

Leak Detection From Space

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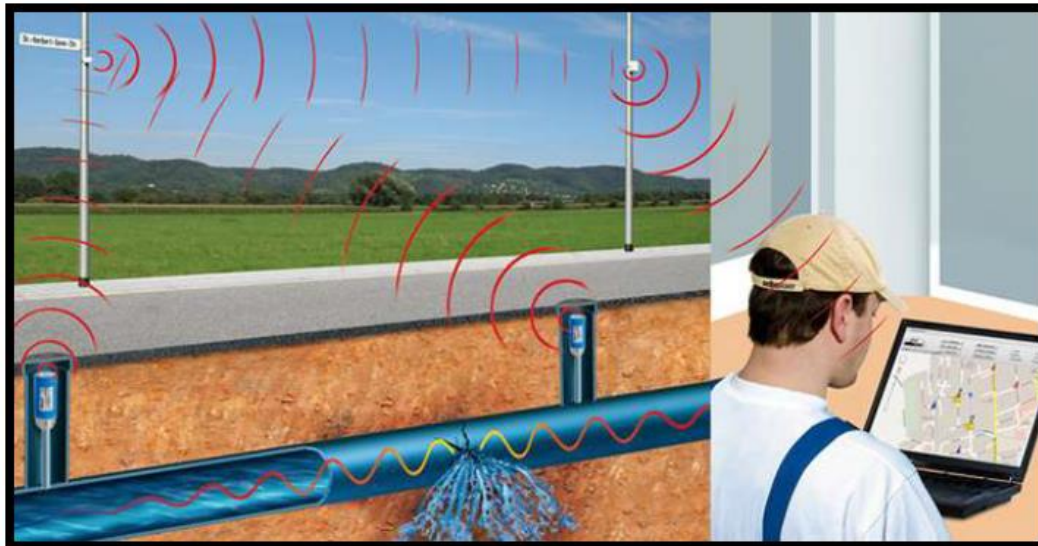
Sacramento Suburban Water District

Pro-Active Leak Detection Service

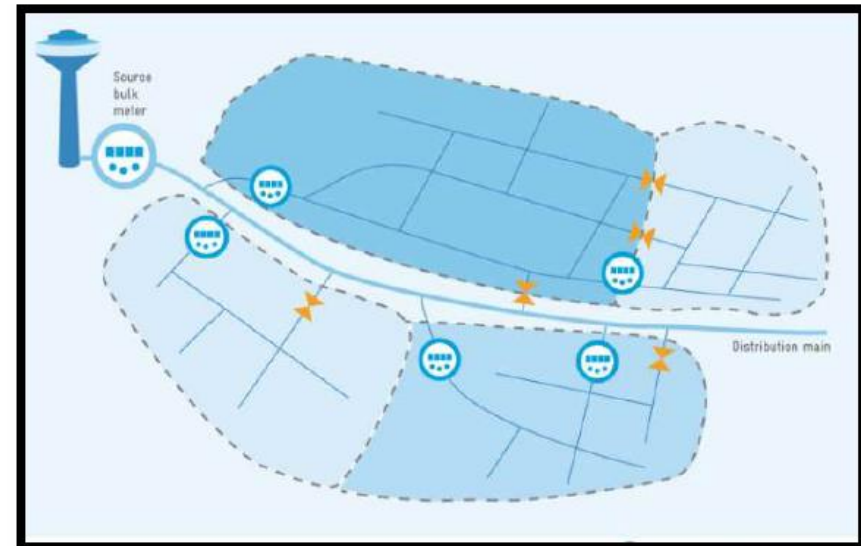


Reactive Approach

Smart Water Networks



District Metered Area

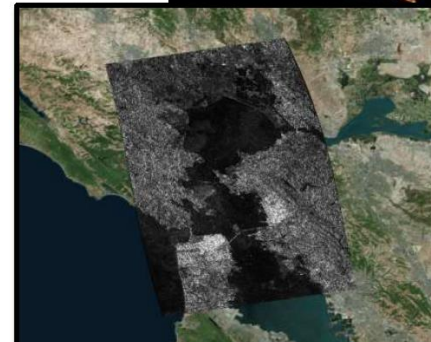


Proactive Approach

HOW DOES A SATELLITE WORK

Advantage of satellites

- Continuously orbiting the earth
- Capability to carry sensors
- Frequent coverage
- Data is relatively affordable because one pass covers a large area
 - One image = 1,350 sq mi (3500 sq km)

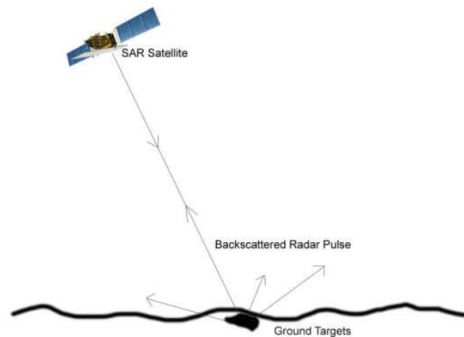


Proactive Approach

SAR SATELLITES

Synthetic Aperture Radar (SAR) sensor

- All weather capability
- Day/night operation
- Sensitive to dielectric properties
- Subsurface penetration



- Any soil type
- Any Pipe Type
- Drinking Water Infrastructure
- Finds Background Leaks
- Mains, Services, customer side leaks

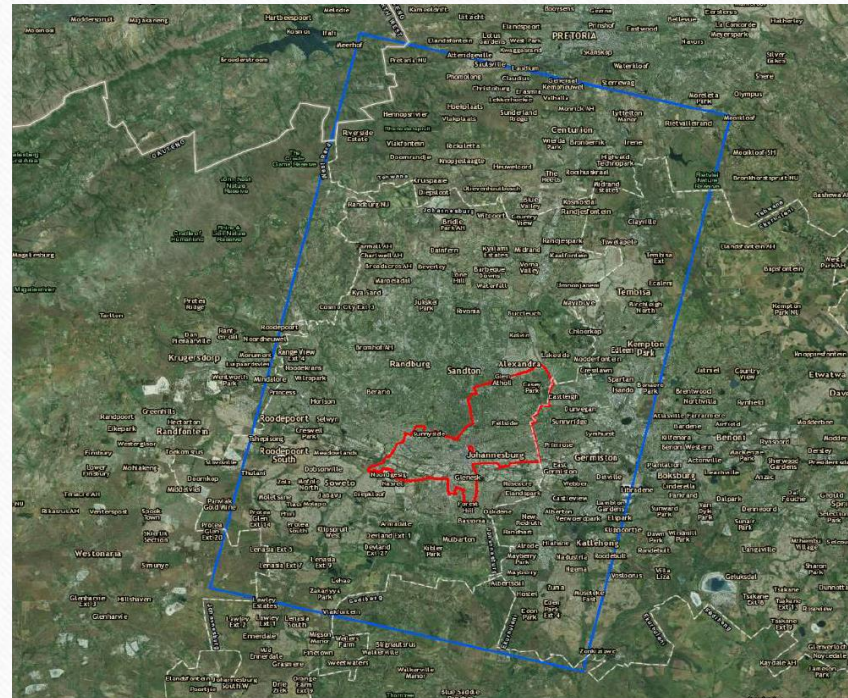
Proactive Approach

Drinking water, which is treated with chemicals such as chlorine, has a specific “signature” when in contact with soil

Utilis’ algorithm combines this signature with other factors to locate areas where drinking water has saturated the soil.



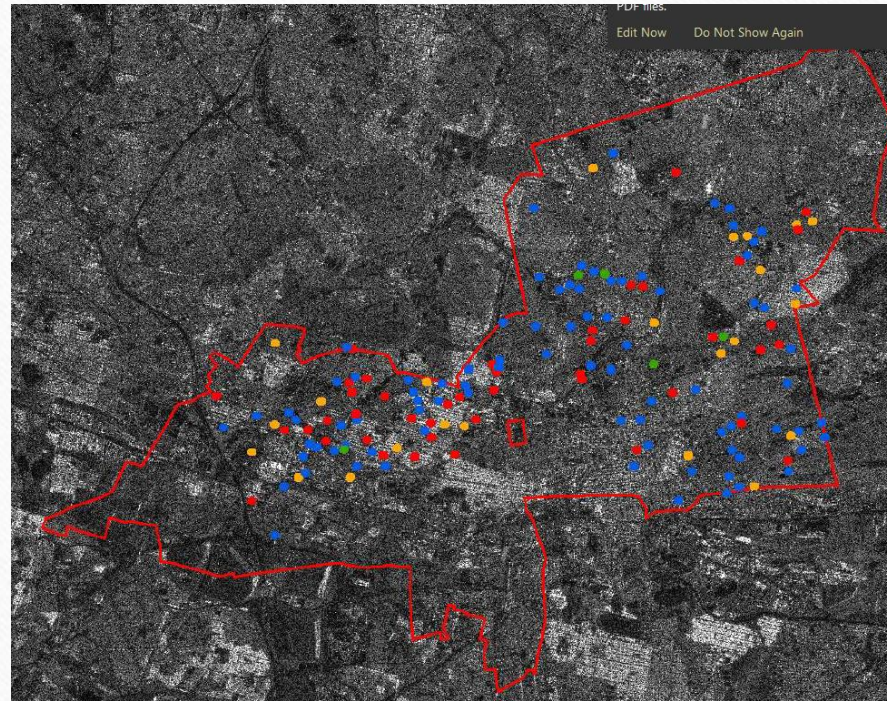
Proactive Approach



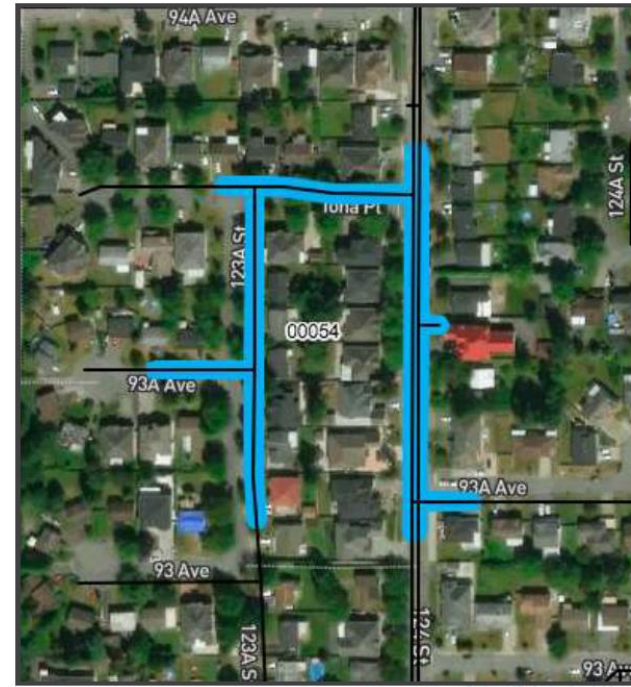
Proactive Approach



Proactive Approach



Proactive Approach



Questions?



Proactive Approach
