Keeping Beaches Safe with No-Code Apps

Tony Blunden and his team enable lifeguards and council workers to evaluate beach safety requirements, determine funding and allocate resources. All based on easy-to-use apps.

How the Coastal Safety Group keeps beaches safe with a customized app

The Coastal Safety Group is a joint organization of Northern Beaches Councils in New South Wales/Australia. One of its driving forces is Tony Blunden. Tony is the project manager for the Smart Beach Project of Lake Macquarie City near Sydney, one of the most frequented beach areas in the region.

Tony's main objective is to evaluate the use of technology to improve safety on beaches and to ensure that all resources are allocated in the best way. As council resources and funding are scarce, objective data to form business cases is vital and so is easy-to-use technology that every council can afford.

> *"It's vital for our council to know how to allocate its resources in the best way. Where to put lifeguards, how many to put on, at what times they are patrolling? We have changed the way we are making these risk-based decisions with smart technologies. And Open as App is one of them."*

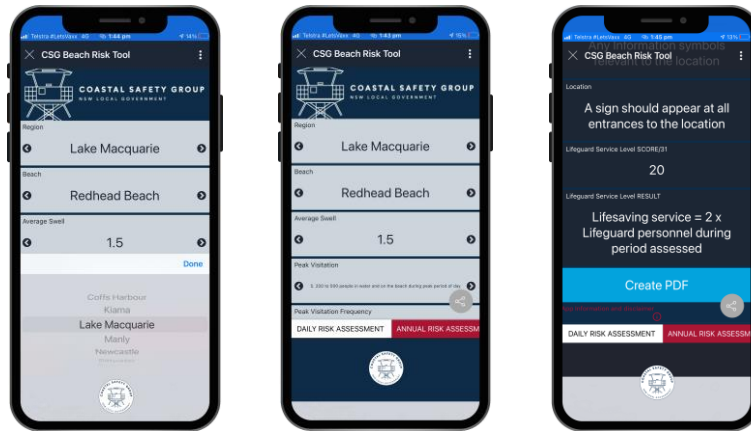Tony Blunden, project manager for Smart Beaches Project, Lake Macquarie City/ Coastal Safety Group

CHALLENGE
BACK UP DECISION MAKING AND FUNDING WITH INDEPENDENT DATA

Before the Smart Beaches Project, the experience and understanding of the lifeguards on duty were the only sources of planning. While their deep knowledge is key for risk assessment and decision-making, it is hard to form a business case for council funding from it. In addition, all information obtained was during patrolled times. Important questions like how many people are on the beaches even after patrolled hours, during winter, and at unpatrolled beaches remained unanswered. Also, risk factors such as water conditions could not be assessed in a structured way.

So, the Smart Beaches Project started to expand data collection and deep-dived into risk assessment methods. Its main objective, to provide a decision-making tool for all stakeholders involved.

SOLUTION
DATA AND RISK ASSESSMENTS ACCESSIBLE BY APP

Today, Lake Macquarie Council has a good understanding of how many people are at the beaches, when they are coming to the beach, and when they are leaving, even in Winter. All year round, cameras and AI programs count the numbers of people on the beach every 15 minutes – no individual tracking is applied.

Some of the findings were quite surprising and helped to optimize resource allocation. For example, the team found some quite high attendances with people swimming in cold water in August (Australian winter) when there are no lifeguards on. While on rainy and stormy January days in the Australian summer there are no visitors, but lifeguards are on duty.

> *"Open as App is really easy to use. We had been working for weeks on our Excel spreadsheet. Turning it into an app was fast. We had our first functioning app prototype in less than an hour. Then we started refining it and we were done."*
>
> Tony Blunden, project manager for Smart Beaches Project, Lake Macquarie City/ Coastal Safety Group

In addition, to resource planning the Smart Beaches team gathered data sources for risk assessment. Using several methods and sources to evaluate and predict water conditions like the wave swell.

All relevant data obtained were combined in an Excel solution for extensive lifeguard reporting. The resulting Excel workbook with its powerful calculations and references turned out much too complicated for distribution. Therefore, Tony and his team decided to create an app based on their Excel sheets and found Open as App, a no-code app creation platform using Excel logic. Without coding and based on their Excel data and formulas they created an app for risk assessment – mid-to-long term for resources allocation in the council as well as for daily use to back decision-making on site.
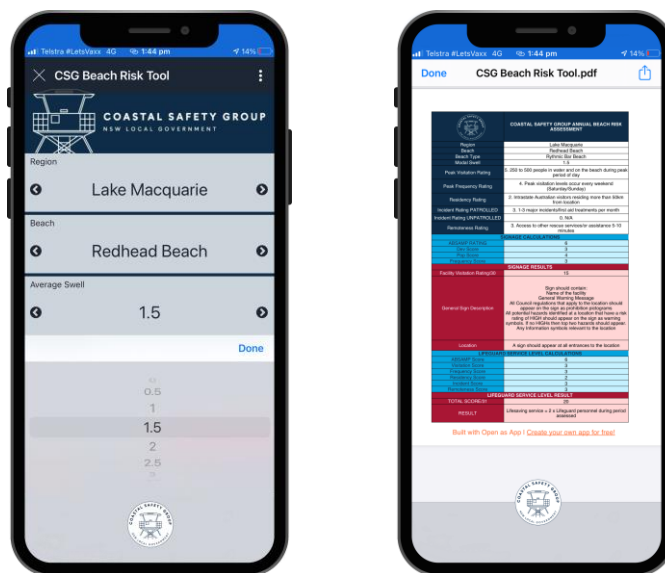
RESULT: EASY TO SHARE NO-CODE APP FOR DAILY DECISION-MAKING AND ANNUAL PLANNING

The app has been created to spread within the Coastal Safety Group and its associated councils. It is designed to support risk management assessments and used by coastal land managers and lifeguards.

> *"App distribution is as easy as the app creation in Open as App, so we can ensure maximum accessibility and spread of our findings."*
>
> Tony Blunden, project manager for Smart Beaches Project, Lake Macquarie City/ Coastal Safety Group

The **Annual Risk Assessment** supports a medium to long-term prediction for resources allocation and funding. Council planners and lifeguard managers can model the average visitation and swell and predict the average lifeguard requirement on a beach. This way, they can decide in advance if they need to hire more lifeguards for a season or if they should extend the season, for example. A PDF report for the records can be downloaded.

The **Risk Assessment on the Day** feature part is for lifeguards on duty. It produces a daily risk assessment that can help support open/close and extension decisions. Lifeguards get information on the actual visitor numbers and the specific water conditions on-site. With that knowledge, they can back up decisions and print a PDF report for the records.

> *"With Open as App, we can ensure that council managers and lifeguards can easily make decisions based on data without deep-diving the Excel calculations."*
>
> Tony Blunden, project manager for Smart Beaches Project, Lake Macquarie City/ Coastal Safety Group

The Excel workbook and the app work with manual data input and with added automated input from videos and AI. It is utilizing two existing frameworks: Statewide Mutual Best Practice Manual - Signs as Remote Supervision, and Surf Life Saving Australia Lifesaving Service Level Analysis.

Tony Blunden and his team have reached their goal. Today, risk decisions are evidence and data-based. This is an important step to improve the safety of beaches.

The app is spreading among councils helping them to plan or replan beach patrols. Its use could be extended e. g. to count the maximum number of people for COVID crowds and of course, the data quality will continuously be improved and extended.

All these additions can be rolled out fast, as, with Open as App, the Coastal Safety Group has laid a solid ground for the joint use of data and technology innovation.

COASTAL SAFETY GROUP

The Coastal Safety Group is a joint organization of Northern Beaches Councils in New South Wales, Australia. More...

OPEN AS APP

Create & share great apps based on your data in Excel, Google Sheets, or databases. Automatically available for any platform. No-coding required. Make your know-how stand out and boost your digital transformation! Try it now!

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