



# Dashboards: A Data Lifeline for the Business

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**T**he Washington D.C. aqueduct was completed in 1863, carrying desperately needed clean water to its many residents. Just as the aqueduct was vital and important to its residents, a lifeline if you will, so too is the supply of data to the business. Without the flow of vital information, many businesses would not be able to make important decisions. The task of building my company's first dashboard was brought before us; the business had not asked for it, rather our CIO. In this poster, I discuss how we were able to bring fresh ideas and data to our business units by converting the data they saw on a daily basis in reports, to dashboards. The road to success was long with plenty of struggles—from creating our own business requirements to building data marts, synching SQL to SAS®, using information maps and SAS® Enterprise Guide® projects to move data around, all while dealing with technology and other I.T. team roadblocks. Finally, on to designing what would become our real-time dashboards, fighting for SharePoint single sign-on, and, oh yeah, user adoption. My story of how dashboards revitalized the business is a refreshing tale for all levels.



## Objective

Figure out what would become our first Dashboard – we wanted one that would involve the whole Credit Union, so we could have buy-in from the start.

Meet the need of near real-time access to information

Sell our idea to the business, and then gather business requirements

Figure out how to use SAS® – we were SQL people

Build the Dashboards

Use SharePoint to display some dashboards and be the link to the SAS® BI Dashboards

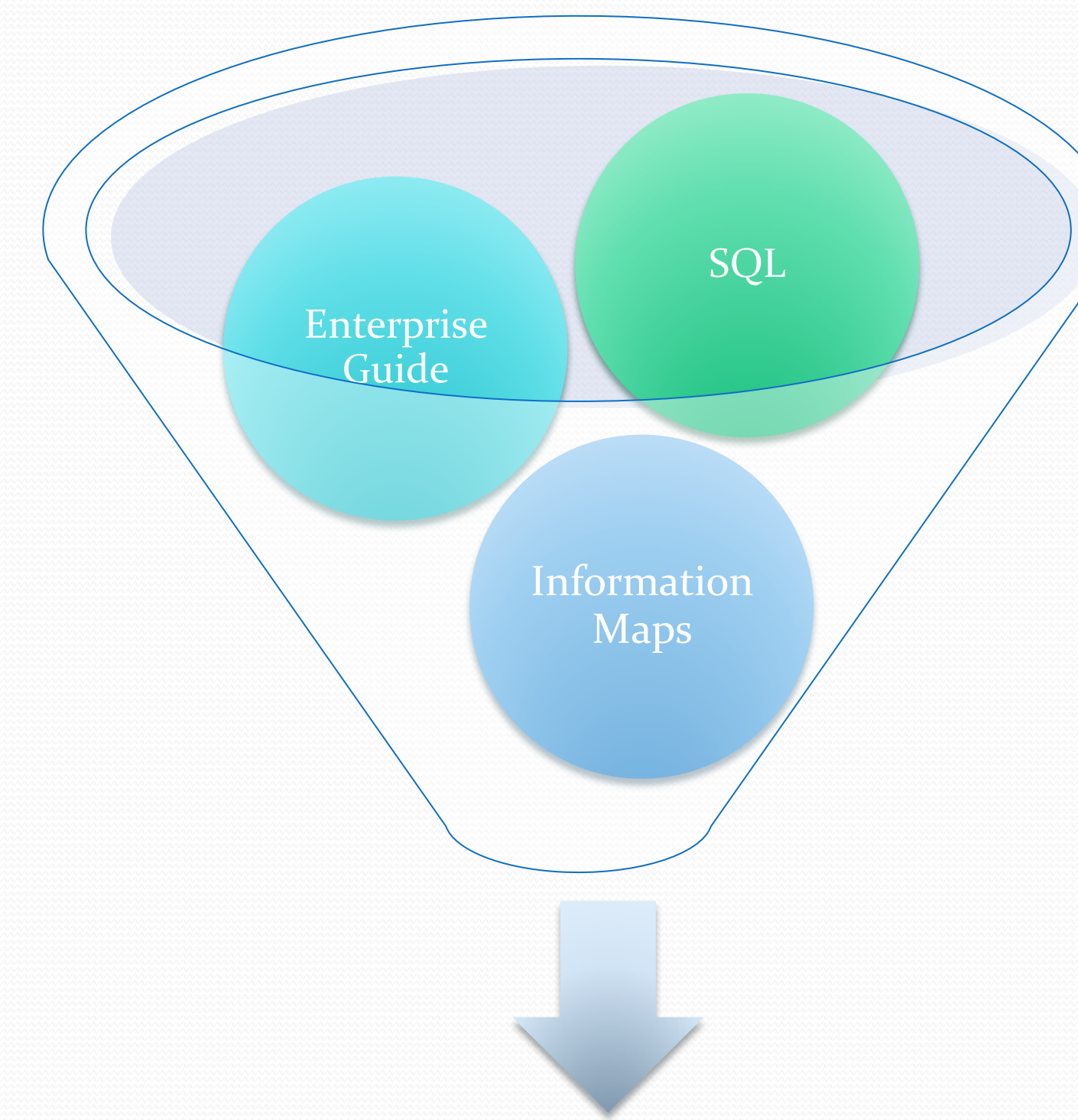
## Method

SQL is our main source of data. If something needs to change, we essentially only have to change it in one place. It can be re-used by as many times as we want, by either Enterprise Guide or Information Maps.

The Information Maps became our main hub for sorting and filtering the data into multiple Maps.

Faster processing – since our data is spread out over multiple servers (SQL being the powerhouse for inserting and storing the data, and SAS® processing already processed data) it is super fast.

Up-to-date data. The data that we are providing to our end users is updated every 5 minutes.



## Results

For our first dashboard we decided to monitor account growth

This ensured user buy-in, as our staff is engaged in helping the CU grow and benefit our membership

It was easy to “sell” our idea to the business leadership. While we were gathering requirements, our business units were thrilled about our idea, and the time it would save them from having to go to multiple reports, and sources to get the data they needed for their departments.

While we are still trying to learn SAS®, we partnered with Zencos Consulting LLC to help us customize our SAS® installation and jumpstart our first dashboard. We had technical obstacles to over come: single sign-on integration , issues with JAVA, SharePoint integration and upgrading from 9.3 to 9.4.

Tricia Aanderud helped us craft our dashboards from data to finish in less than one month

Easy access to current data for all CU employees

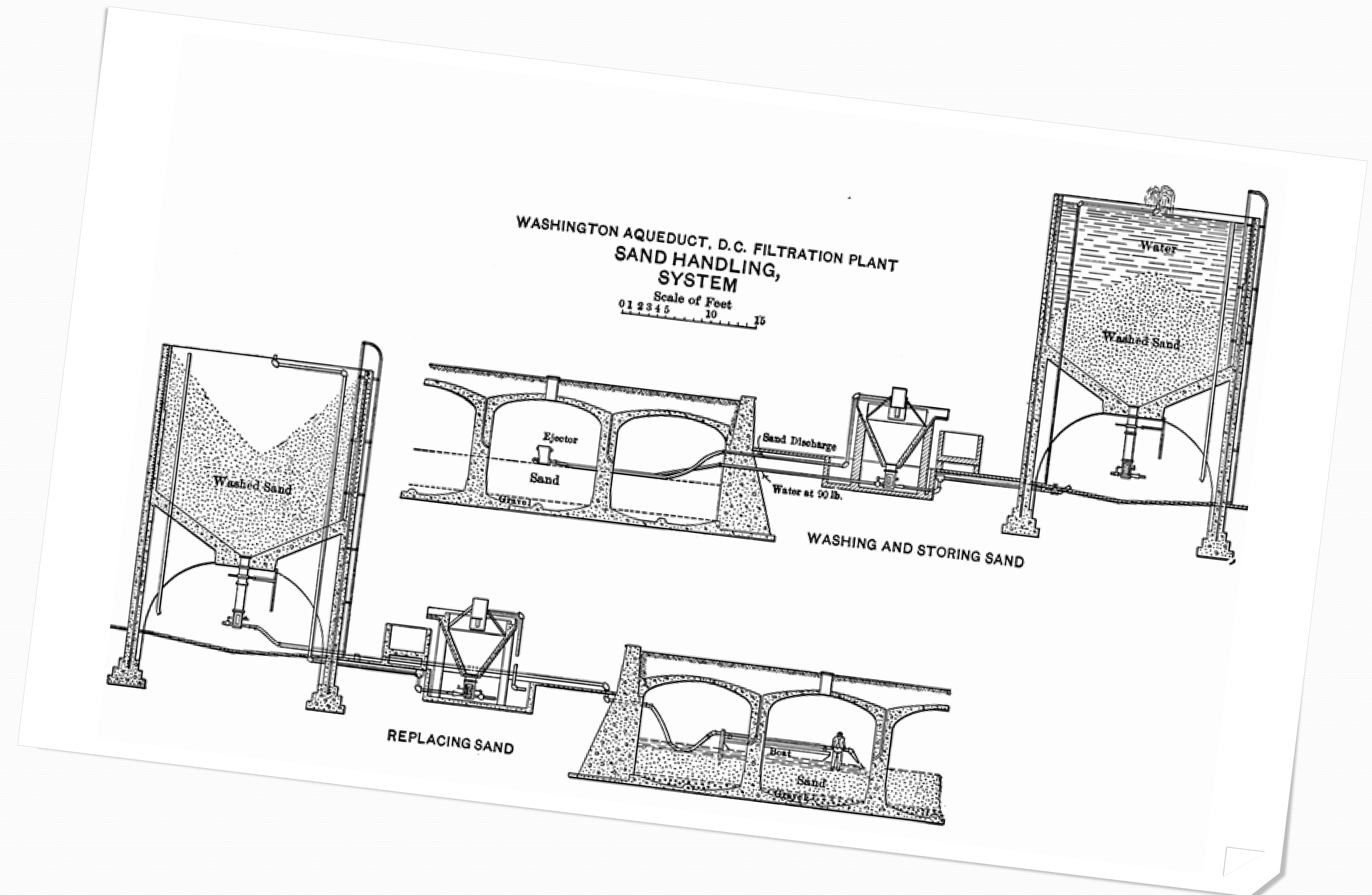
Less dependency on existing reports, especially multiple, manually combined reports

Happy management, so much so, that we have requests pouring in for new dashboards



## The method of filtering data is similar to that of filtering water.

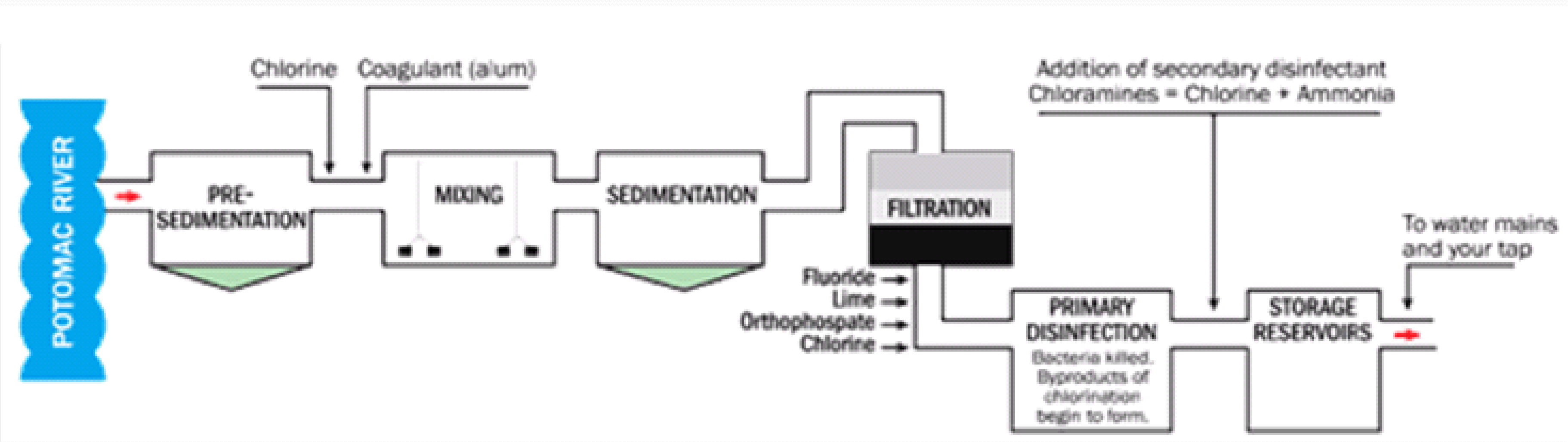
A lot of planning and structure has to be built in order for your process to work properly.



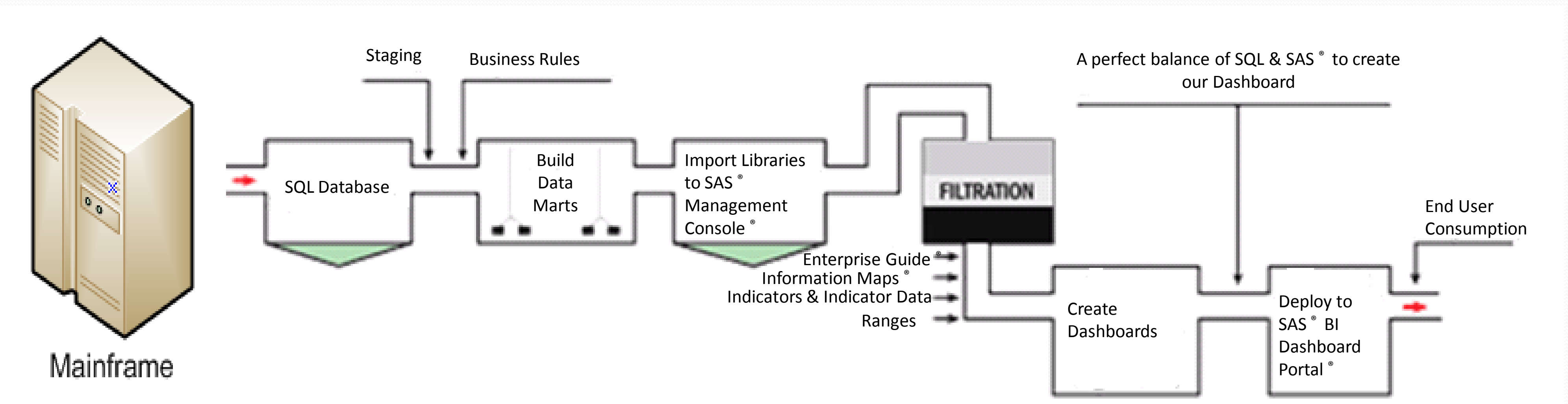


# Here's how we filtered our data at VACU

Water filtration diagram



Data filtration diagram





# Tributaries of our Dashboard

On the main page of our internal SharePoint site, employees can see an up-to-date dashboard that when clicked on takes them directly to the SAS® BI Dashboard portal®. There is no need for them to sign into the Dashboard portal once there, as we linked our internal Active Directory account to a group in Management Console. We were able to achieve single sign on with SAS® 9.4.



After an employee clicks on the dashboard link in SharePoint, they are taken to our Landing page dashboard. From here they have the option to click on three additional dashboards. The two dashboards on the right, show the detail of the initial dashboard found on SharePoint. If the employee clicks on any of the below dashboards, they are then presented with a more detailed, and historical view of the data.



The dashboard drills down and shows activity per location. The end user can choose the department from the drop down box. This box controls all dashboards on this page. Once again we used the super cool slider bar.



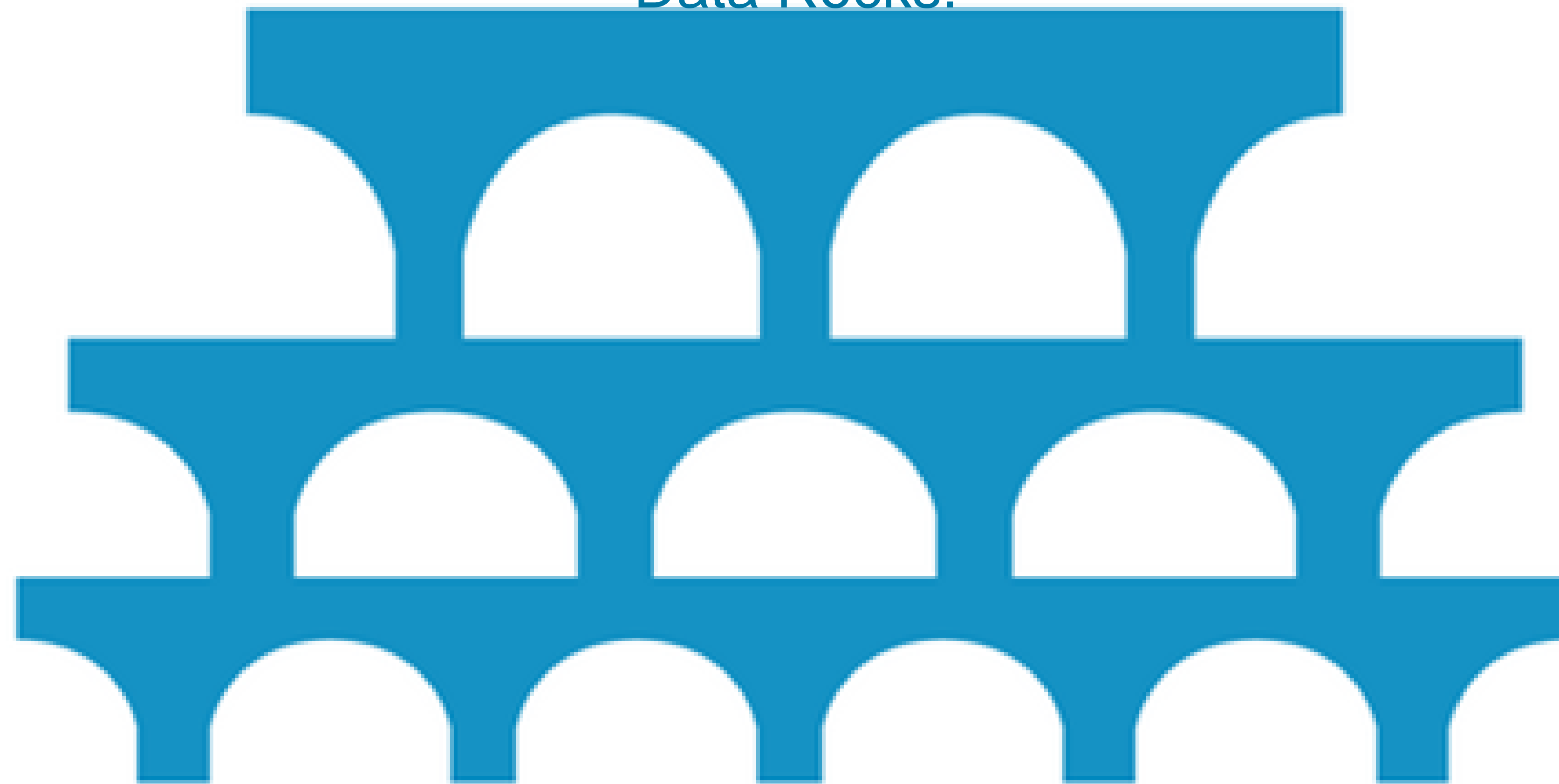
The dashboard above shows the user actual versus projected with historical trending.



This dashboard drills down to show monthly data with a year's worth of historical data. The slider bar updates the entire page. This is one of my favorite dashboards. Color represents how close the number is to projected. If yellow it is below, light green means close, and dark green means the projection was exceeded.



## Data Rocks!



## Conclusions

- Some areas of the CU waited until the beginning of the next month to find out how their department had done for the previous one. The dashboard solution we built for them gives these managers a daily look at how their area is doing, allowing them to be more proactive. This really helps with trending and member service based on historical data.
- Through this process of discovery, we have also built a stronger connection with the business units. They see us as a partner that wants to help them succeed, and that we are here when needed.
- It is critical to have extensive training and practice or someone with SAS® experience on your side when you start out brand new to its tools.
- Dashboards are not a side project and maintaining them is a critical task to their success.

## References

- *Building Business Intelligence Using SAS Content Development Examples*, Tricia Aanderud & Angela Hall
- SAS BI Dashboard 4.3: User's Guide
- *Information Dashboard Design*, Stephen Few
- <http://www.nab.usace.army.mil/Missions/WashingtonAqueduct.aspx>
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