Okanagan Water & Biodiversity Forum
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Kelowna, BC

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MCRI is…

- A multi-stakeholder partnership established informally in 2002 to help rebuild fish stocks in the Okanagan Basin
- Formalized in 2008 to restore natural functions to sections of Mission Creek between the East Kelowna bridge and Okanagan Lake

MISSION CREEK
RESTORATION INITIATIVE

Appreciating Mission Creek

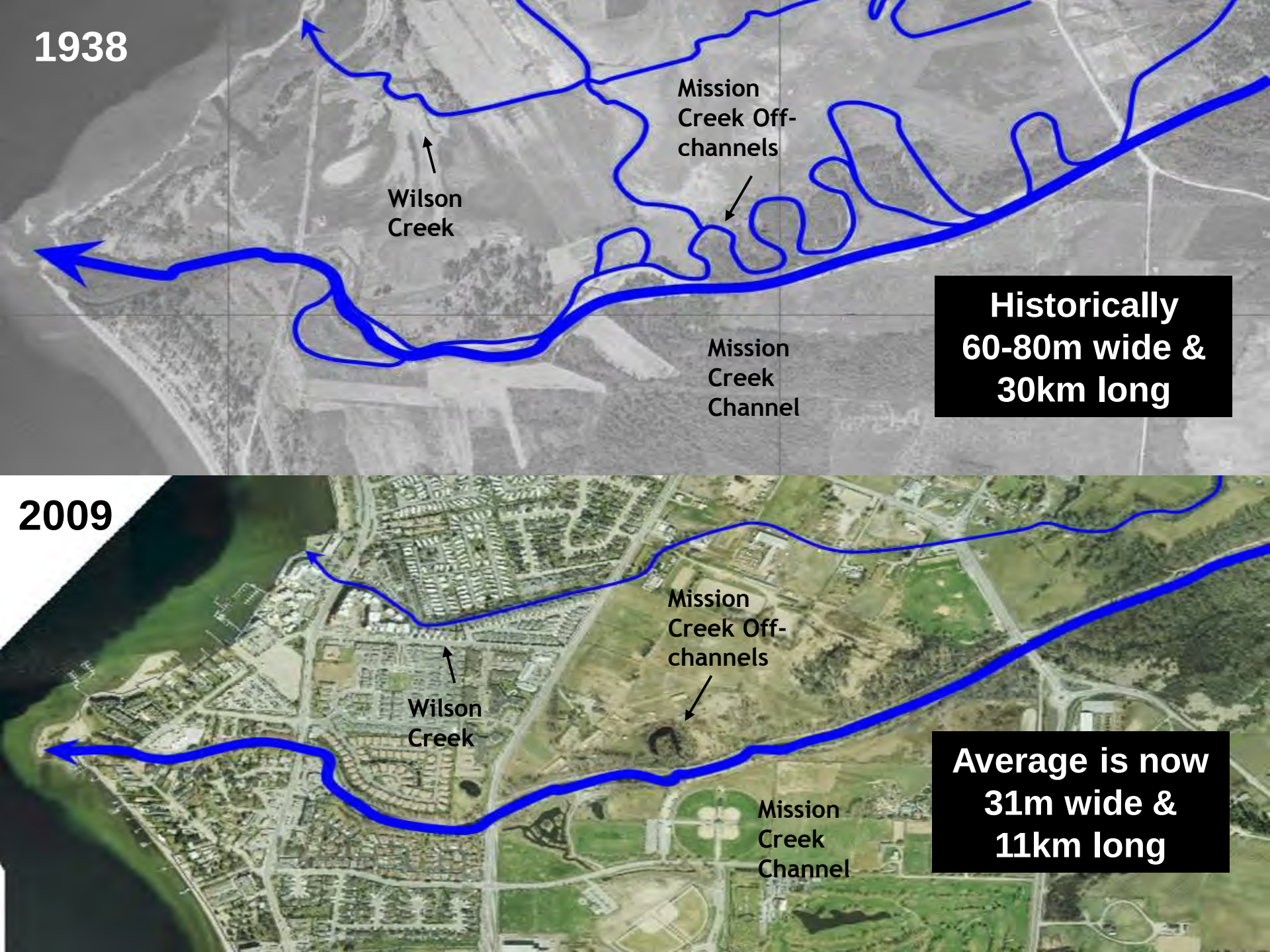
- Fed by the Okanagan's largest watershed, MC provides 25% of all water entering Okanagan Lake
- Home to abundant fish and wildlife stocks
- Designated a BC Heritage River in 1997
- Provides abundant recreational opportunities

Understanding the Issues

- Sections of MC between East Kelowna bridge and Okanagan Lake were channelized and diked in the 1950s to prevent flooding
- Lost more than 25% of the creek's length, 80% of spawning and rearing habitats, and 75% of wetland and riparian areas
- Historical, ecological, and recreational impacts are great

Our Vision is…

“Restoring and protecting Mission Creek to enrich historical, ecological, and recreational values for the Okanagan.”


1938
Mission Creek Off-channels
Wilson Creek
Mission Creek Channel
Historically 60-80m wide & 30km long
2009
Mission Creek Off-channels
Wilson Creek
Mission Creek Channel
Average is now 31m wide & 11km long

MCRI Restoration Concept

From this…

to this.

Our Mission is…

- To restore fish and wildlife stocks and habitat
- To conserve and expand biodiversity and protect species at risk
- To improve flood protection
- To inspire and support community stewardship
- To nurture partnerships and secure funds that support Mission Creek restoration

MISSION CREEK
RESTORATION INITIATIVE

Why restore fish and wildlife habitat?

- Most important spawning tributary for kokanee and rainbow trout from Okanagan Lake
- Once produced >80% of stream-spawning kokanee and 50% of rainbow trout
- Now produces 20% of capacity
- Restoration is critical to recovery of sport fishery

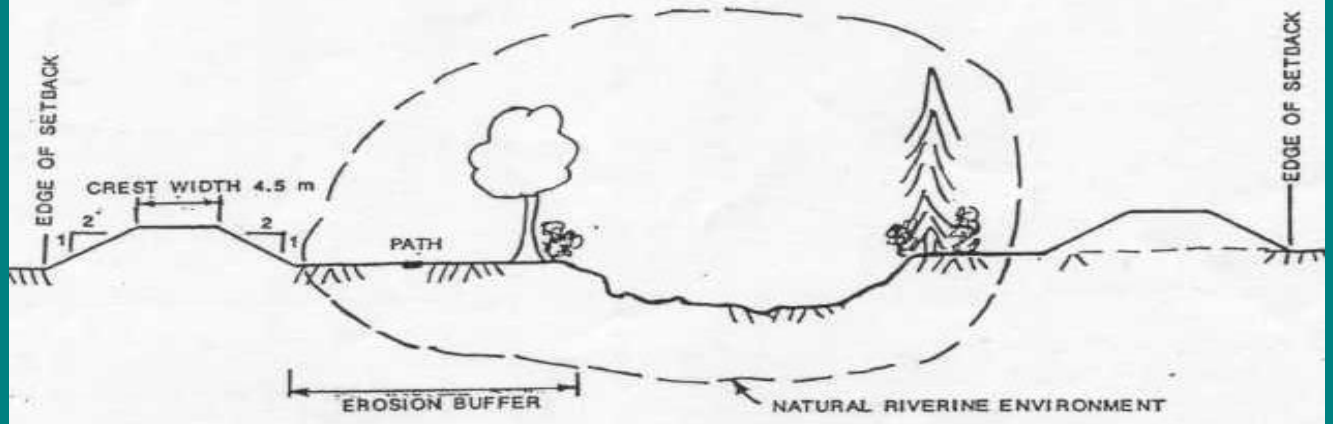
Restoration Methodology

- Set back the dikes to widen the creek
- Re-establish the flood plain
- Reconnect remnant oxbows
- Restore creek banks and plant riparian vegetation
- Create wetlands and habitat for species at risk
- Maintain the Mission Creek Greenway and public access to the greenway
- Improve drainage for agricultural land

MISSION CREEK
RESTORATION INITIATIVE

EXISTING DYKES

NOT TO SCALE



PROPOSED SETBACK DYKES

FIGURE 4

MISSION CREEK CORRIDOR PLAN

CROSS SECTIONS OF EXISTING DYKES
AND PROPOSED SETBACK DYKES

Why protect biodiversity/species at risk?

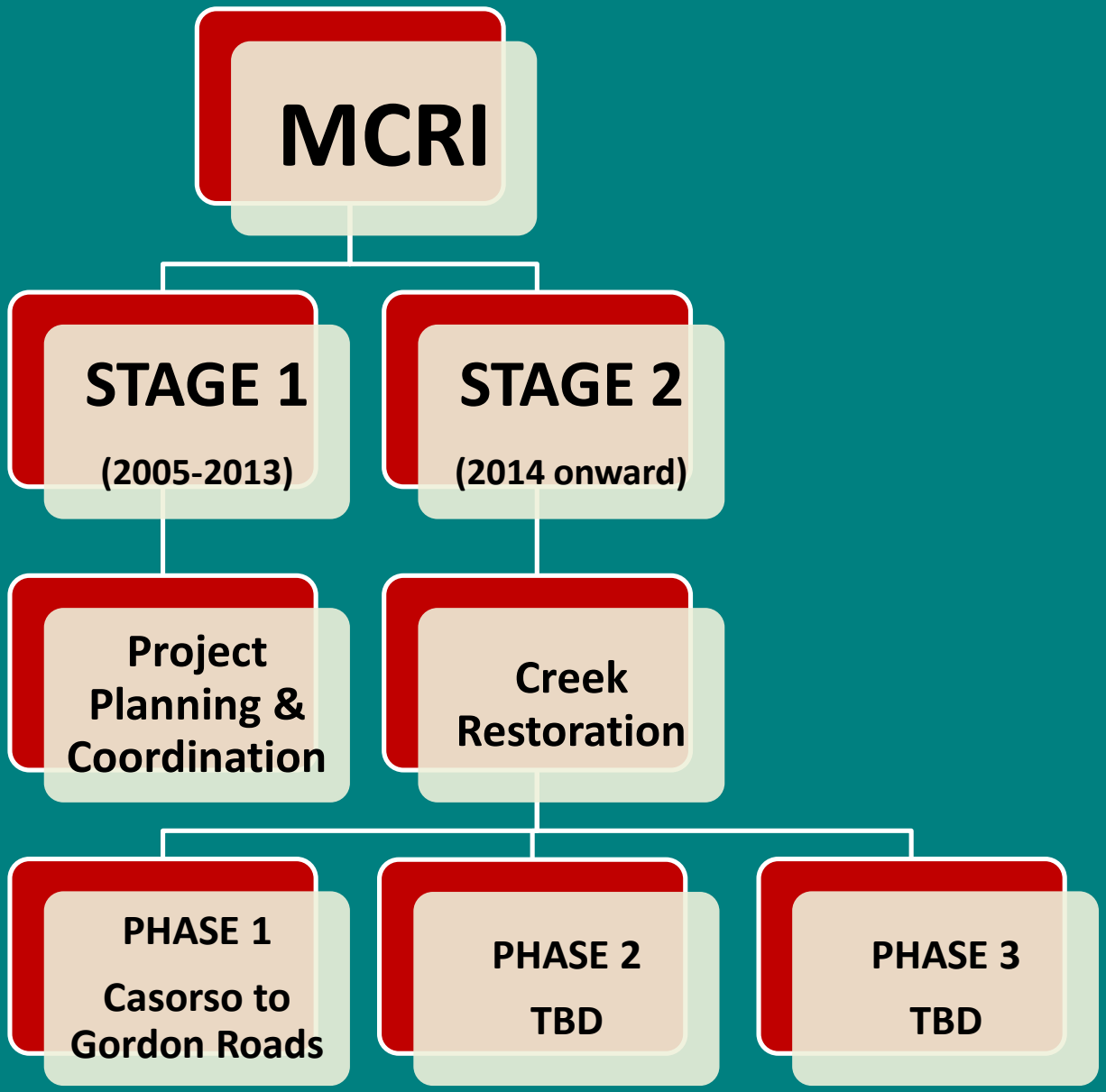
- Diking has impacted fish and wildlife breeding, rearing and over-wintering habitats
- Species at risk include kokanee, black cottonwood, Lewis's woodpecker, white-throated swifts, and western screech owls
- Protecting biodiversity/ species at risk will increase natural capital

Why improve flood protection?

- Environmental and economic risks and impacts for all stakeholders are significant
- Dikes built in the ‘50s don’t meet today’s standards
- Flood impacts are growing:
  - *2012: 3 events with flows > 90 cu/metres/second*
  - *2013: 130 cu/metres/second*
- Dike setback will reduce flood risk and improve the creek’s ecological function

Why inspire and promote stewardship?

- Builds awareness that leads to long-term participation, protection, and collaboration
- Prompts more sustainable behaviours
- Supports the area's social, cultural, ecological, and economic well-being
- Encourages donations and sponsorships


MCRI
STAGE 1
(2005-2013)
STAGE 2
(2014 onward)
Project Planning & Coordination
Creek Restoration
PHASE 1
Casorso to Gordon Roads
PHASE 2
TBD
PHASE 3
TBD

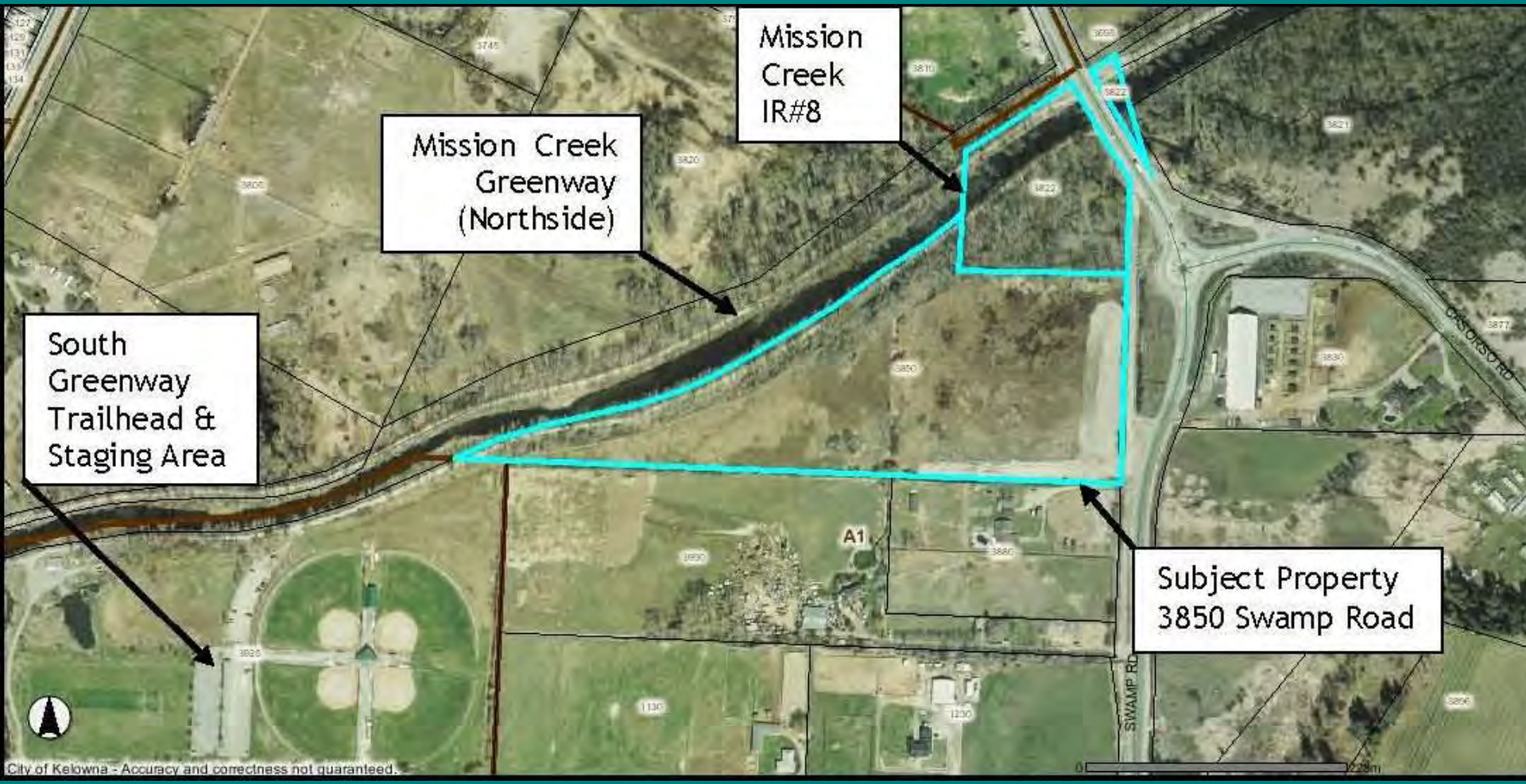
STAGE 1 Accomplishments

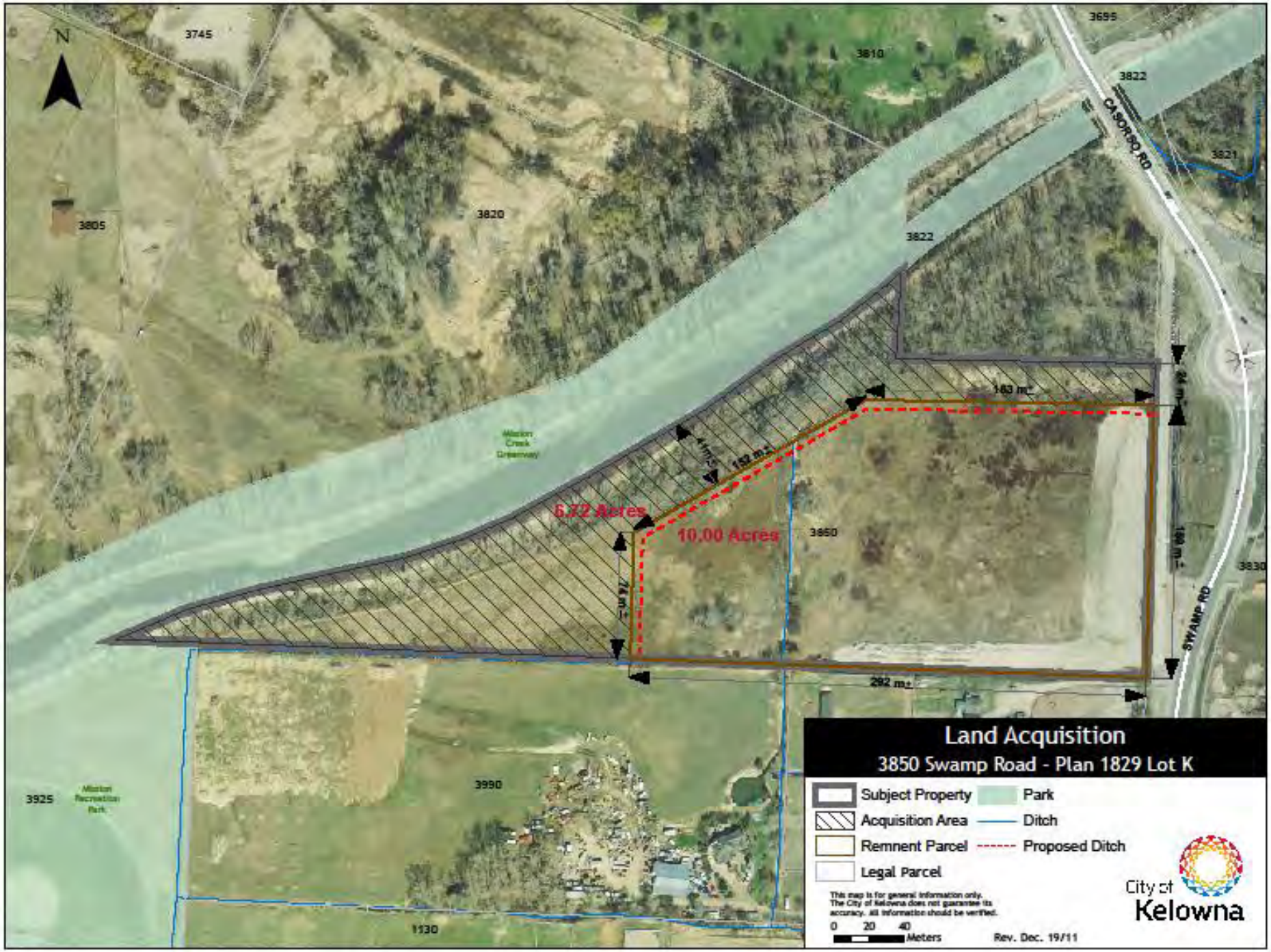
- Hired project coordinator
- Developed ToR, MoU and Implementation Guide
- Raised >$1.6M in funding
- Acquired key properties

STAGE 1 Accomplishments (cont.)

- Created MC Habitat Compensation Bank
- Conducted technical assessments and an aerial inventory
- Developed communication and outreach tools

STAGE 1 Land Acquisitions




N
3745
3695
3810
3822
CASORSO RD
3821
3805
3820
3822
163 m±
44 m±
Mission Creek Greenway
152 m±
6.22 Acres
10.00 Acres
3850
3830
SWAMP RD
292 m±
3990
3925
Mission Recreation Park
1130
Land Acquisition
3850 Swamp Road - Plan 1829 Lot K
Subject Property
Acquisition Area
Remnent Parcel
Legal Parcel
Park
Ditch
Proposed Ditch
This map is for general information only.
The City of Kelowna does not guarantee its accuracy. All information should be verified.
0 20 40
Meters
Rev. Dec. 19/11
City of Kelowna

STAGE 2 Activities & Timelines

- Raise funds (ongoing)
- Acquire properties (ongoing)
- Conduct biophysical baseline assessment (2014)
- Develop concept/detailed engineering plans (2014/15)

MISSION CREEK
RESTORATION INITIATIVE

PHASE 1 Concept

STAGE 2 Activities & Timelines (cont.)

- Introduce concept to the public (2015)
- Develop and implement performance monitoring and measurement parameters (2015)
- Get permits and licenses (2015/16)
- Begin construction (2016)

MISSION CREEK
RESTORATION INITIATIVE

Thank-you to the MCRI Partners!

- *Central Okanagan Land Trust*
- *City of Kelowna*
- *Fisheries and Oceans Canada*
- *Friends of Mission Creek*
- *Ministry of Agriculture*
- *Ministry of Forests, Lands and Natural Resource Operations*
- *Okanagan Nation Alliance*
- *Regional District of Central Okanagan*
- *Westbank First Nation*

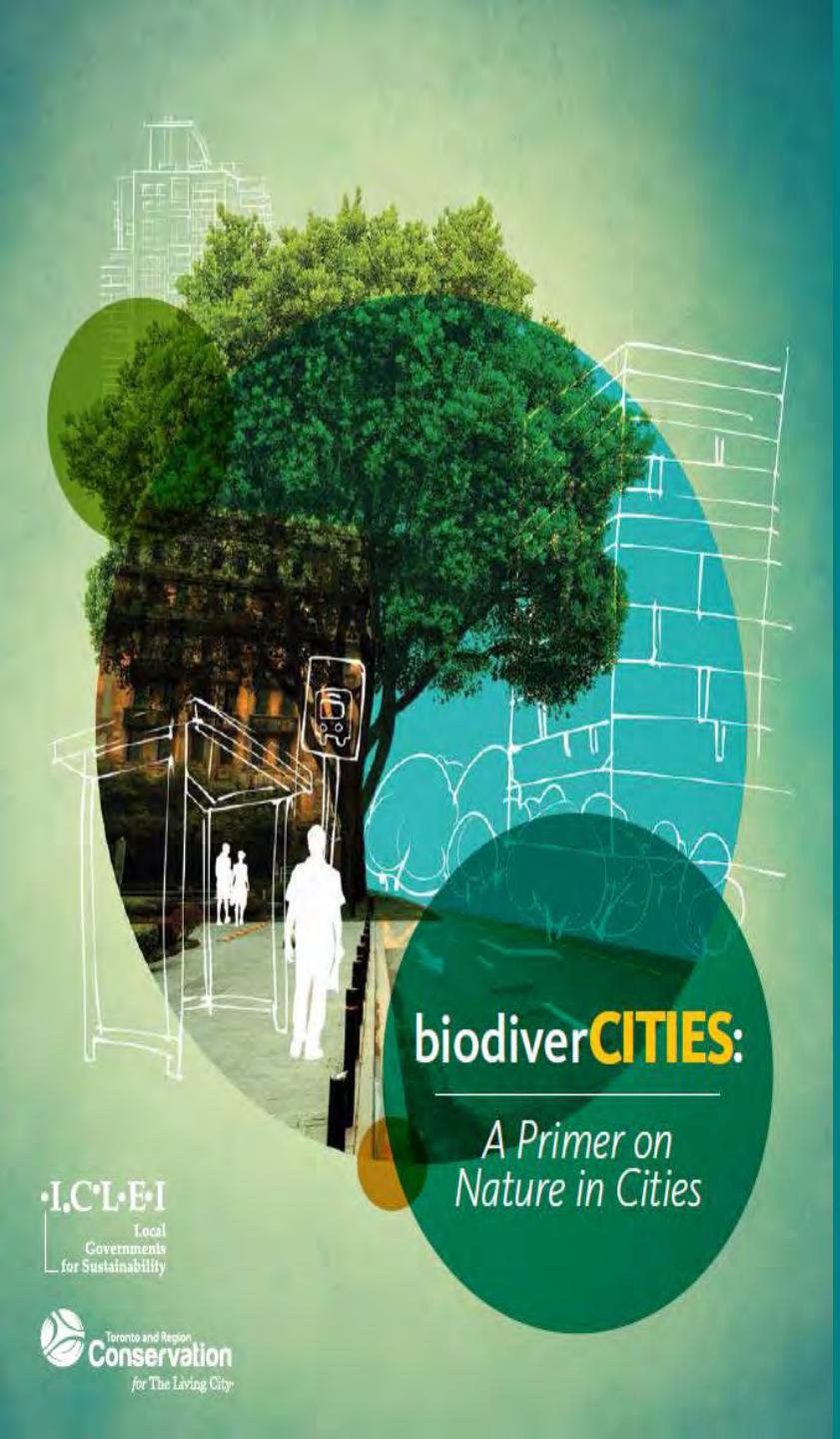
MISSION CREEK
RESTORATION INITIATIVE

Thank-you to the MCRI Funders!

- *City of Kelowna*
- *Habitat Conservation Trust Foundation*
- *Okanagan Basin Water Board*
- *Province of BC*
- *Regional District of Central Okanagan*

MISSION CREEK
RESTORATION INITIATIVE

Questions or Comments?



biodiverCities: A Primer on Nature in Cities

Audience: Municipal decision makers who want to explore new approaches to achieving broader sustainability and community livability objectives.

Content: Full of examples and case studies, this publication features best practices that have produced positive results and can be replicated by other communities looking to do the same.

Targeted Message: This resource is made specially for Canadian communities. *biodiverCities* explores the regulatory and governance framework of Canadian municipalities and offers solutions to mainstreaming biodiversity.

Making the Case: Biodiversity exists within every community. Cities are no exception.

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