minutes indicating that most viewers watched particular items of interest rather than the full council meeting
- 42.3% of viewers watched the webcast from a desktop computer, 37.5% from a mobile phone and 19.8% from a tablet
- 61.5% of viewers watched the meeting live and 56.5% of live-stream viewers also watched the meeting again on-demand indicating that having a livestream option in addition to on-demand was beneficial for the community
- 56% of viewers were likely to watch the webcast every meeting via livestream and 42% of viewers were likely to watch a meeting webcast every few months
- 56% of respondents would rather watch a live-stream than attend the council meeting in person
- 94% of respondents wanted webcasting to continue, and

- 98.2% of viewers were located in Australia and 38.4% of these viewers were located in the local government area indicating that non-residents were taking opportunity of webcasting to keep abreast of council activity.

Results from a staff evaluation of the webcasting system found:

- 93% of staff wanted webcasting to continue
- 75% of staff respondents had watched a webcast – 50% of these via livestream and 32.3% of these had also watched the meeting again on-demand, and
- 72% of staff viewers watched webcasts to view the discussion and decision on a specific item of business, 38.5% to keep up-to-date with council business and 36% to understand councillor's opinions.

PART FOUR:

CASE STUDIES

The following case studies represent the real-life experience of how a range of different-sized councils in different geographical locations across NSW webcast their meetings.

Local government area population estimates are taken from the Australian Bureau of Statistics²¹ and are current as at 26 February 2020.

OLG wishes to thank the following councils for offering to share their webcasting experiences.

Metropolitan councils

1. Northern Beaches Council
2. Cumberland Council
3. Inner West Council
4. Hornsby Council

Regional councils

1. Queanbeyan-Palerang Regional Council
2. Port Stephens Council
3. Byron Shire Council
4. Cessnock City Council
5. Ballina Shire Council
6. Central Coast Council
7. Wagga Wagga City Council
8. Snowy Valleys Council
9. Shellharbour City Council
10. Eurobodalla Shire Council

Rural and remote councils

1. City of Broken Hill Council
2. Federation Council

²¹ <https://itt.abs.gov.au/itt/r.jsp?databyregion&ref=CTA2> – last updated by the Australian Bureau of Statistics on 12 July 2019

Metro 1: Northern Beaches Council

271,278 residents | 254 km² local government area

Meeting location: Dee Why (council chambers)

Webcasting method	Webcast type: <ul style="list-style-type: none">• Audio-visual Broadcast <ul style="list-style-type: none">• Live stream and on-demand on Council's website• Equipment provided by Council and webcasting undertaken by an external provider
On-demand availability	Recordings published <ul style="list-style-type: none">• Day after the meeting Retained for <ul style="list-style-type: none">• 4 years (aligning with the council term)
Commenced	May 2016 when council was amalgamated (the former Warringah Council used webcasting)
Website reference	Council's website <ul style="list-style-type: none">• https://video.northernbeaches.nsw.gov.au/ (links to Council's video channel) Council's video channel <ul style="list-style-type: none">• https://www.northernbeaches.nsw.gov.au/council/meetings (livestream and on-demand)
Technical details	Equipment <ul style="list-style-type: none">• Networked audio-visual system which includes a network server, 3 cameras and 2 large projector screens in the council chambers• Handycam recorder used to separately record confidential sessions, but these are not broadcast (and used as a contingency plan should webcasting service become unavailable)• 2 internal IT staff attend each meeting to ensure the system runs smoothly and 1 staff member spends 1 day/month for meeting preparation and wrap-up Streaming <ul style="list-style-type: none">• Content streamed to external provider's cloud servers and broadcast from council's website• Broadcast includes a split screen allowing viewers to view councillors and the minutes being typed live
Observations by Council	Benefits experienced <ul style="list-style-type: none">• Council only pays for bandwidth used, on a pay-per-view basis Challenges faced <ul style="list-style-type: none">• Few providers in the metropolitan area with the required expertise to conduct equipment maintenance• Whilst a very useful feature, Council rarely uses the split-screen feature as this reduces the number of councillors visible and more vigilance is necessary to ensure that confidential elements of the minutes are not inadvertently live-streamed Advice for other councils <ul style="list-style-type: none">• Solid preparation, robust procedures and checklists are important to effect smooth webcasting practice• Have contingency plans for events such as outages, particularly with regard to how the meeting will be still be recorded (eg use a handycam or smartphone to record the meeting and then save it council's records system)

Metro 2. Cumberland Council

236,893 residents | 72 km² local government area

Meeting location: Merrylands (council chambers)

Webcasting method	Webcast type <ul style="list-style-type: none">• Audio-visual Broadcast <ul style="list-style-type: none">• Live stream and on-demand on Council's website• Equipment provided by Council and webcasting undertaken by an external provider
On-demand availability	Recordings published <ul style="list-style-type: none">• Day after the meeting Retained for <ul style="list-style-type: none">• 4 years (aligning with the council term)
Commenced	September 2017
Website reference	Council's website <ul style="list-style-type: none">• http://webcast.cumberland.nsw.gov.au/video.php (embedded live-stream and on-demand)
Technical details	Equipment <ul style="list-style-type: none">• Projector screens, display television screens, microphones, speakers and fixed cameras• Audio/microphone equipment hard-wired/directly connected and managed remotely through software on a computer located at the governance/minute taker's desk• Microphone volume settings are operated through a touch panel system that also controls other aspects of the venue (e.g. lighting, blind controls, projector displays) and allow attendees to be heard by both the public gallery and online viewers• Equipment operated by council staff already attending the meeting Streaming <ul style="list-style-type: none">• Streaming performed by an external provider – equipment directly connected to provider's streaming platform and broadcast from council's website• Webcasts are itemised per agenda item by the external provider for on-demand recordings
Costs	Initial installation costs <ul style="list-style-type: none">• \$1,500 for set-up (existing already installed audio-visual system including cameras used) Ongoing running costs <ul style="list-style-type: none">• \$16,000/year to external provider for webcasting service and technical support• Separate external provider is contracted to support all audio-visual equipment
Observations by Council	Benefits experienced <ul style="list-style-type: none">• Robust, regularly maintained system that is easily operated by staff• High quality audio-visual content and vastly improved user experience• Recording itemised by agenda item so users do not have to navigate through one large meeting recording• Reporting available on number of people watching• Electronic voting feature available for councillors when voting on matters• Website hosted and managed by streaming provider Challenges faced <ul style="list-style-type: none">• Lead time associated with any urgent change requests raised with external provider• Council-hosted stream was available immediately after the council meeting, rather than the next day• Reduced control over the webcasting process due to outsourcing Advice for other councils <ul style="list-style-type: none">• Have a back-up recording system that stores information on a local server• Engage an external provider to manage and service equipment under a support agreement as this allows for reliable modifications, updates and maintenance

Metro 3. Inner West Council

198,024 residents | 35 km² local government area

Meeting location: Ashfield (council chambers) and Leichhardt (town hall)

Webcasting method	<p>Webcast type</p> <ul style="list-style-type: none">• Audio-visual for meetings held in council chambers• Audio-only for meetings held elsewhere <p>Broadcast</p> <ul style="list-style-type: none">• Meetings held in council chambers - live stream and on-demand using an embedded YouTube video on Council's website. Equipment provided by Council and operated by an external provider• Meetings held elsewhere – audio recording published on council's website after the meeting
On-demand availability	<p>Recordings published</p> <ul style="list-style-type: none">• Morning after the meeting <p>Retained for</p> <ul style="list-style-type: none">• 4 years
Commenced	December 2016
Website reference	<p>Council's website</p> <ul style="list-style-type: none">• https://www.innerwest.nsw.gov.au/about/the-council/council-meetings/council-meeting-webcasts (embedded live stream and on-demand)
Technical details	<p>Equipment</p> <ul style="list-style-type: none">• Fixed camera in council chambers• Laptop computer• Audio-visual equipment• Equipment operated during the meeting by an external provider <p>Streaming</p> <ul style="list-style-type: none">• Uses free Open Broadcast Software to live-stream meetings to council's website
Costs	<p>Initial installation cost</p> <ul style="list-style-type: none">• \$10,000 to purchase camera, laptop computer and audio equipment <p>Ongoing running costs</p> <ul style="list-style-type: none">• \$14,000/year to an external provider to operate the equipment and resolve any technical issues during meetings
Observations by Council	<p>Benefits experienced</p> <ul style="list-style-type: none">• Ease of set-up• Minimal ongoing costs• Detailed webcasting statistics <p>Challenges faced</p> <ul style="list-style-type: none">• Council staff were being taken away from the core roles at meetings to resolve technical issues so Council decided to contract an external audio-visual technician to operate all equipment and resolve any technical issues that may arise <p>Advice for other councils</p> <ul style="list-style-type: none">• Have the ability to place titles across the webcast for meetings dates, times and when Council has an adjournment or moves into confidential session

Metro 4. Hornsby Shire Council

150,752 residents | 455 km² local government area

Meeting location: Hornsby (council chambers)

Webcasting method	<p>Webcast type</p> <ul style="list-style-type: none"> • Audio-visual livestream • Audio-only on-demand recordings <p>Broadcast</p> <ul style="list-style-type: none"> • Live stream and on-demand via Council's website • Equipment and webcasting provided by an external provider
On-demand availability	<p>Recordings published</p> <ul style="list-style-type: none"> • When minutes are finalised <p>Retained for</p> <ul style="list-style-type: none"> • 12 months
Commenced	July 2018
Website reference	<p>Council's website</p> <ul style="list-style-type: none"> • https://www.hornsby.nsw.gov.au/council/about-council/meetings (links to Council's webcast cloud channel) <p>Council's webcast cloud channel</p> <ul style="list-style-type: none"> • https://hornsby.webcastcloud.tv/ (livestream and on-demand)
Technical details	<p>Equipment</p> <ul style="list-style-type: none"> • Single fixed camera in council chambers • Audio recording and microphone system and sound recording system (already owned by Council but originally purchased for \$16,500) • Equipment operated by Council staff already attending the meeting <p>Streaming</p> <ul style="list-style-type: none"> • Equipment directly connects to external provider who livestreams meetings • In addition, separate audio recordings are recorded to an SD memory card and then manually loaded into Council's records management system and published on Council's website
Costs	<p>Initial installation cost</p> <ul style="list-style-type: none"> • \$9,240 (+\$16,500 for existing equipment purchased in 2011) <p>Ongoing running costs</p> <ul style="list-style-type: none"> • \$11,400/year for webcasting service provided by external provider
Observations by Council	<p>Benefits experienced</p> <ul style="list-style-type: none"> • External provider manages the storage and archiving of the livestream video recordings • External provider is responsible for resolving any technical issues • Reporting available on the number of people viewing the meeting <p>Challenges faced</p> <ul style="list-style-type: none"> • Financial outlay of set-up • Ongoing costs • Livestreaming has increased the risk for technical issues to arise during the meeting. Whilst the external provider is available by phone during the meeting to address technical issues, Council's governance staff have to resolve any issues that arise which takes them away from their core role and responsibilities at the meeting <p>Advice for other councils</p> <ul style="list-style-type: none"> • Technical issues have been experienced so it is important to have a back-up method of recording the meeting (e.g. on mobile phone) • If possible, install whole new system rather than "adding on" to existing equipment

Regional 1. Queanbeyan-Palerang Regional Council

59,959 residents | 5,319 km² local government area

Meeting location: Queanbeyan (council chambers) and Bungendore (council chambers)

Webcasting method	Webcast type <ul style="list-style-type: none">• Audio-visual Broadcast <ul style="list-style-type: none">• Live stream and on-demand via standalone website provided by an external provider• After livestreaming was introduced Council arranged for the local community radio station to broadcast the audio of Council meetings to part of the local government area which experienced poor internet connectivity
On-demand availability	Recordings published <ul style="list-style-type: none">• 1-2 days Retained for <ul style="list-style-type: none">• 4 years
Commenced	October 2016
Website reference	Council's website <ul style="list-style-type: none">• http://webcast.qprc.nsw.gov.au/ (live stream and on-demand)
Technical details	Equipment <ul style="list-style-type: none">• Cameras• Microphones (already owned by Council)• Streaming unit• Tablet to control system• Equipment operated by staff from Council's communications team Streaming <ul style="list-style-type: none">• Conducted by the external provider• On-demand recordings are itemised by the external provider according to the agenda to enable viewers to find specific items of interest
Costs	Initial installation costs <ul style="list-style-type: none">• \$35,000 across two sites Ongoing running costs <ul style="list-style-type: none">• \$16,632/year to external provider
Observations by Council	Benefits experienced <ul style="list-style-type: none">• External provider is beneficial due to technical skills required Challenges faced <ul style="list-style-type: none">• Poor internet connectivity in some parts of the local government area Advice for other councils <ul style="list-style-type: none">• Council originally used voice-activated microphones which would activate whenever a staff member or councillor said anything, even if it was private remarks, and broadcast these to other attendees in the meeting room. Touch-activated microphones have since been installed which require the speaker to touch a button on the microphone for it to turn on and are much more appropriate.

Regional 2. Port Stephens Council

72,695 residents | 979 km² local government area

Meeting location: Raymond Terrace (council chambers) and other locations

Webcasting method	Webcast type <ul style="list-style-type: none">• Audio-visual Broadcast <ul style="list-style-type: none">• Meetings held in council chambers broadcast via live stream and on-demand• Meetings held in other locations broadcast via on-demand only• Equipment provided by Council and webcasting undertaken by an external provider
On-demand availability	Recordings published <ul style="list-style-type: none">• Straight after the meeting (for meetings held in the council chamber) Retained for <ul style="list-style-type: none">• 1 year, or to the limit of Council's information technology storage capacity (whichever is greater)
Commenced	2011 (break between 2012-2017)
Website reference	Council's website <ul style="list-style-type: none">• http://www.portstephens.nsw.gov.au/council-webcasting/webcasting (live stream and on-demand)
Technical details	Equipment <ul style="list-style-type: none">• Two cameras on either side of the meeting table, one directed at the Mayor and senior staff and the other facing the councillors. The camera automatically focusses on the person speaking, or the Mayor can override the microphone system, if required• 18 microphones which auto queue speakers• Audio-visual system is run through a separate computer within the Council Chamber• Equipment operated by Council's IT staff Streaming <ul style="list-style-type: none">• Livestream broadcast by an external provider• Screen is split so that the viewer can see councillors/staff as well as view the minutes being typed live
Costs	Initial installation costs <ul style="list-style-type: none">• \$19,120 for equipment Ongoing running costs <ul style="list-style-type: none">• \$8,800/year to the external provider to undertake webcasting Additional staff costs <ul style="list-style-type: none">• Additional pay for 2 IT staff to attend council meetings out-of-hours
Observations by Council	Benefits experienced <ul style="list-style-type: none">• Webcasting infrastructure is automated during meetings and controlled by the minute-taker Challenges faced <ul style="list-style-type: none">• Additional costs incurred as IT staff are required to attend meetings• Technology becomes outdated quickly and any upgrades to equipment that are required will increase ongoing costs

Regional 3. Byron Shire Council

34,574 residents | 566.7 km² local government area

Meeting location: Mullumbimby (council chamber)

Webcasting method	Webcast type <ul style="list-style-type: none">• Audio Broadcast <ul style="list-style-type: none">• On-demand via Council's website• Equipment and webcasting provided by Council
On-demand availability	Recordings published <ul style="list-style-type: none">• Immediately after the meeting Retained for <ul style="list-style-type: none">• Previous and current financial year (approx. 2 years)
Commenced	August 2015
Website reference	Council's website <ul style="list-style-type: none">• https://www.byron.nsw.gov.au/Council/Council-meetings/Council-audio
Technical details	Equipment <ul style="list-style-type: none">• Audio recordings are made using a custom audio system which includes:<ul style="list-style-type: none">○ microphones for all councillors and council senior staff○ touchpad desk controller for the minute-taker○ amplifier and recording device○ data networking infrastructure○ Windows server○ cloud hosting service (SoundCloud) Streaming <ul style="list-style-type: none">• Recordings are uploaded to Council's website as SoundCloud files
Costs	Initial installation costs <ul style="list-style-type: none">• \$40,000 – a \$63,000 audio-visual system had been purchased previously by Council and the webcasting component of this cost \$40,000 Ongoing running costs <ul style="list-style-type: none">• None – SoundCloud hosting service is free
Observations by Council	Benefits experienced <ul style="list-style-type: none">• Simple operation that does not require additional staff at meetings to operate• Having audio-only recordings has reduced costs• Council had been audio recording its meetings for many years, so webcasting the audio was a simple extension of that process

Regional 4. Cessnock City Council

59,101 residents | 1,966 km² local government area

Meeting location: Cessnock (council chamber)

Webcasting method	Webcast type <ul style="list-style-type: none">• Audio Broadcast <ul style="list-style-type: none">• On-demand via Council's website• Equipment and webcasting provided by Council
Commenced	5 June 2019
On-demand availability	Recordings published <ul style="list-style-type: none">• As soon as practicable Retained for <ul style="list-style-type: none">• 1 year
Website reference	Councils' website <ul style="list-style-type: none">• https://www.cessnock.nsw.gov.au/council/meetings/minutes
Technical details	Equipment <ul style="list-style-type: none">• Microphones• Amplifiers• Recording devices• Software• Equipment operated by Council staff already attending the meeting Streaming <ul style="list-style-type: none">• Recordings separated by agenda item where possible, or into smaller recording files to increase download speeds for viewers
Costs	Initial installation cost <ul style="list-style-type: none">• \$60,000 for equipment and costs of installation – equipment was purchased many years ago and likely to be able to be purchased for \$40,000-\$50,000 today due to improved technology and market competition Ongoing running costs <ul style="list-style-type: none">• Maintenance and replacement costs
Observations by Council	Benefits experienced <ul style="list-style-type: none">• Cost-effective• Council can operate and manage webcasting in-house Challenges faced <ul style="list-style-type: none">• System does not capture audio-visual. Council is however satisfied with audio-only at this point as it meets the current needs but upgrade to include video capturing will be monitored and considered in the future

Regional 5. Ballina Shire Council

44,208 residents | 484 km² local government area

Meeting location: Ballina (council chamber)

Webcasting method	Webcast type <ul style="list-style-type: none">• Audio-visual Broadcast <ul style="list-style-type: none">• Live-stream and on-demand via Council's website• Equipment and webcasting provided by Council
Commenced	March 2018
On-demand availability	Recordings published <ul style="list-style-type: none">• Day after the meeting Retained for <ul style="list-style-type: none">• 5 years
Website reference	Councils' website <ul style="list-style-type: none">• https://www.ballina.nsw.gov.au/cp_themes/default/agm.asp (contains link to Skype live-stream and on-demand recordings)
Technical details	Equipment <ul style="list-style-type: none">• 2 pan, tilt and zoom cameras• 16 wired microphones• Audio-visual management system• Computer to manage the broadcast• Equipment maintained and supported by in-house IT staff Streaming <ul style="list-style-type: none">• Skype Meeting Broadcast used to live-stream• Vimeo recording uploaded to Council's website for on-demand viewing
Costs	Initial installation cost <ul style="list-style-type: none">• \$110,000 for system design and equipment supply, installation and commissioning Ongoing running costs <ul style="list-style-type: none">• \$7,000/year for hardware maintenance and support agreement for associated equipment
Observations by Council	Benefits experienced <ul style="list-style-type: none">• Allows Council to control use of cameras, multiple inputs, projectors etc• System easily used by all staff• Leverages an existing enterprise voice system through Skype• Provides a comprehensive technology management solution rather than just a webcasting solution (as allows Council to control use of cameras and PowerPoint etc)• Caters for overflow into the public foyer• Has allowed Council to improve hearing assistance for people with hearing difficulties Challenges faced <ul style="list-style-type: none">• Generates an ongoing cost to Council• Requires additional training of staff• Has increased the time required to manage the technical aspects of the meeting production Advice for other councils <ul style="list-style-type: none">• 'Push to talk' microphones provide more focus for the speaker and ensure that people are not talking over the top of others

Regional 6. Central Coast Council

342,047 residents | 1,681 km² local government area

Meeting location: Gosford (council chamber) and Wyong (council chamber)

Webcasting method	<p>Webcast type</p> <ul style="list-style-type: none"> • Audio-visual <p>Broadcast</p> <ul style="list-style-type: none"> • Live-stream (small delay) and on-demand via Council's YouTube channel • Equipment and webcasting provided by Council
Commenced	October 2016
On-demand availability	<p>Recordings published</p> <ul style="list-style-type: none"> • Morning after the meeting <p>Retained for</p> <ul style="list-style-type: none"> • As webcasts are retained on YouTube they are kept for an unlimited period of time
Website reference	<p>Councils' website</p> <ul style="list-style-type: none"> • https://www.centralcoast.nsw.gov.au/council/meetings-and-minutes/council-meetings (includes link to Council's YouTube channel) <p>Council's YouTube channel</p> <ul style="list-style-type: none"> • https://www.youtube.com/channel/UCyln2VFr5PyJenUkg1RiG9A (contains live-stream and on-demand recordings)
Technical details	<p>Equipment</p> <ul style="list-style-type: none"> • 1 dome camera, 3 static cameras and 1 digital video recorder at each site • Additional computer at each site to link to the existing chamber sound systems • 2 webcasting software programs • Equipment operated by Council staff already attending the meeting <p>Streaming</p> <ul style="list-style-type: none"> • Directly streamed to Council's YouTube Channel • Includes a visual of the live minutes
Costs	<p>Initial installation cost</p> <ul style="list-style-type: none"> • Not provided <p>Ongoing running costs</p> <ul style="list-style-type: none"> • None
Observations by Council	<p>Benefits experienced</p> <ul style="list-style-type: none"> • Inclusion of the live minutes of the meeting in the webcast has been well-received by the community as it allows viewers to follow the meeting more effectively <p>Challenges faced</p> <ul style="list-style-type: none"> • Quality of webcast as seen by the community depends on an individual's PC memory and the internet connection bandwidth <p>Advice for other councils</p> <ul style="list-style-type: none"> • When selecting a streaming platform, consider the bandwidth and platform required against the screen size and resolution • Consider using the webcast to provide overflow rooms for meetings

Regional 7. Wagga Wagga City Council

64,820 residents | 4,825.9 km² local government area

Meeting location: Wagga Wagga (council chambers)

Webcasting method	Webcast type <ul style="list-style-type: none">• Audio-visual Broadcast <ul style="list-style-type: none">• Live-stream and on-demand via Council's website and Facebook page• Equipment and webcasting provided by an external provider
Commenced	May 2017
On-demand availability	Recordings published <ul style="list-style-type: none">• Immediately after the meeting Retained for <ul style="list-style-type: none">• 4 years
Website reference	Councils' website <ul style="list-style-type: none">• https://wagga.nsw.gov.au/city-of-wagga-wagga/council/meetings/watch-live Council's Facebook page <ul style="list-style-type: none">• https://www.facebook.com/waggacouncil
Technical details	Equipment (all provided by an external provider) <ul style="list-style-type: none">• 2 tripod mounted small form HD cameras and 1 pan-tilt-zoom HD camera, TV production switcher, cabling and audio interface with existing audio• White Label Enterprise Content Delivery Service embed code for website• Multi-bitrate for viewing on all devices and platforms• Video on-demand and video archive• Includes set-up and pack-up of equipment by external provider before and after each meeting, and operation during the meeting Streaming <ul style="list-style-type: none">• External provider transfers live-stream to on-demand recordings and provides archive• Screen alternates between view of councillors and view of live minutes being taken
Costs	Initial installation cost <ul style="list-style-type: none">• None Ongoing running costs <ul style="list-style-type: none">• \$20,000/year, including all costs such as equipment, meeting attendance, content delivery, archiving and technical support
Observations by Council	Benefits experienced <ul style="list-style-type: none">• Professional service delivery with technical experts available to facilitate process• Accurate and timely service Challenges faced <ul style="list-style-type: none">• Availability and quality of the webcast depends on a person's own technology, including internet speed, the availability of a supporting operating system, web browser, speakers and bandwidth restrictions Continuing improvements <ul style="list-style-type: none">• Based on a recent review of Council's webcasting system, Council has worked to improve the following aspects of its webcasting:<ul style="list-style-type: none">○ live-captioning of the meeting○ improving the quality of the audio, particularly microphone use○ promotion of upcoming live-streaming○ ease of locating the live-stream online○ accompanying the live-stream with live blogs, or a twitter feed embedded on the same page to run through decisions as they are made, making it easier to follow the meeting and debate, and○ enabling viewers to see what item is being discussed.

Regional 8. Snowy Valleys Council

14,532 residents | 8,960 km² local government area

Meeting locations: Tumut (council chambers) and Tumbarumba (council chambers)

Webcasting method	<p>Webcast type</p> <ul style="list-style-type: none"> • Audio-visual <p>Broadcast</p> <ul style="list-style-type: none"> • Live-stream and on-demand via Council's website and YouTube channel • Equipment and webcasting provided by Council
Commenced	2017
On-demand availability	<p>Recordings published</p> <ul style="list-style-type: none"> • Immediately after the meeting on council's YouTube channel <p>Retained for</p> <ul style="list-style-type: none"> • Unlimited time period as retained on YouTube
Website reference	<p>Councils' website</p> <ul style="list-style-type: none"> • https://www.snowyvalleys.nsw.gov.au/Council/Council-Meetings/Minutes-Agendas (contains link to the livestream and on-demand recordings on Council's YouTube channel) <p>Council's YouTube channel</p> <ul style="list-style-type: none"> • https://www.youtube.com/channel/UC4VPWcFvu1XuXGNJCuHSAAA
Technical details	<p>Equipment</p> <ul style="list-style-type: none"> • 4 webcams (already owned) • Tripod • Mini-computer (already owned) • Equipment operated by Council IT staff <p>Streaming</p> <ul style="list-style-type: none"> • Open/free source operating system, broadcasting studio software and YouTube for streaming and storage
Costs	<p>Initial installation cost</p> <ul style="list-style-type: none"> • \$120 for 4 tripods <p>Ongoing running costs</p> <ul style="list-style-type: none"> • Staffing costs to set-up, maintain and operate the system (IT council staff member for half-day/month)
Observations by Council	<p>Benefits experienced</p> <ul style="list-style-type: none"> • Low cost operation • Webcasting system is portable and can be use anywhere there is power and mobile reception (hotspots to council officer phone) or internet connection <p>Challenges faced</p> <ul style="list-style-type: none"> • Current system for setting up for webcasting is not sustainable as it is reliant on the resource time of one IT staff member for set-up and filming of each meeting – Council is investigating alternative options • The operation is technically complex and there is only one IT staff member who has the knowledge to set-up and run the software. The staff member also needs to be in the meeting room to operate the webcasting which takes them away from their core role <p>Advice for other councils</p> <ul style="list-style-type: none"> • Members of the community and media rarely attend meetings in person anymore as they can watch the webcast • Have a system that more than one staff member can set up and operate

Regional 9. Shellharbour City Council

72,240 residents | 147 km² local government area

Meeting location: Shellharbour (council chambers)

Webcasting method	Webcast type <ul style="list-style-type: none">• Audio -visual Broadcast <ul style="list-style-type: none">• Livestream and on-demand via Council's website• Equipment provided by Council and webcasting service provided by external provider
Commenced	2008
On-demand availability	Recordings published <ul style="list-style-type: none">• One week after the meeting Retained for <ul style="list-style-type: none">• All meetings that have been recorded since webcasting began in 2008 are available on Council's website
Website reference	Councils' website <ul style="list-style-type: none">• http://webcast.shellharbour.nsw.gov.au/ (provides link to livestream and on-demand recordings)
Technical details	Equipment <ul style="list-style-type: none">• 4 high definition pan, tilt, zoom cameras• Tablet computer which controls camera positions• Microphones (already owned by Council)• Equipment operated by Council staff who already attend meetings Streaming <ul style="list-style-type: none">• Streaming equipment provided by external provider
Costs	Initial installation cost <ul style="list-style-type: none">• \$20,000 for cameras and streaming equipment Ongoing running costs <ul style="list-style-type: none">• \$14,400/year to external provider for webcasting service and editing of footage to align with meeting agenda

Regional 10. Eurobodalla Shire Council

38,288 residents | 3,428.2 km² local government area

Meeting location: Moruya (council chambers)

Webcasting method	<p>Webcast type</p> <ul style="list-style-type: none"> • Audio -visual <p>Broadcast</p> <ul style="list-style-type: none"> • Livestream and on-demand via Council's website • Equipment provided by Council and webcasting service provided by external provider
Commenced	January 2015
On-demand availability	<p>Recordings published</p> <ul style="list-style-type: none"> • Within 48 hours of the meeting <p>Retained for</p> <ul style="list-style-type: none"> • 7 years
Website reference	<p>Councils' website</p> <ul style="list-style-type: none"> • http://webcast.esc.nsw.gov.au/ (provides link to livestream and on-demand recordings)
Technical details	<p>Equipment</p> <ul style="list-style-type: none"> • 4 cameras that provide 4 different views of the chamber • Cameras can be moved electronically which enables a change in view from the public speaking stand to the minute screens • Existing audio system • Equipment operated by Council staff already attending meeting <p>Streaming</p> <ul style="list-style-type: none"> • Undertaken by external provider and hosted externally to Council's website
Costs	<p>Initial installation cost</p> <ul style="list-style-type: none"> • \$20,000 for cameras (used existing audio system) <p>Ongoing running costs</p> <ul style="list-style-type: none"> • \$18,000/year to external provider for webcasting service
Observations by Council	<p>Benefits experienced</p> <ul style="list-style-type: none"> • Hosting webcasting service externally to Council's website reduces the bandwidth and data costs associated with livestreaming • Council was able to work with its external content management system to ensure seamless integration with its current website for greater customer experience • Council's IT team does not have to manage the webcasting service <p>Challenges faced</p> <ul style="list-style-type: none"> • Council has no control over the quality or download speed available to individual users wishing to view live streaming or access on-demand recordings

Rural and remote 1. City of Broken Hill Council

17,734 residents | 170 km² local government area

Meeting location: Broken Hill (council chamber)

Webcasting method	<p>Webcast type</p> <ul style="list-style-type: none">• Audio-visual <p>Broadcast</p> <ul style="list-style-type: none">• Live stream and on-demand via Council's Facebook page (link provided on Council's website)• Equipment and webcasting provided by Council
On-demand availability	<p>Recordings published</p> <ul style="list-style-type: none">• Immediately after the meeting <p>Retained for</p> <ul style="list-style-type: none">• Previous and current financial year (approx. 2 years)
Commenced	August 2017
Website reference	<p>Council's website</p> <ul style="list-style-type: none">• https://www.brokenhill.nsw.gov.au/Council/Meetings/Live-Streams (provides link to Council's Facebook page) <p>Council's Facebook page</p> <ul style="list-style-type: none">• https://www.facebook.com/BrokenHillCityCouncil/ (shows live-stream and on-demand recordings)
Technical details	<p>Equipment</p> <ul style="list-style-type: none">• A mobile phone is connected to a shotgun microphone with +10 decibel amplification and used to take an audio-visual recording of the meeting• The mobile phone is held in place by a mobile device adapter attached to a tripod head• The tripod head is placed on top of a wall in the council chamber and directed to a PA speaker in the chamber• Equipment operated by Council staff <p>Streaming</p> <ul style="list-style-type: none">• Facebook's Pages Manager app is used to live-stream the meeting via Council's Facebook page
Costs	<p>Initial installation costs</p> <ul style="list-style-type: none">• \$19.95 for an extension lead• Council already owned the rest of the equipment used (\$300 value) <p>Ongoing running costs</p> <ul style="list-style-type: none">• None
Observations by Council	<p>Benefits experienced</p> <ul style="list-style-type: none">• Inexpensive and minimal increase to website bandwidth• Simple operation that does not require a specialist• System can be transported to other locations if needed <p>Challenges faced</p> <ul style="list-style-type: none">• Sub-optimal audio-visual quality• Requires in-house manual moderation of inappropriate comments• Requires in-house manual update of Council's website with links to Facebook webcasts <p>Advice for other councils</p> <ul style="list-style-type: none">• A good audio signal is essential if Council is relying on externally recording the audio in the meeting room (i.e. via a mobile phone) for their webcast• Have a strong social media policy and/or tight social media terms of use to govern how Council's social media can be used by staff and the community in relation to webcasting• Have a staff member moderate any comments made in reply to webcast posts on social media in case any inappropriate comments are posted by members of the public (at least for the day after the webcast is posted)

Rural and remote 2. Federation Council

12,462 residents | 5,685 km² local government area

Meeting location: Urana (council chambers) and Corowa (council chambers)

Webcasting method	Webcast type <ul style="list-style-type: none">• Audio-visual Broadcast <ul style="list-style-type: none">• Live-stream and on-demand via YouTube• Equipment and webcasting provided by Council
On-demand availability	Recordings published <ul style="list-style-type: none">• Immediately after the meeting Retained for <ul style="list-style-type: none">• 1 year
Commenced	April 2017
Website reference	Council's website <ul style="list-style-type: none">• https://www.federationcouncil.nsw.gov.au/Council/Council-Meetings/Minutes-Agendas (provides link to Council's YouTube channel) Council's YouTube channel <ul style="list-style-type: none">• https://www.youtube.com/channel/UCdZehH_eqMuJc3XZtQ9SNXw/live (shows live-stream and on-demand recordings)
Technical details	Equipment <ul style="list-style-type: none">• In council chambers - fixed live-streaming camera with wireless microphones. Camera has on-board software for streaming YouTube• If held outside council chambers – 4K handycam with a microphone and a portable livestreaming box and 4G hotspot (can be used in any location) Streaming <ul style="list-style-type: none">• Streamed automatically by Council staff via YouTube
Costs	Initial installation cost <ul style="list-style-type: none">• \$15,000 for camera and microphone equipment Ongoing running costs <ul style="list-style-type: none">• Cost of the 4G data plan required for the uplink
Observations by Council	Benefits experienced <ul style="list-style-type: none">• Easy to operate for Council staff Challenges faced <ul style="list-style-type: none">• It can be difficult for viewers to navigate Council's website to find the live-stream• Good microphone equipment is very expensive• As the recording is not itemised by agenda item and there is no search capability, on-demand viewers need to know what was on the agenda for each meeting and then manually scroll through each recording to find the item they are interested in• Recording is stopped whenever there is a meeting break or a closed session. Each meeting can therefore have multiple recording files which lessens the viewer experience• Individual user settings such as bandwidth, internet connection, PC memory and capacity may impact on the quality of the webcast but are outside of Council's control Advice for other councils <ul style="list-style-type: none">• Conduct regular sound and video checks if the webcasting equipment is also used by others to record other meetings

