I&T WATER SHOTS

Halifax Water 5-Year Strategic Technology Roadmap

Strategy & Implementation Plan

Project Identification			
Project Title:	I&T 5-Yr Strategic Portfolio Project		
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0.3	Final Draft	Feb 10, 2023	
1.0	Final Document	March 2, 2023	

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1.0 EXECUTIVE SUMMARY

Information & Technology (I&T) services has developed a strategy and a new portfolio of programs and projects to guide the organization's transformation for the next 5+ years. Visible through the projects and programs in the I&T Water Shots Dashboard, the strategy supports Halifax Water's purpose to supply and safeguard sustainable, high-quality water services. Through the rollout of technology projects, Halifax Water will drive innovative initiatives that support and sustain industry best practices, focus on public health, customer service, fiscal responsibility, workplace safety & security, asset management, regulatory compliance, and stewardship of the environment.

In 2022, after a thorough environmental scan, more than 70 interviews were conducted in all business areas. As a result, over 150 business opportunities were brought forward and proposed as projects for the 2023-2028 period. Of the 150 initiatives, more than 100 business cases were created and will require planning and coordinated resource engagement to realize their outcomes. Additionally, over 30 really good ideas (RGI) were brought forward, these are initiatives which can be done today with I&T current skills and capabilities and require three (3) meetings or less to achieve completion.

I&T Water Shots Themes

Throughout the interview process with staff across all business areas, themes began to emerge and come together as the foundation for I&T Water Shots. These bold and ambitious ideas will be game changers for Halifax Water once achieved. The five (5) I&T Water Shots are:

Data Everywhere	Data (SCADA, PI, GIS, etc.) securely available from any device to all Halifax Water staff to help make decisions on resources and priorities.
Collaboration Anytime	Ensure Halifax Water is operating securely as One Team, One Water.
Employer of Choice	Recognized by our peers and community as a "premiere" employer.
Total Xperience	💧 Connects customers and employees via multiple secure technology platforms to create a seamless experience. 💧 Educates customers and staff about technology & trends. 💧 Leads digital transformation for the organization and its customers.
Ideal Auditing	Be an Auditors "Dream" client by readily meeting auditing demands.

OUR STRATEGY

*THINK BIG * BE INNOVATIVE * BE AMBITIOUS * BOLD IMAGINATION*

2.0   I&T WATER SHOTS

2.1   VISION

I&T Water Shots support the Halifax Water purpose to supply and safeguard sustainable, high-quality water services. Delivered through the new I&T mindset that Xperience Inspires Transformation, I&T Water Shots ground all aspects of our work and our values of Relationships, Innovation, Accountability, and Protection. I&T Water Shots align to our business plan's objectives around People, Health, Safety & Environment, Financial & Regulatory Accountability, and Operational Excellence.

Water Shots is a defined strategy with an implementation plan to achieve the delivery of projects and programs driven by:

- Roadmap Carry-over – continuing inflight IT roadmap projects.
- Cyber Footprint – advancing Halifax Water cyber footprint security commitment.
- Mandated Initiatives – high priority initiatives from GM, Directors, or other entity (Board, NSUARB).
- Positioning for Growth – establishing core solutions for future growth and innovation.
- Critical Infrastructure – replacing or upgrading technology to improve our service, reliability, and quality. for sustaining our current and future needs.
- Retention & Attraction – ensuring we retain and attract the right talent, reducing our turnover.

2.2   OBJECTIVE

Water Shots initiatives are critical to the successful execution of the business strategy. Water Shots objectives enable:

1. Data Everywhere – data is available from any device to all Halifax Water staff to help make decisions on resources and priorities.
2. Collaboration Anytime – ensuring Halifax Water is operating as One Team, One Water.
3. Employer of Choice – recognizing our peers and community as a "premier" employer.
4. Total Experience – connecting customers and employees via multiple technology platforms to create a seamless experience.
5. Ideal Auditing – readily meeting internal and external auditing demands.

2.3   BENEFITS

The benefits of implementing I&T Water Shots are expected to be achieved beginning in Year 1 and continuing throughout the delivery of the programs and projects outlined in the I&T Roadmap. The benefits include:

- Advance how we work and be more efficient for our customers.
- Be more connected and collaborative in a way that fosters innovation and greater engagement with our internal and external customers.
- Harness and make sense of information that provides value for the utility and our customers.

2.4 GOVERNANCE

The I&T Water Shots is owned by the ITSPC, and the intended audience is all Halifax Water members including leadership and employees regardless of their technology expertise.

The Senior Manager, Information & Technology Services, will have a team that are responsible for collaborating with the business, bringing forward new ideas as business cases or really good ideas (RGIs), to innovate and refresh the I&T strategic roadmap. This team will facilitate the process to conduct environmental scans, collect initiative details, conduct reviews of proposed projects and crafting intake documents for the purpose of assessing, prioritization and ranking projects that meet and support Halifax Water objectives.

The team is also responsible to socialize the strategic roadmap throughout the Halifax Water organization each year.

## 2.5 REALIZING I&T WATER SHOTS – THE 'HOW'

Beginning in November 2022, a series of interviews were conducted that resulted in an environmental scan and collection of proposed programs and projects. Each item was reviewed against the Halifax Water Business Plan. Research and best practices for strategy development were observed and a meeting was held with Gartner to gather additional input to the creation of the I&T Strategy.

The project team led by Senior Manager, Information and Technology Services, gathered the proposed projects into themes. The details of each project, or collection of projects into a program, was supported with an intake document – an adapted Capital Project Summary Report (CPSR). These CPSRs were circulated for feedback from the initiator or I&T Managers. Finally, the collection of proposed projects was aligned to Halifax Water enterprise prioritization matrix (EPM) where the projects were ranked for priority in the roadmap schedule. The ranking included an assessment of interdependencies with other projects, resources required to deliver the projects as well as preferred timing to begin each project.

Collected Information

- Conduct Internal & External Innovation scan
- Review of Innovation Strategy, Conferences, HW Business Plan
- Collect list of potential projects
- Gathered Quick Wins

Created & Defined Roadmap

- Create an I&T Strategy
- Align & Rank the projects
- Schedule the projects
- Identify Team to Deliver
- Outline the Support Team

Next Steps

- Approval of the Strategy & Plan
- Communication Roadshow
- Changing Mindset & Behaviour
- Execute the Plan
- Realize the Benefits

2.6   KEY INPUTS & APPROVALS

The resulting roadmap provides a 5-year timeline of the program and projects. The roadmap was reviewed with the ITSPC and approved by the Board. Further engagements with business units are planned during implementation and rollout.
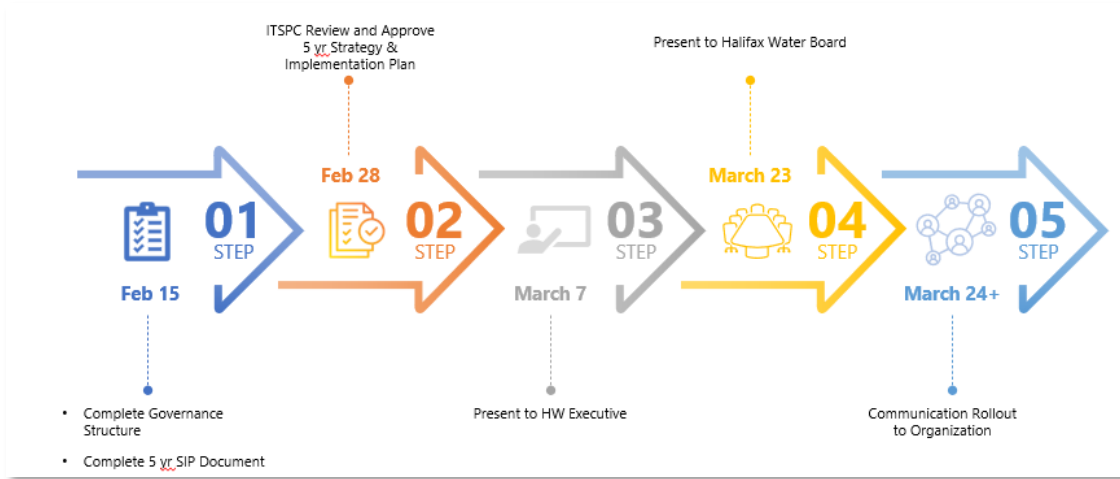
3.0   I&T WATERSHOTS – 5 YEAR ROADMAP

3.1   OVERVIEW

The I&T Water Shots Roadmap is delivered using PowerBI for an interactive user experience. The roadmap is available to all Halifax Water employees.
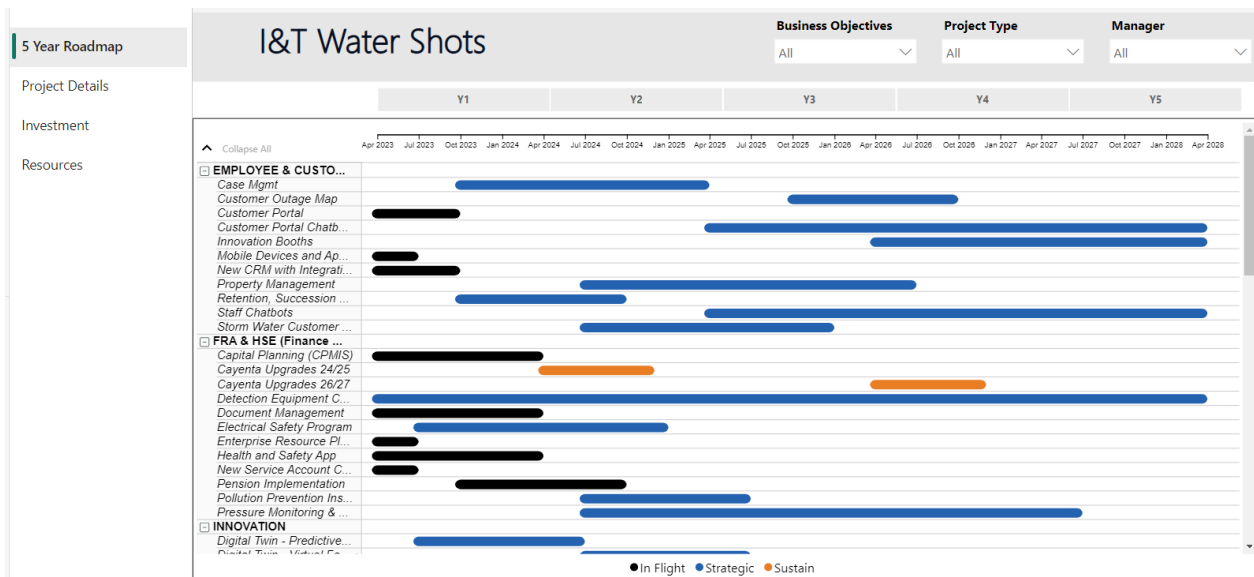
3.2   KEY FEATURES

The fundamental change to the 5-year roadmap is the introduction of interactive features and filters through a dashboard. Users can filter by business objective, project type, manager, and year. Each project in the roadmap includes summary detail and full details are readily accessible with hyperlinks to project intake/assessment documentation found in the project details tab.

The dashboard goes further to display investment details enabling a user to quickly digest and understand financial commitment by business objective across the five (5) year roadmap. Operational resource needs have also been displayed informing executives of the demand for staffing levels as projects become operational.

Altogether, the I&T Water Shots Roadmap pulls together the portfolio details that are made visible through the dashboard allowing for greater awareness, insight and proactive decision making.

3.3   INTENDED AUDIENCE

The intended audience and users of the I&T Water Shots roadmap and corresponding Strategy and Implementation plan include all Halifax Water staff. The 5-yr Roadmap tab is available to all Halifax Water staff and the project details, investment and resources are only available to Halifax Water Executive and I&T Leadership.

4.0   IMPLEMENTATION

4.1   GOALS

The goal of implementing I&T strategy is to:

- transition from project activities to live engagement enabling Halifax Water staff to use the roadmap tool, templates, and processes.
- socialize the tool, templates and processes and demonstrate adoption by key stakeholders and business units.
- support Halifax Water staff to learn to access and use information and tools.
- receive feedback for enhancement of the tools, templates, and processes.

4.2   IMPLEMENTATION approach

- **Pipeline Post announcement** – an announcement of the launch of the I&T Water Shots Roadmap is planned for April 2023. The project team worked with the HW Communication team to announce the launch of I&T Water Shots.
- **Conference / roadshow** –planned for late March 2023 to introduce and review the I&T Water Shots Roadmap of projects to Halifax Water.
- **Communications, forms and supporting tools** –designed and launched to aid the standardized intake of new ideas, display of projects in the roadmap and collect/store project summary information in a central location. These tools will be shared with Halifax Water staff. Quick links and easy access instructions will also be shared.
- **Workflows** –created to guide users in their engagement with the communication items, forms, and display tools. The workflows and supporting process instructions will be reviewed during the Conference and Roadshows. Halifax Water staff will be instructed where to find and how to access the workflow for future reference.
- **Dedicated Teams** –organized and staffed to complete operational actions including idea intake review and assessment, prioritization, and assignment as well as the ongoing business environmental scans and future annual planning activities. Resources are assigned to administer I&T Water Shots tools, templates, and processes.

4.3   IMPLEMENTATION TEAM

The implementation of the I&T Water Shots is led by Stephanie Leblanc, Senior Manager Information and Technology. As needed, other members of Halifax Water I&T Services may be asked to contribute to the implementation of the tools, templates, and processes.

4.4   ROADSHOW DATES AND LOCATIONS

To socialize the I&T Water Shots roadmap, and provide a period of questions & answers, a round of roadshows is scheduled for March and April 2023.

Session 1	Session 2	Session 3	Session 4
March 24th	March 24th	March 30th	March 30th
9:30am – 11:30am	1:30pm – 3:30pm	8:30am – 10:30am	2:30pm – 4:30pm
455 Cowie Lunchroom	455 Cowie Lunchroom	2 Park Ave Boardroom	2 Park Ave Boardroom

Session 1	Session 2	Session 3	Session 4
March 31st	March 31st	April 5th	April 12th
9:30am – 10:30am	1:30pm – 2:30pm	8:30am – 9:30am	2:30pm – 3:30pm
Teams	Teams	Teams	Teams

Additional sessions with business units:

- Manager meetings
  - Engineering
  - HR Meeting
- Follow up with any managers that haven't been informed of the plan.

4.5   SUSTAINING I&T WATER SHOTS

The 2023-2028 I&T Water Shots roadmap is an iterative document. Throughout the delivery timeline, Halifax Water teams and business units will continue to request projects or raise other ideas to solve business problems. Environmental factors, industry influences and emerging best practices in the utility industry will also contribute to new demands, new technology requirements and tools, new skills, and knowledge standards.

The governance documentation referenced in the I&T Water Shots Strategy and Implementation plan outlines a smooth and transparent process to identify new ideas as well as assess and review proposed initiatives before including them in the I&T Water Shots roadmap. A supporting workflow diagrams the process.

5.0 PLANNING FOR THE CHANGE

5.1 UNDERSTANDING CHANGE

Looking at the change in different ways to create a picture of what I&T is trying to create. By doing a deeper dive into each of the transition layers and identifying the impact on the organization which will map out the functions that help or hinder the change. The following diagram outlines the transitions that describe what's changing – outcomes, proposed change, behaviours, and mindset. Often, the most challenging parts of implementing change are not as it appears on the surface. There are elements (i.e., aspects of the organizations and the people) that also need to change to achieve the change at the surface.
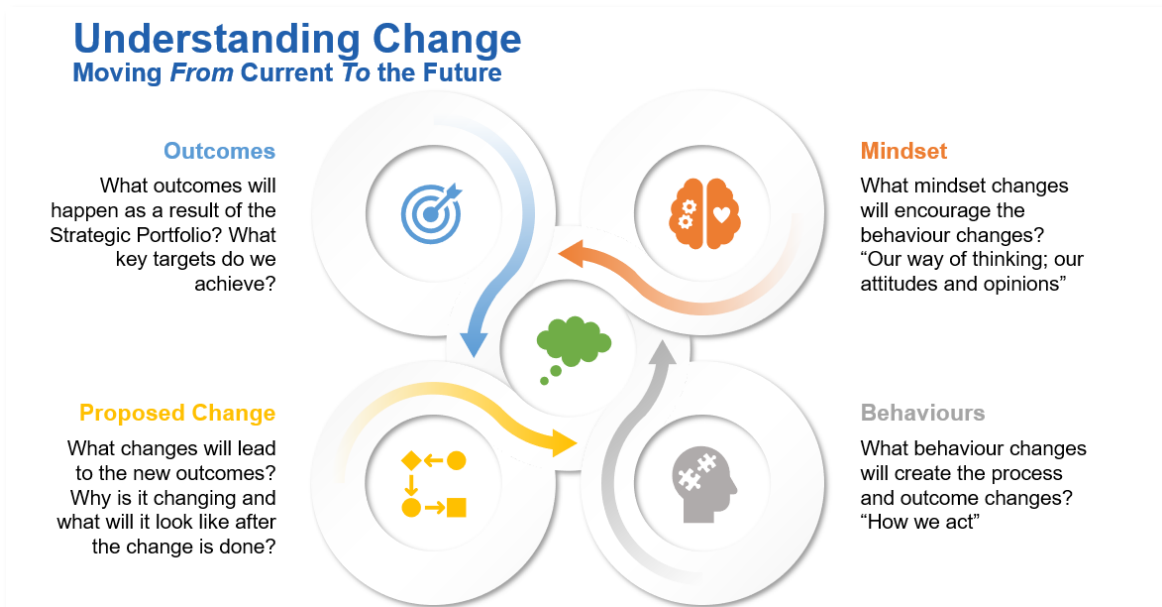
5.2   CHANGE ANALYSIS

Using this "layers of change" tool, an analysis can be completed to examine each of the layers in more detail to understand where energies and time should be focused when rolling out the change. On the surface, updating the current IT Roadmap seems straightforward – adding a new set of projects and programs. However, diving deeper allows for further investigation into the processes, behaviours, and mindset changes that are critical to making the change come to life and become ingrained into the organization.

In doing a change management assessment and plan, the change analysis provided key themes that were considered when defining the Strategic and Implementation Plan and how it would be communicated to those stakeholders who are impacted by this plan – the I&T Services team and all other departments and business units.

| Layer	From	To
Outcome What **outcome(s)** will change?	• 5-year I&T Water Shots roadmap • Static / Current Organizational structure	• Refreshed & updated strategic portfolio. • Re-aligned I&T Services department to support the delivery of the strategic portfolio along with day-to-day operational responsibilities. • More innovation and leading-edge technology initiatives. • Be seen by the business as their partner.
Proposed Change What changes (e.g., process) will lead to the new outcome? What's changing and why? What will it look like after the change?	• Respond to daily operational needs. • Deliver projects in the roadmap	• Continuous learning and analysis of trends. • Moving from a responsive model to a service model, reaching out to clients, building relationships, and being more interactive to see how I&T can help them. • Formalizing IT Service Management • Formalizing IT Architecture • Formalizing Innovation • Formalizing Evidence-Based Decision Making • Formalizing the Total Experience and Human Design • Performance Plans to understand what people want to work on and not let them stagnate when they want to new challenges
Behaviour What **behaviour** changes will create the process and outcome changes? "How we act"	• Deliver consistent IT solutions on demand, responding to specific needs. • Respond to the demands of the organization in a reliable, efficient manner. • Technical focus rather than a business focus • Demonstrate operational and technical skills and knowledge (more familiar with technology than with the business)	• Build relationships with other business areas. • Demonstrate accountability for decisions and actions. • Engage more with the business to proactively bring solutions to the organization. • Develop our business acumen (using business case language and benefits realization); Continue to ask, "Did we deliver the results we said we would deliver?" • Willing to "Dig In" to find answers. • Joy in brainstorming challenges and trying new ways, even if they fail. • Think Big, take Moon Shots • Creative problem solvers in finding possibilities; Collaborate and co-create solutions.

Layer	From	To
		• Inform yourself with the latest research, best practices, and technologies.
Mindset What **mindset** changes will encourage the behaviour changes? "Our way of thinking; our attitudes and opinions"	• We are not part of the business. • Reactive rather than proactive	• Passion for what we do as HW and I&T • We are part of the business; we support our business partners to be more effective and efficient in their jobs. • View challenges as opportunities; Open to the possibilities that technology provides. • Willing to try new & different ways of achieving the same goal and value the process over the result. • Innovative problem solvers • Continuous transformation / growth • Recognize improvements even when the goals haven't been met. • Curiosity, learning in any form and transferring knowledge back to organization. • Wanting to say "How" not "No" • Thinking outside the box for solutions; Creative, limitless thinking • Not impossible but "I'm (It's) Possible". • Efficiency mindset, process improvement all the time • Leadership understands how much technology is 'enmeshed' in their day-to-day ways of working at Halifax Water

In order to drive towards the outcomes of delivering on the I&T Water Shots and continue to provide technology that fulfils our team's purpose – Our purpose is to supply and safeguard sustainable, high-quality water services – requires changes in behaviour and mindset. Moving to a collaborative, "I'm possible" and build a team environment focused on creativity and limitless thinking are key to supporting the Total Xperience concept.
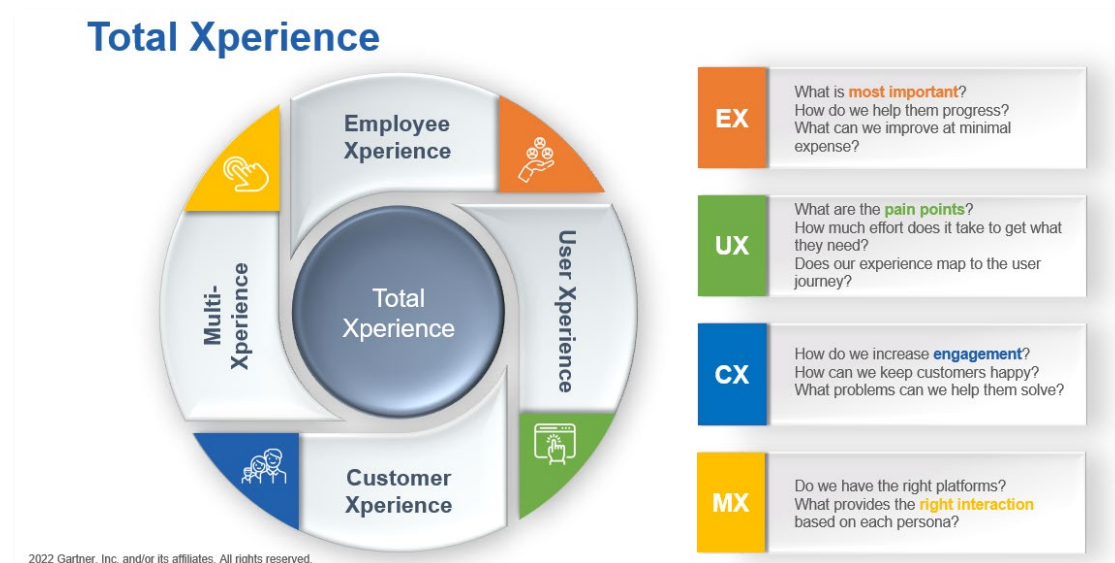
5.3   COMMUNICATIONS & ENGAGEMENT PLAN

A complete Communications & Engagement Plan is defined in the I&T Portfolio Strategy - Communication & Engagement Plan.pptx document. A summary is outlined below with the complete details covered in the plan.
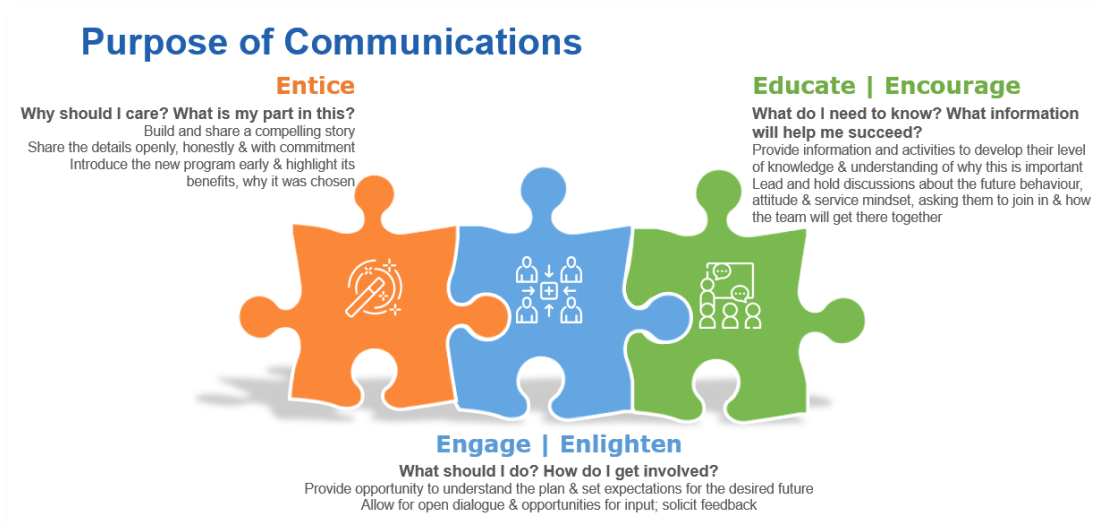
To rollout the new I&T Water Shots Change Management Plan, the following are recommended tactics to be executed. In general,

- Define key messages and target audience(s)
- Craft your story
    - o   Incorporate the brand to bring your team into the story
- Tell your story
- Be ready for questions

1. **Xperience IT Conference** (roadshow)

   The conference will be a series of sessions throughout Halifax Water to build awareness and understanding as well as outline how I&T plans on achieving the end goal, especially within the I&T team.

2. I&T Portfolio Canvas

A simple, one-page canvas summarizes the key themes of the change – clearly articulating the team's purpose that is the linchpin for creating a positive Total Xperience and moves us closer to achieving our Water Shots.