

Beresfield – Adaptive community placemaking in an urban local centre

COUNCIL NAME

City of Newcastle

WEB ADDRESS

newcastle.nsw.gov.au

SIZE

187 square kilometres

POPULATION

Approx 171,000 people

Overview of the project

The suburb of Beresfield, located in the west of the Newcastle LGA away from the cooling influence of the coast, is a known urban heat island. In 2019 City of Newcastle renewed Beresfield's local centre, resulting in the conversion of roadway into a small new public space in the heart of the centre. City of Newcastle staff collaborated with the community through a placemaking process, to design a comfortable, inviting, and unique space which people would enjoy using.

The reduction of high summer temperatures was an important design objective, making it a perfect trial site for the Smart Trees Project (undertaken in collaboration with the University of Newcastle). With Increasing Resilience to Climate Change (IRCC) grant funding, Council was able to continue the collaboration to explore options for cooling the site and measure temperatures over three summers. Data analysis shows that the site was successfully cooled.



New public space in Beresfield Local Centre

How the project was carried out

Adaptive Community Placemaking

In early 2019 Council engaged professional street artists Up'n'Up to undertake workshops with local schools. The school students explored ways to use the site and came up with a nature theme. A place-warming event was held on the site in its 'blank canvas' state to generate ideas. In late 2019 the community was invited to vote on three concept options via an online survey and on-site drop-in session. The vote was split between two options, which were combined to create the final design.

Collaboration with the University of Newcastle (UoN)

UoN advised on heat reducing materials and collaborated with Council to distil the community's ideas into design options. UoN undertook temperature measurements, before and after construction, during January/February in 2019, 2020 and 2021. These results were analysed

REFERENCES

Smart Trees:
Resilience Strategies
to Combat Urban
Heat Island Effect,
Newcastle NSW
2019 (UoN)

Beresfield Local
Centre: Urban Heat
Measurements
Report 2021 (UoN)

and reported mid-2021 and indicate temperatures were up to 8 - 10 degrees cooler in some parts of the site.

Outcomes now and in the future

A unique and comfortable public space

The outcome of the placemaking process is a unique and comfortable space that celebrates the local community and its connection to the natural world. It includes a playable garden area with sandstone blocks, low level planting, a table and varied seating opportunities. Light coloured and reflective materials, natural stone, planting and shade were used to reduce temperatures. The ground mural uses non-slip paint specified by UoN to reflect heat, and the blue colour has a psychologically cooling effect.

Adaptable shade

Younger community members voted for a shade tree to cool the space, but older people preferred a shade shelter, because they felt they would not live to get the full benefit of a tree. Council listened to this feedback and combined both options in the final design. Analysis of temperature data collected over three summers shows that the site has been successfully cooled and this cooling effect is expected to increase as the tree grows. When the tree is large enough, Council anticipates being able to reuse the shade shelter on another site.

Benefits and lessons learned

Benefits

By following a placemaking approach Council was able to learn from the community and come up with a nuanced design that meets the needs of different age groups. Collaborating with UoN made it possible to share knowledge and expertise, to collect and interpret data and develop a toolkit of materials, which are being using on other public domain projects. As part of the project UoN designed an adaptable shade shelter which can accommodate perforated or impermeable roof sheeting, function as a trellis, and be modified to collect water in underground tanks. This design is being trialled in Beresfield with a view to using it on future projects.

Lessons

- Placemaking and a collaborative design approach take time, and the project took longer than was expected. The benefits are worth the wait, but sufficient time and budget need to be factored in at the outset for this type of project.
- People take a pragmatic approach to shade and cooling options, and opinions on the best option can vary between age groups.
- Providing instant shade with a temporary structure is a good way to cool a site while waiting for tree shade to grow.
- Replacing black asphalt footpath and roadway with plain concrete and groundcover vegetation had a measurable cooling effect.

More information

For more information visit [Council's website](#) and the [project consultation page](#).
To view the project video visit [LGNSW IRCC videos](#).

Contact

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