

# Beehive Industries

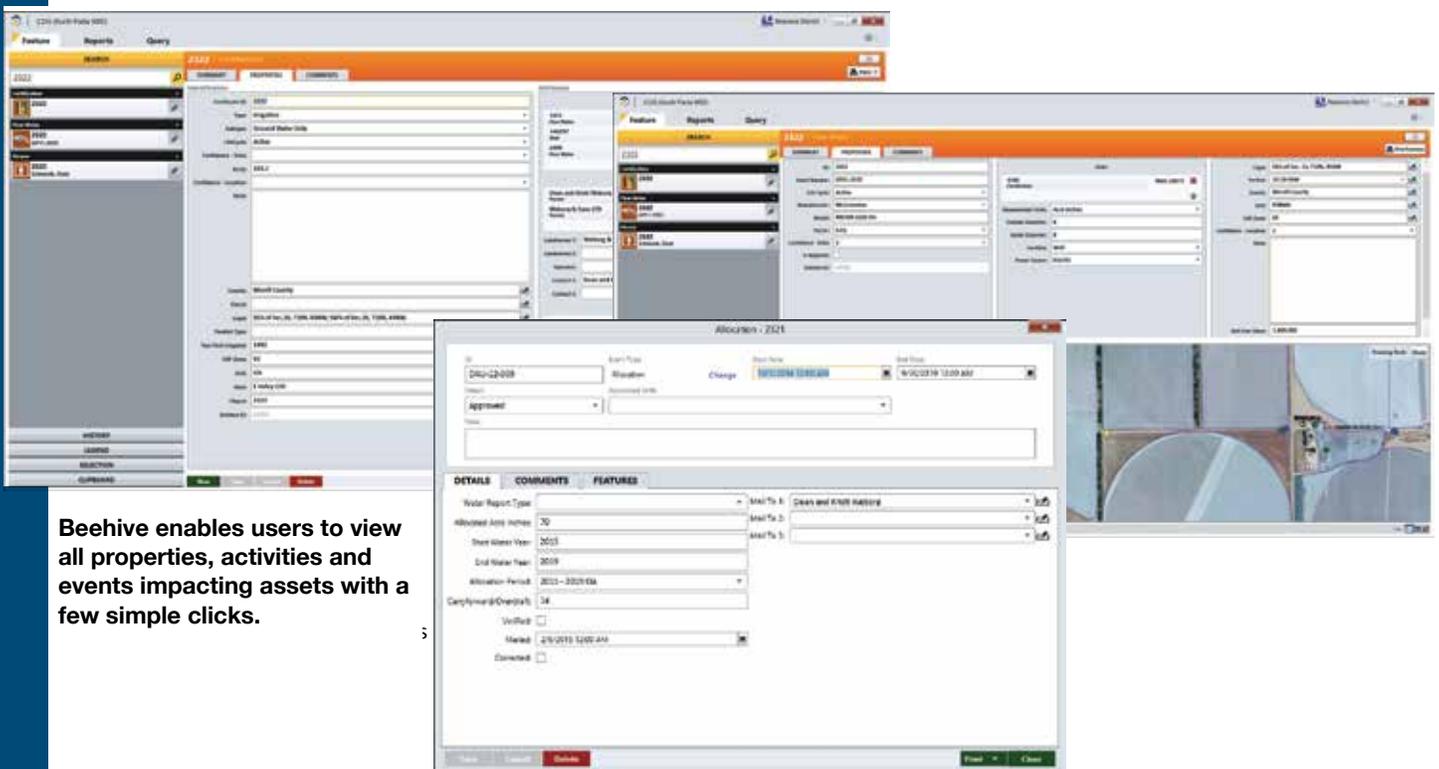
Since 2011, Beehive Industries has been providing asset and infrastructure management software to state and local governments, resource districts, utilities, and the construction industry. Beehive software gives its clients the ability to track, manage, and document all the activities and events that affect their physical assets. The company has broken down those functions into several specific modules, which can be licensed together or separately.

Headquartered in Lincoln, Nebraska, Beehive's client base now covers 21 states. Beehive has successfully applied its software platform beyond its original market of municipalities to irrigation and special-use districts, as well as to private industries in the Midwest. The company works with more than half of Nebraska's Natural Resources Districts (NRDs) and several other similar organizations throughout the Midwest. The NRDs provide watershed-level management of the state's rivers and natural resources, and according to Mike Schwab, product manager at Beehive Industries, the NRDs have been a great fit for Beehive's asset management platform. Many of the NRDs have collected a mass of historical data but generally have no ability or useful application to effectively aggregate and distill the data into valuable information. This inability, coupled with staff shortages and minimal experience, makes it difficult to apply a solution with any consistency.

The Beehive team works with the NRDs to prioritize opportunities, collect and convert data, and deliver solutions that manage information essential to irrigation, conservation, and water districts, including the following:

**Static water levels**—According to Mr. Schwab, users can record the water levels of a particular well as frequently as needed; generally, these times correlate closely with the start and stop of irrigation seasons. The Beehive software then aggregates the data and compares them against surface elevations. Beehive enables users to produce site-specific or district-wide well hydrographs with a set of standard reports without having to aggregate that information manually and continuously customize inconsistent reports. The resulting hydrographs can be displayed as seasonal reports or year over year. Beehive also preformats all of the data for state-required water level reporting.

**Flow meter management**—Beehive works with the NRDs to help provide management for all of the flow meters within the area. The two primary functions include water use recording and flow meter maintenance. Beehive provides a platform to record and document any maintenance request from meter owners specifically for districts that provide flow meters to producers within their bounds. For example, if a producer notices a broken meter cover, he or



Beehive enables users to view all properties, activities and events impacting assets with a few simple clicks.

she can quickly document the request in Beehive, and the work order is automatically generated and assigned for completion. The field staff can then document the completion of the work order, along with any supporting documentation, through the Beehive platform. Districts also have a solution to document water use via flow meter measurement. The meter information can be entered in a variety of ways: (1) physically reading the meter, (2) self-reporting, or (3) through an automated meter reading software and integrated into Beehive's tools. Once the data are in the system, Beehive provides the NRD with a real-time ability to query, map, and visually analyze the data to aid future water use decisions.

**Water allocation**—NRDs have adopted Beehive to use as a district-wide accounting system for water use. District managers can oversee water allocations directly within Beehive by using water level data, flowmeter information, and any other irrigation management data sets together to assign allocations based on water use and other geologic and natural factors in a particular area. Mr. Schwab describes it as “one managed system where [managers] can access all that is going into their allocation database, generate reports, and also give producers feedback on how much water they have remaining in that particular growing season and across their entire allocation period.” The Beehive platform ensures that there is one version of the truth for water allocation data and empowers NRD managers with powerful information to support more informed decisions and future operations.

## OUT OF THE BOX AND ONLINE

As a fully hosted SaaS solution, inclusive of native mobile applications for iOS and Android, the platform may be implemented out of the box, getting clients up and running quickly and with little or no capital expense. It can adapt to address specific workflows or unique reporting requirements. The framework provides the users with simple, built-in query tools that allow for both property and event data to be leveraged for queries. This enables the user to have very granular access to the data without the need to be a master of relational database management software.

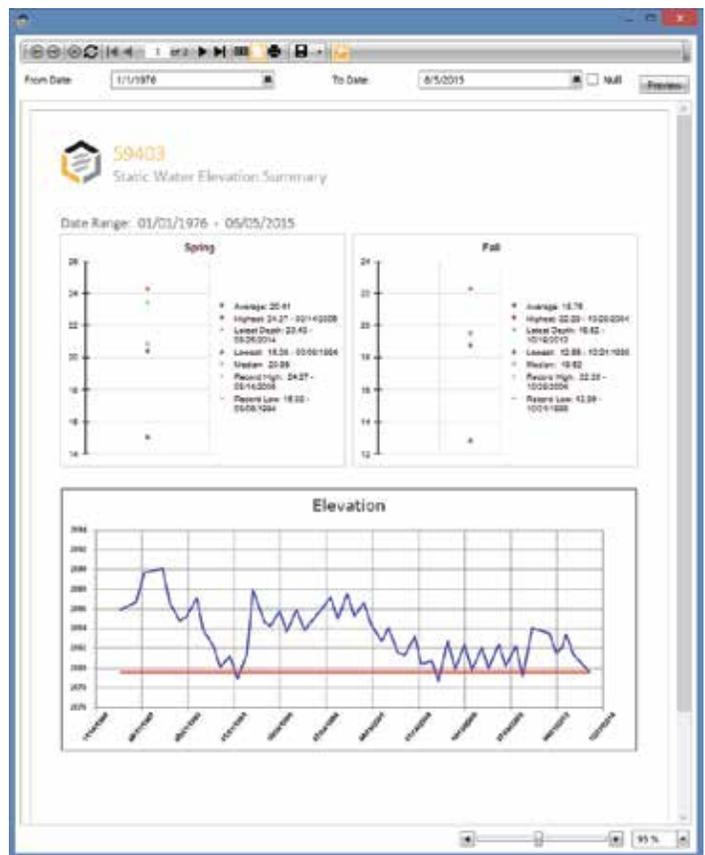
Seeing that most NRD customers manage their assets across larger, less populated, and less connected areas, the luxury of a reliable Internet connection does not always exist. Beehive can effortlessly accommodate these customers, as it works in both a connected and disconnected environment. When a connection is available, everything entered into the system is uploaded automatically. Where there is a limited or no connection, the data upload will create a queue or cache of the information, restarting and uploading automatically once a connection is established, to ensure that the district can

operate from one up-to-date version of the truth.

Within Beehive, there is a baseline of data that includes aeriels and other geospatial information from the districts GIS system or other available datasets, but the platform also has the capability to create and edit spatial data in a completely stand-alone environment. So, according to Mr. Schwab, “If you don't have a great inventory of your canals, but you do have high-resolution aerial photos, you could digitize canal data right on top of the aerial photos within the Beehive platform.” So as the user creates new information, he or she also helps to build the district's GIS and infrastructure data.

## DATA-DRIVEN WATER MANAGEMENT

Mike Schwab thinks that giving producers the ability to access or report their own data is going to become a standard practice in water management. “There is already an expectation to have real-time, online tracking and reporting data. We provide a platform that can enable producers to do just that. The service to the district's producers is greatly improved and credited back to district leadership, while Beehive enables that same leadership and their teams to easily consume a wealth of information and focus on their priorities, policy initiatives, and operations, not whether they have the right data.”



**Beehive aggregates disparate data negating the need for multiple data sources and manually building custom reports.**