Transforming Health & Safety monitoring
East Riding of Yorkshire Council

The Challenge

- Find a better way to manage health and safety monitoring of Council workers.

The Benefits

- Enhanced Health & Safety
- Better reliability and integrity of data
- Ease of creation and use
- Better use of resources

In a local government first, East Riding of Yorkshire Council has developed a new approach to keeping its Streetscene Services workers safe while optimising reliability and efficiency of data collected. Using ArcGIS Survey123 it has built a user-friendly Streetscene Services app, accompanied by performance dashboards to capture data, monitor and manage field workers. Similar apps are expected to be rolled out across further Council aid services.

The Challenge

It was only by attending a GIS User forum that the Project Manager for Waste and Streets for East Riding of Yorkshire Council (ERYC) realised he had a problem.   Steve Parkinson's role is to find solutions for the Council to address key tenets of the Government's 'Resources & Waste Strategy for England'. Having attended the event, he could see that there was a better way to improve the undertaking and monitoring of site safety inspections for operational teams within ERYC's Streetscene Services.

Delivered from five separate depots, ERYC's Streetscene's remit covers multiple services ranging from environmental programmes to highway maintenance and technical services. Site inspections of field workers are required by law, to monitor the compliance of operational teams with health and safety measures.   However, the effectiveness of site inspections and the quality of data being collected was becoming an issue.

Software used to carry out site safety monitoring was unreliable. The app would often crash when users were submitting site safety inspections, so data could not be sent. Supervisors undertaking site inspections would also have to use paper forms to assess seasonal Health and Safety requirements, eg ensuring field workers were using sun cream on hot days, resulting in wasted time transferring data from paper records from surveys in the field, to a central database.

Given the importance of maintaining Health & Safety standards and, with ERYC mandated to perform one site safety inspection once per month, for each field worker, a more sophisticated yet simple-to-use digital approach was required.

The Solution

Even with only limited experience of using desktop GIS (ArcMap), Steve was able to transpose questions from Health & Safety Executive (HSE) guidance into a pilot site safety inspection survey, for waste collection and street cleansing services, into ArcGIS Survey123. Additional features offered by ArcGIS Survey123 such as location and photo capture and a signature box, were added.

The survey asked the supervisor to rate criteria such as staff, vehicle and operations as 'satisfactory' or 'unsatisfactory' or N/A.   Prepopulated lists of answers avoided the issue of free text fields and a mandatory text field would pop up so that 'unsatisfactory' answers would enable the supervisor to give comments along with a mandatory image upload prompt, asking the supervisor to take a photo of the issue.

Filters were included to ensure that only relevant questions were included for each site inspection. For example, staff names and services were split so only the names of staff in the specific teams would be shown for each survey.

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> "Managers can now more easily see problem areas they need to focus on becayse the incoming data is so much more reliable. We would never have had this insight previously and, ultimately, our citizens benefit from better Council services"
>
> Paul Tripp, Head of Streetscene Services, East Riding of Yorkshire Council

Group manager, environmental service dashboard

While data captured in ArcGIS Survey123 is immediately available in ArcGIS, Steve created dashboards to display data in a more user friendly and efficient way. Each dashboard was configured to show relevant data to various levels of management for each service area, from the group manager of environmental services to the service manager of the waste, streets and grounds service.

The initial trial was quickly expanded to include site monitoring for grounds, forestry, cemeteries and play areas. Then, following a group manager meeting for Streetscene Services, it was unanimously agreed to continue the roll-out into all areas of Streetscene Services. Now, any changes to survey questions can be easily and quickly configured in ArcGIS Survey123 in-house, no external IT support, specialist coding or developer services are required. Site inspections are paper free, and supervisors can immediately initiate Health & Safety prompts of the day. blandit. Quisque a augue velit. Curabitur sit amet consequat leo. Nunc luctus nunc quis faucibus tincidunt. Sed sed iaculis enim, in porta lectus. Nulla porttitor ipsum sit amet orci laoreet lacinia. Nam hendrerit diam sed euismod consectetur. Morbi dignissim finibus nibh at convallis. Duis imperdiet nibh nec congue placerat.

The Benefits
Enhanced Health & Safety
Streetscene Services now have greater flexibility and the necessary reliability to better manage the health and safety of staff within the more safety critical aspects of the Council. A reporting mechanism captures any staff that have not received a monthly site safety inspection, ensuring that staff are up to date with health and safety matters and the council is protected from investigations by the HSE.

Integrity of Data
Authoritative data captured by the surveys allows for in-depth analysis to identify trends that can help improve the safety of staff. With greater knowledge of issues on the ground, supervisors can quickly and confidently solve problems thanks to more accurate location capture and images sent direct from site of the survey. Survey updates can be made daily such as new starters or vehicles no longer in use, so data collected is more accurate, further enhancing the reliability of data collected.

Ease of Creation & Use
Having the ability to create and update surveys in-house gives greater control and removes the inconvenience of having to bring in third party developers or specialist coding resources. With ArcGIS Survey123 and ArcGIS Dashboards the department now has a standardised system, the mobile app giving greater flexibility for supervisors carrying out inspections.

Better Use of Resources
Being able to include set text within a survey means that supervisors no longer need to use a paper copy of that month's team brief. Digitised site inspection surveys with a note field highlighting any relevant messages or issues relating to health and safety removes the need for paper surveys to be printed off in the office, saving paper costs and reducing the burden on supervisors to upload data on their return to the office.

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