



# ASTOTIN CREEK

RESILIENCY STUDY

## COMMUNITY ENGAGEMENT SUMMARY

May 2022



# Territorial Acknowledgment

*Strathcona County honours the past, present and future First Peoples of this land. We acknowledge that this land has embraced and nourished the Cree, Métis, Blackfoot, amongst many others, for generations. We recognize Strathcona County is within Treaty Six Territory and the homeland of the Métis Nation of Alberta, Region Two and Four.*

*Strathcona County has an inherent responsibility to foster healthier relationships with Indigenous Partners. We will strive to respond to the Calls to Action as outlined by the Truth and Reconciliation Commission.*

*Strathcona County is close in proximity to Enoch Cree Nation (maskêkosihk), Ermineskin Cree Nation (neyaskweyahk), Louis Bull Tribe (kisipatinahk), Michel First Nation, Montana First Nation (akamihk), Papaschase First Nation, Samson Cree Nation (nipisikopahk), and Saddle Lake Cree Nation (onihcikiskwapiwinihk).*

*Furthermore, the geographic boundaries of Strathcona County includes parts of Regions Two and Four of the Métis Nation of Alberta, and are near the Elizabeth Métis Settlement, Fishing Lake Métis Settlement, Buffalo Lake Métis Settlement, and Kikino Métis Settlement.*

*We recognize the importance of allying with First Peoples and taking steps to foster a healthier relationship. As such, we will demonstrate **manacitôwin**, the Cree word meaning respect for each other.*

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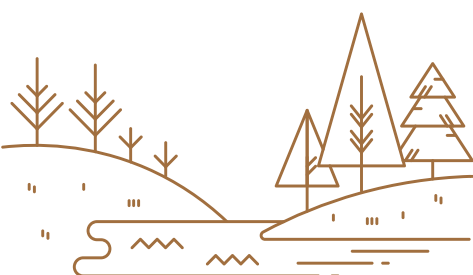
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*Astotin Creek and its tributaries have experienced three major flooding events in the past ten years. These events have caused flooded farmland, damaged county roads and threatened homes and industrial infrastructure within the Astotin Basin.*

# 1 Summary of Phase I Engagement

In Summer 2021, Strathcona County ("the County") engaged the public and stakeholders via a project website, virtual engagement sessions, newsletters, an online survey, and one-on-one conversations. **The engagement efforts were to inform the public and stakeholders about the Astotin Creek Resiliency Study, to better understand the impacts and perceptions of flooding and drought on residents and industry, and to understand residents' values associated with the creek.**



## 1.1 What we heard

The following details summarizes What We Heard from Phase I Engagement.

### Key Topics

Over the course of the engagement efforts, three key concerns emerged. It was also noted that the historical flooding of the creek has had multiple impacts on the land and its use for decades. The key concerns identified are:

#### Flooding

- » Accessibility issues
- » Flooding issues since the 1990s
- » Increase in flooding
- » Flood waters being pumped from one site to another
- » Impacts to agricultural lands
- » Flooding is natural

#### Development

- » Servicing pipelines is more difficult
- » Condition of dams, weirs, and culverts is concerning
- » Development (industrial, residential, and agricultural) has impacted the creek
- » Riparian areas – width/condition

#### Beavers

- » Concerns with Beaver impacts and control (e.g. to cattle)
- » Part of nature
- » Lands being affected by beavers:
  - » *Flooding (negative)*
  - » *Providing water for cattle (positive)*
  - » *Better well water (positive)*

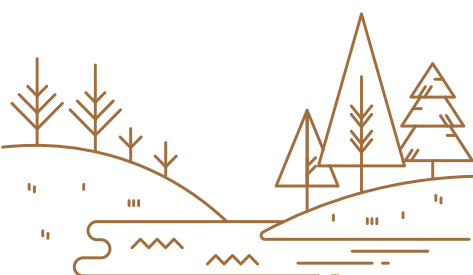
Flooding



Development



Beavers



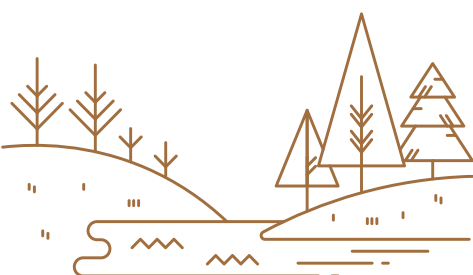


## 2 Phase II Engagement

### 2.1 What We Did Following Phase I

A What We Did (WWD) Summary lets engagement participants know how their input was considered and how it did, or did not, influence the final decisions. This is a key component to providing a transparent process. **The WWD summary will close the loop on the input provided, demonstrating how it was used and why it was used in the way that it was.** This summary aids in the building and maintaining of trust as their voices are demonstrably heard and it is made clear how project determinations were made.

Following the completion of the Astotin Creek State of the Watershed, Drainage Master Plan, and Phase I of public and stakeholder engagement, the Project Team developed a draft Resiliency Action Plan that provides recommendations for the County to manage various aspects of the Creek. The Resiliency Action Plan uses themed “Vision Statements” to group recommended supporting actions.





Healthy Ecosystem



Integrated  
Watershed  
Management



Resilient  
Infrastructure



Proactive  
Management



Flood and Drought  
Preparedness



Education, Engaged,  
and Empowered  
Public

## The Vision Statements are as follows:

### Vision 1: Healthy Ecosystem

- » Astotin Creek has a healthy watershed with rich vegetation and aquatic habitat, which supports biodiversity, maintains water quality, and provides flood and drought resilience.

### Vision 2: Integrated Watershed Management

- » Responsible land management within Astotin Creek watershed reduces flood and drought risk and protects ecosystems

### Vision 3: Resilient Infrastructure

- » Infrastructure in the Astotin Creek watershed is designed to reduce flood risk and enable adaption to climate change.

### Vision 4: Proactive Management

- » Strathcona County's programs and operations reduce flood risk in the Astotin Creek watershed.

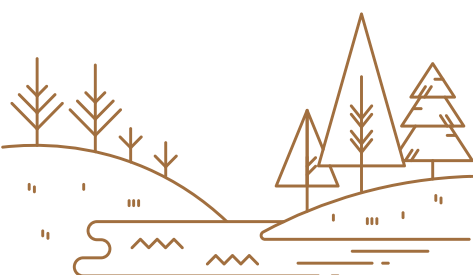
### Vision 5: Flood and Drought Preparedness

- » Strathcona County will invest in response planning to ensure staff and residents can deal with flood and drought events.

### Vision 6: Educated, Engaged, and Empowered Public

- » Strathcona County residents will have a shared understanding of flood and drought risks and feel empowered to participate in programs to manage risks.

Residents and stakeholders were invited to provide feedback on the Vision Statements and potential actions via two online engagement sessions and a survey. Details of the engagement approaches are provided below.

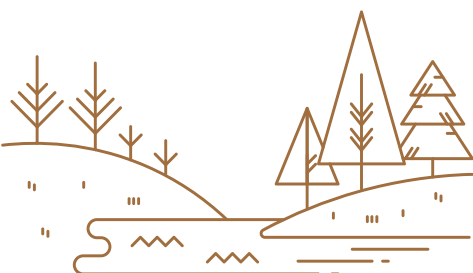




## 2.2 ENGAGEMENT & COMMUNICATION APPROACHES

The following describes the engagement and communication approaches for Phase 2, which focuses on the Resiliency Action Plan. The multi-faceted approaches were designed to inform the community in as many ways as feasible of the project, solicit feedback on the Resiliency Action Plan vision statements and proposed actions, and to garner their involvement. The engagement planning considered many factors including, but not limited to, the holiday season, internet accessibility and individual technological capacity, project understanding, and relationships (with the County and amongst the community). The broad outreach provided multiple ways for the community to get involved as per their capacity and interests. Unfortunately, due to COVID-19 health restrictions, in-person outreach and events were not possible. In order to compensate, key materials were mailed to the affected community members to provide all with the same and complete information. The County project manager received correspondence (email, fax, phone) related to the engagement effort.

**Two virtual Public Engagement Sessions were held in November 2021**



## Summary of Engagement Approaches



Many factors were considered, such as the point in the farming season



In-person outreach and events were not possible due to COVID-19



Key materials were mailed to the affected community members

## Phase II Engagement & Communications Approaches

## Completion Date

Road Signs – four locations along major rural routes in the north	May to November 2021
Public Engagement Newsletter	November 2021
Postcards providing project information and engagement opportunities (approximately 700 basin area residents & businesses)	November 2021
Social Media	November 2021
Public Engagement Calendar	November 2021
Stakeholder Engagement Invite Letters & Emails (78 letters)	November 2021
Stakeholder Engagement Package mailouts (78 packages + emails)	November 2021
Project e-newsletter	August 2021
Data Atlas	November 2021
Online Stakeholder and Public Engagement Session 1	November 23, 2021
Online Stakeholder and Public Engagement Session 2	November 25, 2021
Indigenous Engagement Virtual Meetings*	October 2021 - January 2022
Virtual Open House and Survey	November 23 - January 4, 2022

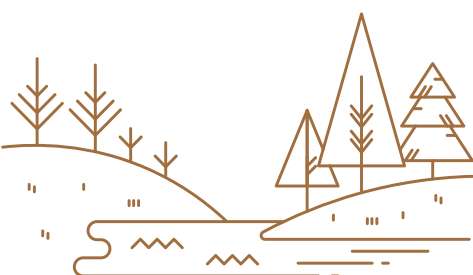
\* Comments from the Indigenous Engagement meetings are not included in this summary report for data privacy reasons



## Citizen Scientist Findings

In addition to the field program, there was also a citizen science initiative which allowed citizens to share wildlife observations via the iNaturalist and NatureLynx apps. **The Citizen scientist findings returned over 3300 observations of 231 different species within the original Astotin Creek watershed area including 4 amphibian, 5 arthropod, 89 bird, 116 insect, and 17 mammal species.**

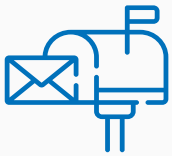
The launch of the iNaturalist and NatureLynx Astotin projects as part of the State of the Watershed assessment has started this process, by encouraging citizen scientists and residents to record their observations during their home, work, and recreational activities.



The project team utilized many communication approaches to reach the public.



Road signs



Individually mailed postcards



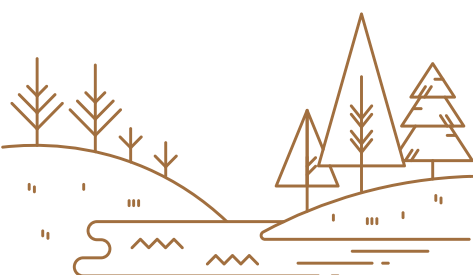
Online tools

## Facilitated Virtual Stakeholder Engagement sessions

Two virtual engagement sessions were held for stakeholders and landowners November 23, 2021, and November 25, 2021. Both early and late afternoon sessions were held to offer a choice of times to be as accessible as possible given participants' varied schedules. They were facilitated by WSP ENGAGE Team staff and included technical subject matter experts as well as the County project team. The virtual sessions used an online platform that replicated an actual in-person engagement event inclusive of a large room rendering, display boards, and a large project area map. The session started with a project presentation and then a question-and-answer period where participants could provide their feedback and ask questions of the experts available.

Copies of the session materials and a hardcopy survey were mailed to 78 adjacent property owners to provide all with the same information and to supplement the virtual sessions whether residents were able to attend or not.

Multiple methods were used to advertise for the project, the virtual sessions, and survey, including direct mail-outs to 78 adjacent landowners, 700 post cards sent via a mail campaign, plus publicly available newsletter postings, road signs, and the project website (see the Engagement and Communications Approaches Table above). The discussion provided valuable feedback for consideration.



### Virtual Stakeholder Engagement Sessions



Two virtual sessions  
were held



The virtual sessions  
used an online platform  
to replicate in-person  
engagement, including  
a large room rendering,  
display boards and large  
project area map



Copies of session  
materials were mailed  
to 78 adjacent property  
owners

## Survey (Online and Hardcopy)

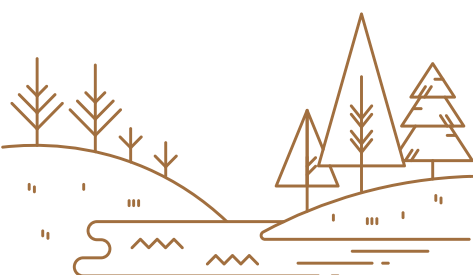
Complementing the virtual engagement sessions, a survey was provided to solicit further feedback on the Resiliency Action Plan, particularly the Vision Statements. **This feedback helped inform the prioritization of recommendations in the Resiliency Action Plan.** The survey was available online from November 23, 2021, until January 4, 2022. Hard copies were also provided in the project package mailout so that all adjacent landowners had the opportunity to complete it.

A total of **22 surveys** were returned over the course of the engagement period.

## Direct Feedback from Stakeholders

The County engaged in direct conversations with two industry stakeholders who did not attend the virtual engagement session to solicit input and address questions about the Resiliency Action Plan. Through the outreach (calls, emails), feedback was provided for the project team's consideration. This feedback is noted in the What Was Said summary provided to the County.

The stakeholder engagement efforts included the broader community, including the general community. A specific focus was to engage the 78 landowners who held property immediately adjacent to the Astotin Creek and the riparian area. Due to their proximity, historical experience, and intimate relationship with the Astotin Creek basin, their feedback was of particular value to the technical work.



# 3 PHASE II ENGAGEMENT OUTCOMES

## 3.1 WHAT WAS SAID

The What Was Said (WWS) summary describes the process used to solicit community input and includes the raw verbatim input received. This summary accurately and transparently reflects the comments provided. In the interest of privacy, only comments are recorded, not personal information. The verbatim comments are further themed in the What We Heard summary noted below.





## 3.2 WHAT WE HEARD

The following details the engagement approaches implemented as well as the themed and appropriately condensed the raw input (WWS). Comments heard through the survey and engagement sessions reflected both the Vision Statements (support, no support) and the overall current and future state of the Creek.

### What We Heard: Vision Statements

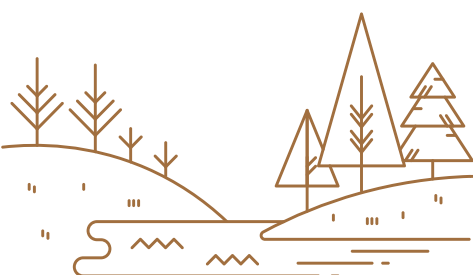
The key stakeholder feedback heard was:

#### Vision statement presentation (in survey)

- » More information is needed about potential actions for each statement, particularly around potential flood management programs

#### Vision statement prioritization

- » Strong polarization in the feedback between engineering solutions and ecosystem solutions (“build the creek/manage beavers to stop flooding” vs “a natural creek is best/return it to natural state”). Participants showed equal support for each vision.
- » Relatively low support for the public education activities outlined in Vision Statement 6 and for flood/drought preparedness actions outlined in Vision Statement 5

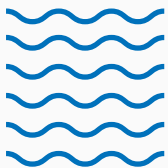


### Three Key Themes Emerg

Development and  
Infrastructure



Flooding



Costs and  
Responsibilities



## What We Heard: Key Themes

Three key themes emerged from stakeholders during the engagement session and survey input. While similar to the themes seen in Phase I (Development, Flooding, and Beavers), there was a clear emphasis on the costs of the proposed actions and who will be responsible. There was less focus on beavers specifically.

The key stakeholder feedback heard was:

### Development and infrastructure (increased and decreased development):

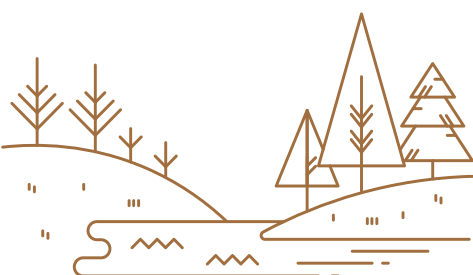
- » Development should not be restricted beyond current bylaws (increased development)
- » The Creek should be returned to a natural state and development should be restricted (decreased development)
- » Connectivity of riparian areas and water flow should be maintained from the Creek source (Elk Island Park) to the North Saskatchewan (decreased development)

### Flooding:

- » Flooding impacts landowners negatively and needs to be addressed
- » Debris should be removed from the Creek to increase flow. Programs should include ongoing debris management.
- » Engineered solutions (culvert replacement, diverting, channeling) are effective ways of dealing with flooding
- » A natural Creek and riparian area will flood less

### Costs and responsibilities:

- » Costs for resiliency actions should not be borne by landowners
- » Collaboration with adjacent municipalities and parks is required
- » Compensation and land buy-back programs should be cautiously explored

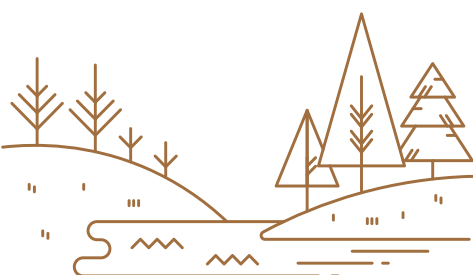
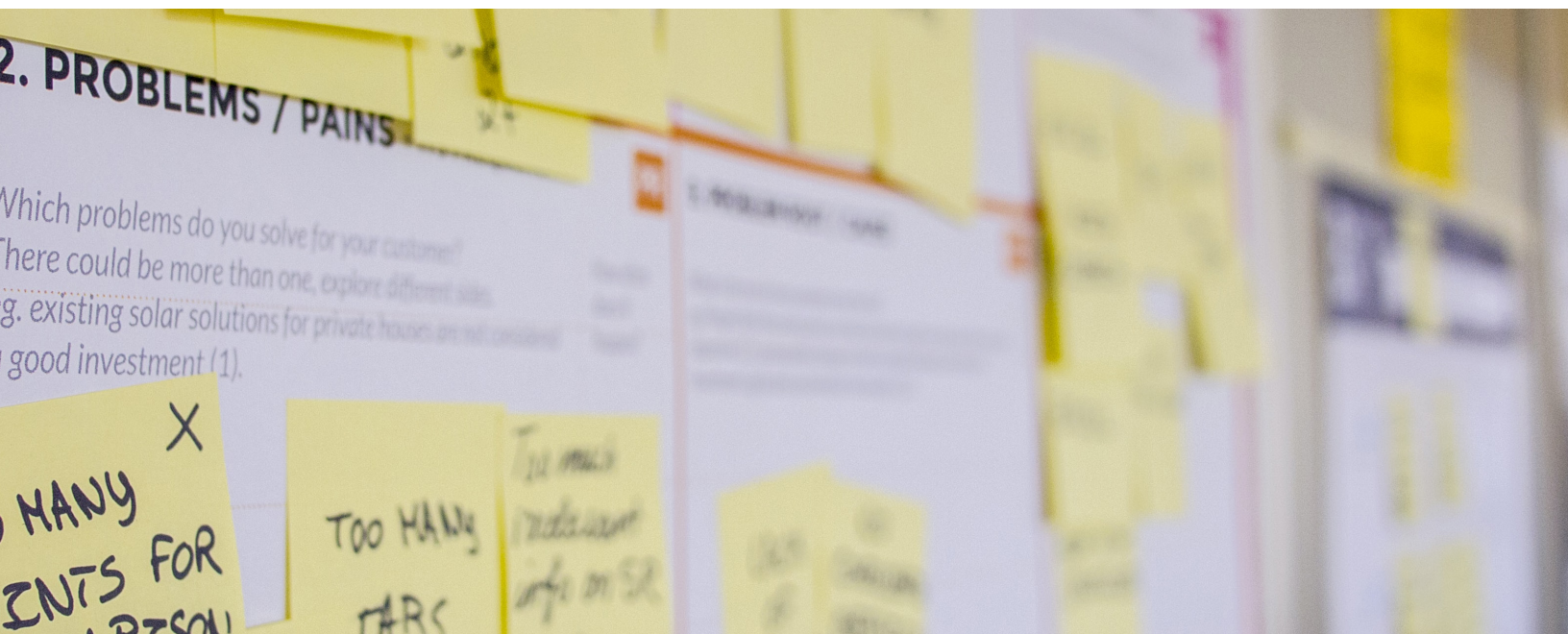


## 4 Lessons Learned

### 4.1 Participant Evaluation

To provide transparency and to engage the community in the most appropriate way for them, it is important to garner the community's feedback on how the current engagement efforts are succeeding, or not, what is working well, and what should be improved. For each engagement event, a Participant Evaluation questionnaire was provided via the "Poll" function in Zoom. The questionnaire provided non-leading, un-biased, and project relevant questions. The Likert scale of 1 through 5 was used to understand the level of agreement on the questions posed.

A total of four forms were submitted. Overall, participants felt that their voices were heard during the session, that they were comfortable sharing input during the session, that they understood the materials being presented, and that the sessions were good or excellent. A copy of the poll results can be found in the What Was Said summary provided to the County.

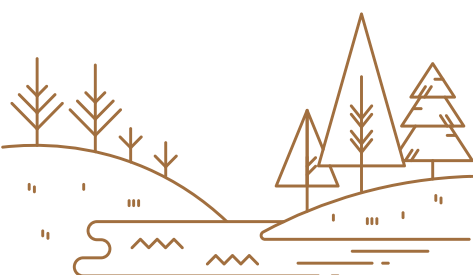




## 4.2 Lessons Learned

At the conclusion of each engagement session, the project team met to discuss the event, what needed to be enhanced, or maintained. A consistent concern was the limited attendance at both events, which was also a concern during the virtual engagement sessions in Phase I (August 2021). As with the Phase I sessions, the Phase II sessions were widely advertised across social media, the project website, and mailouts to adjacent landowners and stakeholders.

Participant feedback during the sessions indicated that the sessions were well-received, and the comments and questions provided during the sessions indicated a high level of engagement from those who participated.

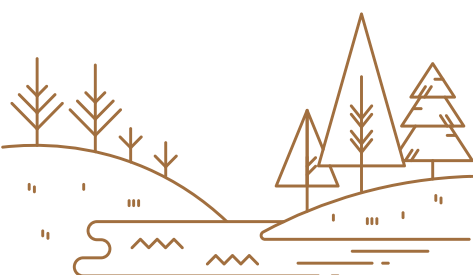




## 5 What We Did

The most critical of all reporting back to the affected community is describing how their input was considered and how it did, or did not, influence the final decisions and design. This is a key component to providing a transparent process. The What We Did (WWD) summary will close the loop on the input provided, demonstrating how it was used and why it was used in the way that it was. Even if the community members do not agree with the projects final outcomes, this summary aids in the building and maintaining of trust as their voices are demonstrably heard and it is made clear how project determinations were made.

What we heard from community members, stakeholders, and Indigenous group engagement was included in the project outcomes in various ways, as described below.

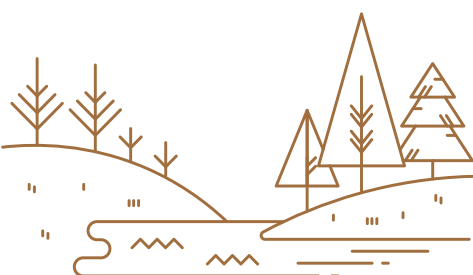


## 5.1 Community Comments in the Resilience Action Plan

Throughout both engagement phases, the project team heard about key concerns and opportunities from residents, industry, and Indigenous groups. These key topics are outlined in Section 1.1 (Phase I) and Section 3.2 (Phase II). These topics are represented in the Resiliency Action Plan across multiple Vision Statements and associated actions.

- » Flood mitigation, planning, and response have associated actions across all Vision Statements
- » Beavers and their impacts on flooding and the ecosystem are addressed in Vision 1: Healthy Ecosystems and in Vision 6: Educated, Engaged, and Empowered Public
- » Development (infrastructure-related) actions are presented in Vision 2: Integrated Watershed Management and Vision 3: Resilient Infrastructure
- » Costs of action implementation and the applicability of the actions (responsibilities) are included alongside all actions. Cost and implementation ease (how much collaboration or partnership is required to implement an action) are also considered as part of the evaluation process for prioritizing actions.
- » The Resiliency Action Plan was updated to include wording and actions around drought resistance following direct feedback from the public engagement sessions.

In addition to addressing key topics with specific actions, the project team used a weighted ranking system to help prioritize action implementation. The ranking system included community and stakeholder support for a given action as part of the prioritization criteria. The project team heard from several Indigenous groups that there are opportunities to build better relationships, share knowledge, and increase awareness of Indigenous land use in the region. Action V6.4: Indigenous Relations provides context and ideas to further this shared goal.



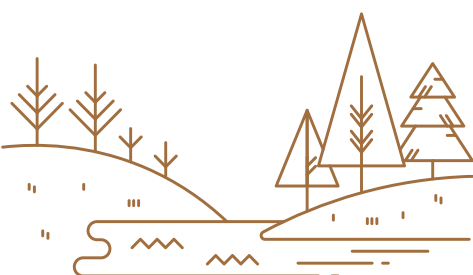


## 5.2 Local Site Considerations

Throughout the project, site-specific information was provided by landowners, stakeholders, and citizen scientists. While site-specific information was not included in the Resiliency Action Plan, specific flooding locations and creek blockages, specific ecological systems or concerns, and wildlife and plant observation data were included in the relevant data sets used to generate the State of the Watershed Report and/or the Stormwater Management Plan. Examples of how community-provided data was used include:

- » Known flood areas used in the flood maps and modeling;
- » Citizen-collected wildlife data through iNaturalist and NatureLynx used to inform ecological assessments, and;
- » Areas of known ecological or social value included in the ecological assessment process

The ongoing collection of site-specific concerns, data, and opportunities will support plan implementation and help direct future initiatives. An online Data Atlas can be found on the project website (<https://www.strathcona.ca/transportation-roads/planning-and-design/astotin-creek-resiliency-study/>), which provides users with an interactive map of the project area and data collected during the study (survey locations, wildlife sightings, landscape features).



## 5.3 Future Conversations and Action

Building up the resiliency of the Astotin Creek and surrounding lands and infrastructure is a long-term process. The engagement associated with this project not only influenced the State of the Watershed Report, the Stormwater Management Plan, and the Resiliency Action Plan, but also sets the stage for future conversations as new projects progress. New opportunities for collaboration will arise with long-standing and new partners and additional public input may also be required for certain actions and decisions to move forward. The transparent engagement process undertaken for the Astotin Creek Resiliency project will continue to support those conversations and collaborations.

