

Terasen Inc., a Canadian corporation, headquartered in British Columbia is the parent company of the Terasen Gas Companies, the principal natural gas distributor in the province of British Columbia. Terasen Gas's stated mission is the safe and efficient delivery of energy to nearly one million customers.

The Terasen GIS team is comprised of almost 100 members in departments that include Engineering & Drafting, Central Mapping, Location Records, AM FM Completions and Special Projects.

Ron DeCaigny leads the GIS group at Terasen. This group is responsible for creating and maintaining geographic records of all of Terasen's physical assets including pipes & stations, land and right of ways. Some of the tasks that this group performs include:

- Post process GPS data & verify GPS coordinates
- Import GPS coordinates & update in AM/FM
- Provide maps, reports & GPS Coordinate Lists of pipeline assets, lot lines, right of ways for Terasen crew, planners, contractors & OGC
- Through the BC One Call system provide asset location information to outside customers such as contractors, municipalities and individual property owners

Piet Nooij is the Production Process Manager, Business & IT Services. His role is to provide GIS expertise and technical support to Terasen's GIS Department, as well, managing the acquisition and addition of aerial imagery, and surveys.



*Precise cadastral data helps to ensure the accuracy of digs in urban areas.*



One of the many projects in progress is the updating of the transmission pipeline location data.

Terasen needed to develop a common landbase with which to overlay transmission and distribution systems. The locations of over 30,000 kilometers of the gas systems piping in the province were originally based on relative locations. The challenge with this approach was that the actual pipe location can be out by tens of meters. The lack of relative locational precision often results in costly digs in urban areas.

The daunting nature of this project was exacerbated by the fact that Terasen had to deal with 185 communities in order to adjust their existing pipeline data to match the landbased data. As a founding member of ICIS, Terasen was able to leverage that relationship to eliminate the requirement to work individually with each community. ICIS maintains data sharing agreements with each of the 185 communities that Terasen needed to work with. Terasen's founding member role with ICIS resulted in a one-stop-shop in this process, saving a significant amount of time and effort.

With the landbase updated through ICIS, the next piece of the puzzle was to determine the actual locations of the transmissions systems and pipelines. As part of Terasen's system integrity program, pipelines are "pigged" to determine not only their correct GPS coordinates but to provide a snapshot of pipeline condition and to identify construction defects or damage.

With 50% of the areas completed, Terasen is working to replace the remainder of the inaccurate landbase in the next couple of years with the assistance that ICIS can provide by supplying accurate landbased data.

*"Terasen Gas has a strong relationship with ICIS and utilizes the Society to access landbase and facilities data to improve and streamline our business processes. The level of collaboration that is facilitated by ICIS enables Terasen's GIS staff to work more effectively."*

*Piet Nooij, Production Process Manager  
Business & IT Services.*