

NEXINITE

**Communication
and Reporting
Solutions for a
Large Water and
Wastewater CIP**

A Case Study By Nexinite

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RESCU Case Study

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Introduction



How do 150 people communicate across 32 different organizations, while working within a massive, yet determinant budget of almost \$500 million?

This big question was presented to our team in 2017. The quandary was no surprise because communication is a common concern in capital improvement programs (CIP).

Our team set out to address it. And, in doing so, we created a programmatic report still being used today in the RESCU program.

This RESCU report is presented to the owner-advisor board monthly and links financial, logistical and progress data into one report, allowing the board to make informed decisions across many program areas.

This whitepaper details how a robust communication solution using Microsoft Teams leads to collaboration, comprehensive reporting and informed decision making on this progressive design-build (PDB).

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Customer Overview: RESCU

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Introducing RESCU

RESCU, or Regional Environmental Sewer Conveyance Upgrade, is a program of work consisting of 11 large projects commissioned by Silicon Valley Clean Water (SVCW).

SVCW is a joint powers authority (JPA) that owns and runs a water and wastewater treatment plant (WWTP), including accompanying wastewater pumping and conveyance facilities, for several cities on the southwestern shore of the San Francisco Bay.

The goal of RESCU is to ensure a reliable sewer system for the next 100 years for this region. And with the projects being completed under RESCU, entities managing surrounding collection systems can confidently upgrade them, knowing the end point, the WWTP, will be there for the next 100 years.



Image Source: barnard-inc.com

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**It Started
with Quality
Assurance**

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It Started with Quality Assurance

When work for RESCU began in 2017, Tanner Pacific, Inc. was tapped to oversee quality assurance for many of the projects, including front of plant, the pump station and the gravity pipeline.

With it being a construction management agency specializing in public works, and specifically for water resource projects, Tanner Pacific was ideal for this role.

It was only a few months into the RESCU work that Tanner Pacific realized a big challenge. And surprisingly, it had nothing to do with construction. With that, they were confident.

Instead, the challenge was communication. Tanner Pacific recognized the importance of it and prioritized it.

Tanner Pacific knew that with a comprehensive system for communicating RESCU would run smoother and more efficiently. These are admirable goals for any massive CIP and essential for a PDB where the design-build team is working alongside contractors and the owner(s) from the start.

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Communication

The Initial Challenge with RESCU

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The Initial Challenge: Communication

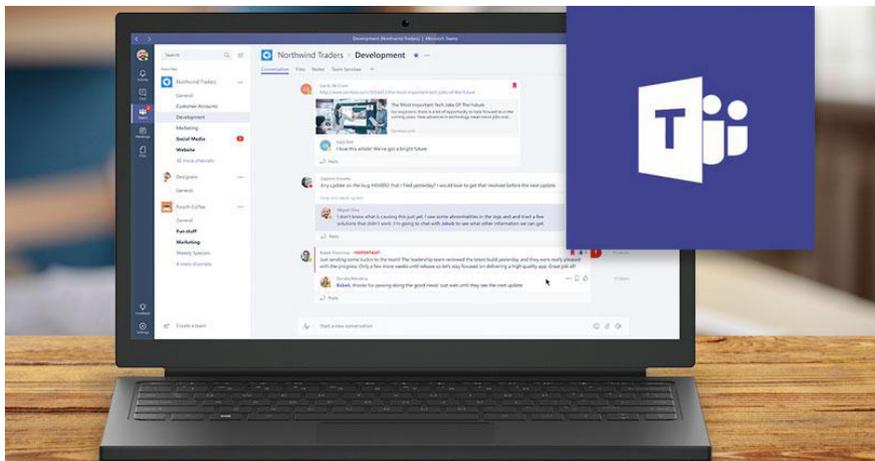
Nexinite was asked by Tanner Pacific to address the communication side of RESCU, a quest perfect for our project-specific, solutions based team. As a Microsoft partner, we build solutions around the Microsoft products our clients are already utilizing.

Several months earlier in 2017, we had built Tanner Pacific's infrastructure and internal communications around Microsoft Teams. Therefore, Teams was a logical choice for the entire RESCU program.

A program like RESCU, one spanning over five years and hundreds of millions of dollars, needed an agile, yet robust communication solution.

Mike Jaeger, a managing partner at Tanner Pacific, described the challenge and solution well. Jaeger said, "Because there are multiple projects, multiple owner-advisor entities and multiple joint-venture contractors with their own consultants and subcontractors, plus the SVCW staff, there were a lot of people who had to communicate on a regular basis. Teams became the centerpiece for the management of the RESCU program."

Tanner Pacific and the many other stakeholders now use Teams for collaboration, messaging and file sharing.



Microsoft Teams. Source: PC Mag



Reporting

The Subsequent Challenge
at RESCU



The Subsequent Challenge: Reporting

Hope is a terrific side effect of delivering a well-oiled solution. Everyone involved starts to realize the endless possibilities at their fingertips and to wonder what other nagging issues can be resolved.

This was the case here.

Our delivery of a robust solution and the education we offered for Microsoft Teams allowed for direct, daily communication for everyone involved with RESCU. But reporting is also essential to a CIP, and especially for one being constructed using a PDB.

Insightful engineers, board members, firms like Tanner Pacific knew a report with the right data could serve as vital information for RESCU going forward.

We raised our hand to tackle the report. After all, Teams, along with SharePoint, would serve as the foundation; we were confident we could deliver the commission report. This report was to be presented by mid 2018 to the SVCW board by managers detailing progress on all fronts.

We Started With...

Addressing the reporting issue seemed like a logical step because of the work with Teams and the RESCU program we had already done.

As Ken Pilkins, one of our managing partners, summarized, “We’re really good at organizing and structuring all the information for RESCU. In the Team’s environment, we’ve got controls around the documents, and we’ve got good collaboration taking place.”

So, our team, plus the assistant general manager of RESCU at the time, sat around a tiny round table in a construction trailer on site for a week, identifying the data points to include in the report. Teams and SharePoint served as the data hub.

And as the week came to a close, we had a report!

From that first one in 2018, a report has been issued each month since, detailing construction progress, financial stats, asset management and more.

We Moved To...

But like we noted at the start of this section, a well-functioning solution leads to hope, a wish for the next almost-impossible problem to be solved.

So, we dreamed bigger and better.

We knew this report had to be scalable. And thus, we built the initial report using a few building blocks. Much like creating a house of Legos, we understood how to add more building blocks over time to make this report stronger, more innovative.

Michael Panagis, Nexinite's analytics practice lead, stated, "Architecturally, we knew where we wanted to go with this report, and this is where the concept of utilizing more of the technology stack within what Microsoft offers comes into play." Panagis further explained, "Say we've got a tool that does great at data access and digitalization, and if we can centralize that data, structure it, bring it in and organize it in a way that makes a lot of business sense, we can do even more. This is where the business data repository (BDR) idea came in. We utilized what's now called Dataverse, which then allowed for a Power Query tool that is used in Power BI."

These additions to the technology stack kept the end report looking the same but added scalability and flexibility in the backend, allowing the report to grow with the program.

And the Report Goes On...

We are proud of our work on this commission report. It is still being used today. And just as impressive, it has run like clockwork since its inception. Even through data migration, the RESCU report was available without a hitch.

Stephanie Roberts, a Power BI specialist at Nexinite, noted, "This report is a good example of one living through the initial prototype phase. We started with Teams and SharePoint and then gradually built a more complex tech stack."

Conclusion

Today's technology solutions must be scalable and agile, while still being accessible to end users and providing relevant information to decision makers. It is a tall order. But, it is doable.

Our solutions for communication and reporting for RESCU are examples.

Panagis summarized our work with this large water and wastewater CIP well. He stated, "It was not only about data. It was about information. We needed collaboration and secure access and distribution of this information. If you create great stuff, but aren't comfortable with the security for the access of it and so on, you're going to build walls around it. Then you're going to have great information that nobody sees and nobody can use. Our solutions didn't do this. We offered collaboration, along with security."

Microsoft's suite of products allows firms like ours to create solutions one building block at a time, without interrupting communication or reporting but while still bolstering efficiency, security and flexibility.

[Contact us here](#) if you want to know more about how we can help you. To learn more, head to our website at www.nexinite.com.

**Special thanks to Mike Jaeger from Tanner Pacific, Inc. for graciously agreeing to an interview for this paper*

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