

Integrated Rainwater Management Plan

Presentation to Committee of the Whole (January 28, 2019)



LINKAGES TO OTHER DOCUMENTS AND INITIATIVES



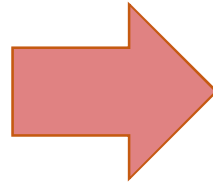
RELATIONSHIP BETWEEN LAND USE, INFRASTRUCTURE, AND ENVIRONMENT



EVOLUTION IN MUNICIPAL RAINWATER MANAGEMENT



Runoff Conveyance

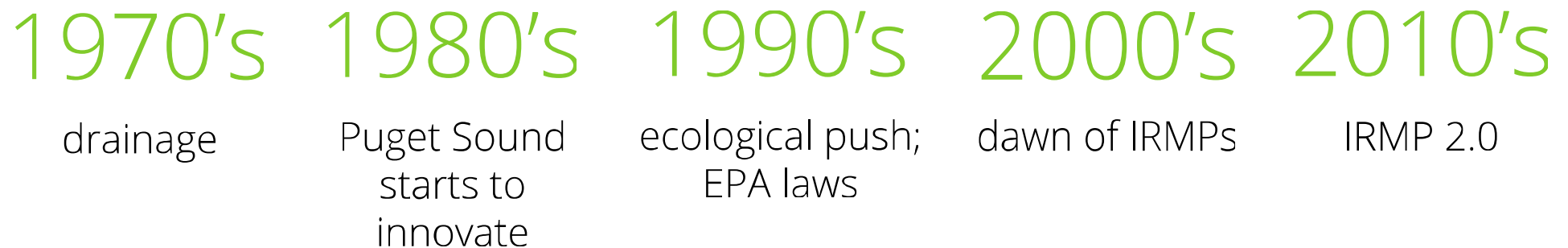


Holistic management of
systems and processes
(built and natural)



EVOLUTION IN MUNICIPAL RAINWATER MANAGEMENT

“ *historic-drainage solutions are insufficient and transfer problems downstream to the detriment of our environment and water resources* ”



why

do an IRMP?

WHY DO AN INTEGRATED RAINWATER MANAGEMENT PLAN?

Satisfy municipal responsibility for *sustainable* service delivery

Satisfy Provincial and Federal regulations for habitat protection

A response to community *values, needs, and priorities*



WHY DO AN INTEGRATED RAINWATER MANAGEMENT PLAN?

“ENACT PERFORMANCE-BASED BYLAWS TO PROTECT WATERSHEDS AND RIPARIAN HABITAT AREAS, AND TO CONSIDER ALTERNATIVE STORMWATER MANAGEMENT PRACTICES.”

- The City of Courtenay's OCP

“GREEN INFRASTRUCTURE PROVISIONS SUCH AS RENEWABLE ENERGY, GREEN ROOFS AND/OR INNOVATIONS IN STORMWATER MANAGEMENT THAT COULD CONTRIBUTE TO BOTH GHG REDUCTIONS, PILOTING OF TECHNOLOGICAL INNOVATIONS AND COMMUNITY EDUCATION”

- 2010 OCP amendment



what

is an IRMP?

A comprehensive look at policy, procedures, regulations and infrastructure to guide community growth in an environmentally respectful and sustainable manner.



Must be pragmatic and achievable -
grounded in realities of implementation.

Consider implementation and operations
throughout IRMP process.



Need champions and stakeholder buy-in.

Education.

(people often don't support what they don't understand)

A living document.



how

to do an IRMP?

DATA AND INVENTORIES OF AN INTEGRATED RAINWATER MANAGEMENT PLAN



Hydrometric



Rainwater infrastructure



Hydrogeology / geotechnical



Land use



Water quality and benthic
community sampling



Riparian corridor



Biophysical
(Aquatic / Terrestrial)



ANALYSIS AND EVALUATION OF AN INTEGRATED RAINWATER MANAGEMENT PLAN



Hydrologic and hydraulic analysis



Ecological health



Natural hazard assessment



Land use alternatives



Erosion potential



Rainwater management
alternatives



INTEGRATED RAINWATER MANAGEMENT PLAN PROCESS

STAGE 1

What does
Courtenay
have?

STAGE 2

What does
Courtenay
want?

STAGE 3

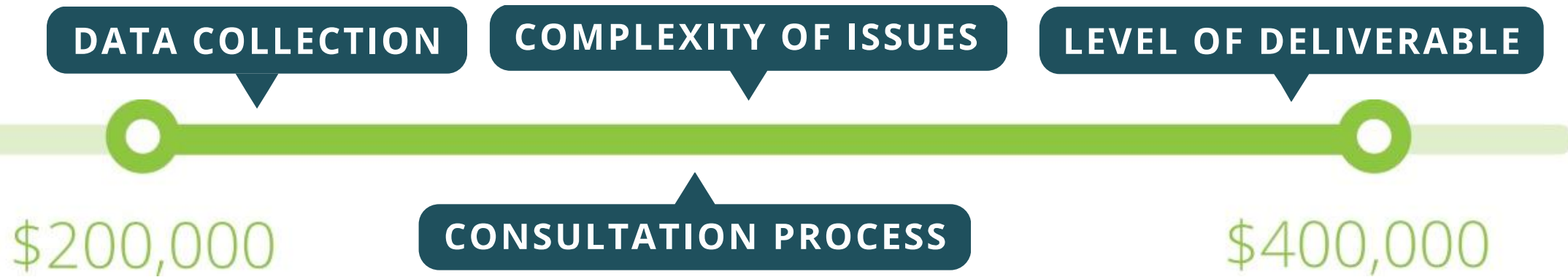
How does
Courtenay
put the
IRMP into
action?

STAGE 4

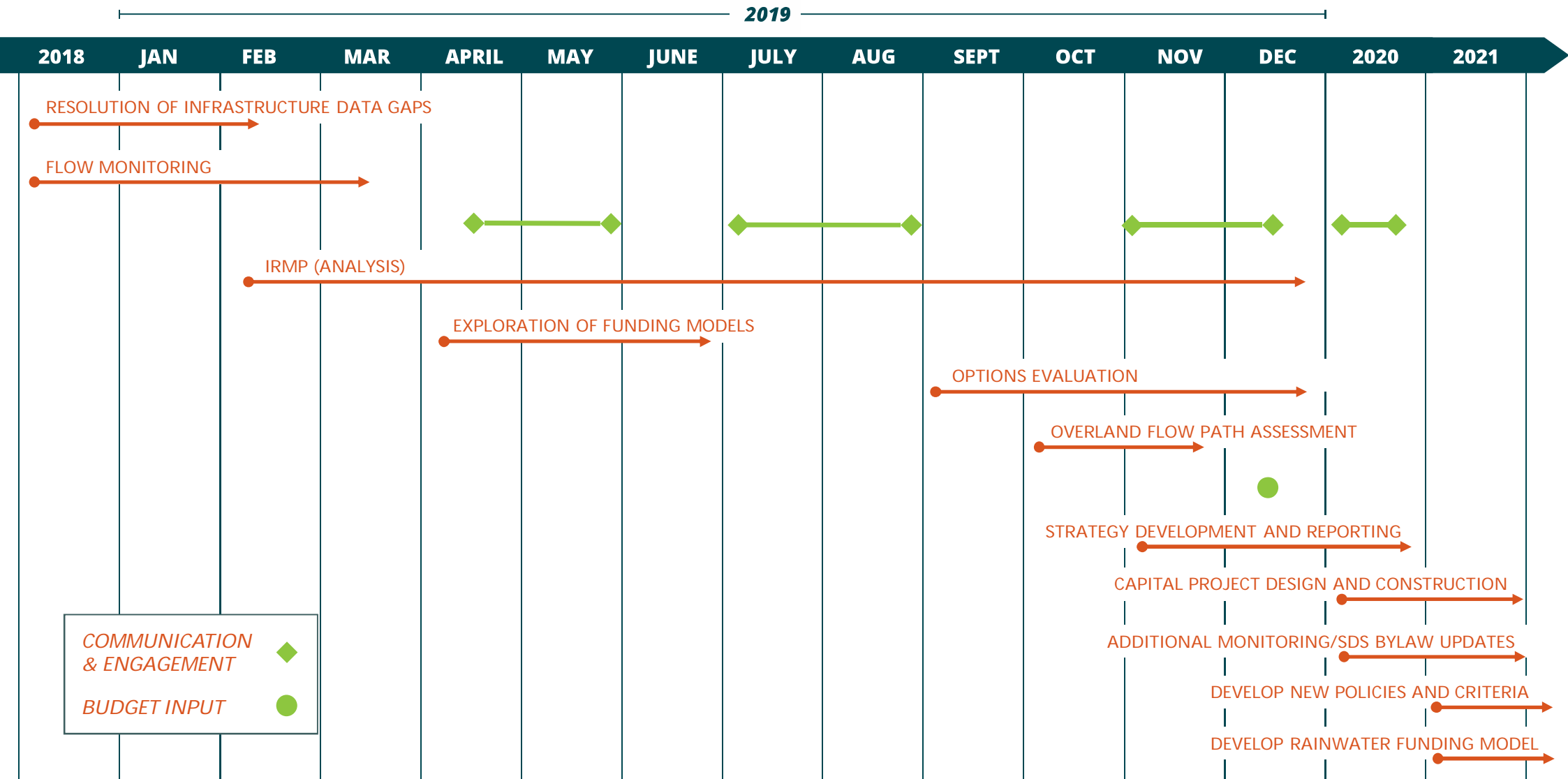
How does
Courtenay
stay on
target?



TYPICAL FINANCIAL RANGE OF AN INTEGRATED RAINWATER MANAGEMENT PLAN



SCHEDULE AND MILESTONES



BUDGETING

TASK	PRELIMINARY BUDGET			
	2018	2019	2020	2021
Hydrometric Monitoring, Data Collection and Raw Data Reporting	\$7,000	\$42,000		
IRMP Launch and Consultation Strategy Development	\$25,000	\$24,000		
Review and Assessment of All Data		\$5,000		
Communication and Engagement		\$22,000	\$8,000	
Resolution of Data Gaps		\$10,000		
IRMP:				
Integration of Environmental and Habitat Data, Watershed Health Data Collection and Evaluation		\$50,000		
Integration of Soils and Hydrogeology Information		\$30,000		
Stream Erosion and Watershed Health Reconnaissance		\$20,000		
Expand Model to City-wide; All Pipes , Evaluate Several Scenarios		\$100,000		
Overland Flow Path Assessment		\$50,000		
Strategy Development and Reporting			\$50,000	
Preliminary Exploration of Funding Models			\$10,000	
Develop Rainwater Utility Framework			\$25,000	
Development of New Policies and Criteria			\$30,000	
Placeholder – Additional Monitoring/SDS Bylaw Update			\$50,000	\$50,000
Total	\$32,000	\$361,000	\$165,000	\$50,000



Communication and Engagement

PURPOSE OF PUBLIC ENGAGEMENT

Communications and engagement plan will engage stakeholders and public to **understand values, current issues and potential actions** that will inform an Integrated Rainwater Management Plan for Courtenay.

Consultation is integral to ensuring that an Integrated Rainwater Management Plan **meets the needs of the community**.

The engagement strategy outlines how the City will engage **community groups, key stakeholders, City staff, other governments, institutions, First Nations and the public** in the planning process.



PRELIMINARY STAKEHOLDER ENGAGEMENT

Early engagement of 34 stakeholder groups occurred to help inform the design of the engagement process. 18 responses were received.

1. What are your organization's top priorities?

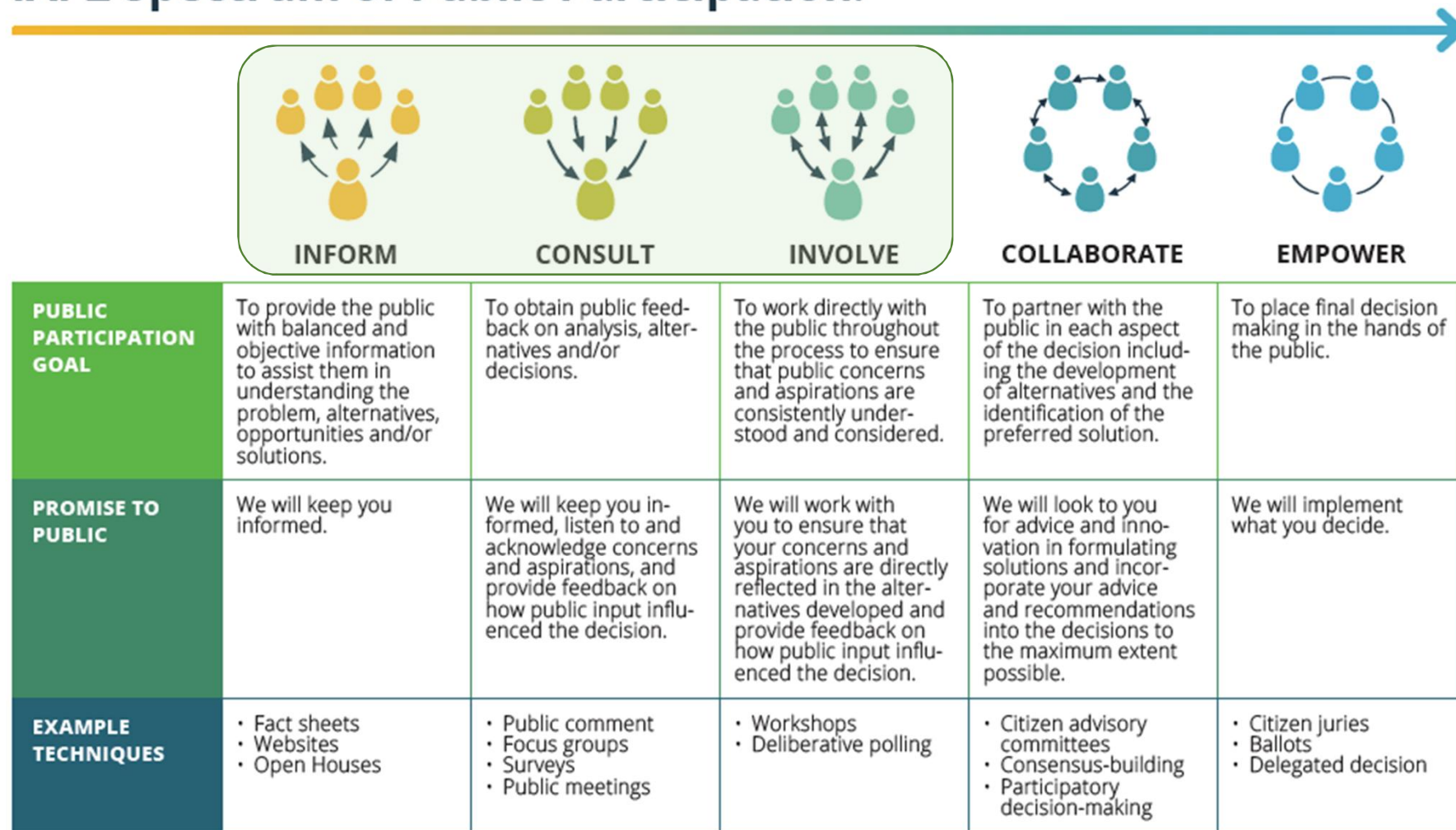
2. How do you/your organization want to be engaged?

3. Who else should we talk to?



PUBLIC PARTICIPATION SPECTRUM

IAP2 Spectrum of Public Participation:



PLANNING FOR SUCCESS

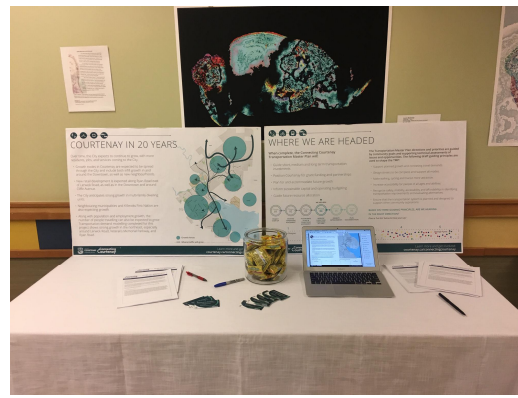
PUBLIC INFORMATION AND COMMUNICATIONS

- Educate the community about the importance of rainwater management and infrastructure and the role it serves in supporting quality of life, health, business and environment
- Develop umbrella messaging related to the various related initiatives and community initiatives underway to manage rainwater in watershed (e.g. ISMP, MNAI, dyke replacement, Kus-kus-sum)
- Make rainwater management understandable and accessible to citizens by using plain language, using multiple channels and making it interesting.
- Communicate progress throughout stages of plan development and demonstrate how public input was considered at each stage and is reflected in draft plan.

PUBLIC CONSULTATION AND INVOLVEMENT

- Engage community stakeholders and agencies interested and affected early and continually in the process
- Aim to raise awareness, understanding and involvement amongst property owners, agencies and stakeholders that may be impacted (e.g. capital projects, policy changes, funding models etc.) by proposed changes to how rainwater is managed in future.
- Create opportunities for citizens and stakeholders to provide input at various stages of rainwater management plan development
- Recognizing that the City of Courtenay cannot manage rainwater in isolation, seek to understand work underway in the community, demonstrate partnership and build capacity within the community for innovative rainwater management practices in the future.

ENGAGEMENT TOOLS AND TECHNIQUES



STAGES OF PARTICIPATION

STAGE 1: INITIATE THE PROCESS: What do we have?

January - May 2019

- Develop communications and public engagement plan to support key stages of plan development. Engage key stakeholders early to inform future phases and development of education and communications materials

STAGE 2: SET THE PLAN DIRECTION: What do we want?

June to October 2019

- Design and develop information, tools and activities to support consultation activities about environmental objectives, levels of service, preferred investment areas, outcomes and options.
- Current system and future trend information will be presented. Broad ideas about opportunities to improve rainwater management will also be sought, including implementation realities and potential trade-offs.



STAGES OF PARTICIPATION

STAGE 3: EVALUATE OPTIONS: How will we get there?

November 2019 – March 2020

- Present potential strategies and options for achieving principles, goals and targets, including new policies, programs, projects, reporting and collaboration opportunities. Potential impacts and trade-offs of various options and strategies will be accurately presented including cost, program, policy or service implications.
- Draft plan will be shared with public and key stakeholders with ample notice period for review and comment.

STAGE 4: IMPLEMENTATION: Communicate approved Integrated Rainwater Management Plan

TBD – mid 2020

- Timed with City Council adoption, communicate approved plan and make widely available.
- Integration with the SDS Bylaw.



questions?