

Project Management for a Changing Climate

Project Management for a Changing Climate

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Introduction

Welcome to this 4-week course, Project Management for a Changing Climate. My name is Susan Todd and I designed this course.

Adapting to a changing climate will involve governments, businesses, societies and other organizations with diverse perspectives, mandates and capacities. Project managers, through their effective direction of complex projects, occupy a critical role and must ensure that their projects consider the implications of a changing climate. This course will help you recognize climate change factors that could affect successful outcomes for your project and formulate strategies you can use to address them. You can expect to leave this course better prepared to add a climate change lens to your project planning.

For this course, the definition of “project” is broad and the content is suitable for a diverse range of professionals who enjoy multidisciplinary learning environments.

The course is structured in four modules, that cover:

- [Perspective](#): perspectives that are key to developing a climate change lens for project management;
- [Engaging](#): engaging team members, and those affected by climate change;
- [Planning](#): planning for climate change throughout the project life; and
- [Applying](#): applying a climate change lens to a real project.

Each week you will have readings and/or videos for information and perspective, and activities where you will engage with peers to reflect upon and integrate core concepts. We will also use a case study about a project manager in a fictional transit

agency that will challenge you to practise your learning as we go. In the final module, you will apply your learning to a real project you're involved in.

Most of the learning activities you can do when the time is right for you. However, it is recommend that you complete the activities for each module in the order specified so that you're prepared to engage with peers in a synchronous session on Friday afternoon each week. I will post the highlights from each week in a course Announcement as a summary of our learning. *Please note: the synchronous questions are provided as part of sharing this Creative Commons licensed content. You can find them at the end of each module.*

The course requires a foundational understanding of climate change impacts and risks. This can be provided by Dr. Stewart Cohen's course titled [Climate Change Adaptation Fundamentals](#). If you haven't taken this course, we strongly recommend reviewing the two key reports that are highlighted as Foundational Reading in Module 1.

About Adaptation Learning Network



Welcome to the Adaptation Learning Network (ALN). This course is one of [ten courses](#) developed for working professionals. These courses are designed for people who are addressing climate adaptation risks and impacts in their communities and jobs.

WHY DOES THIS MATTER?

Climate change adaptation requires expertise from many perspectives. The ALN is committed to connecting people, professional interests, and regions to advance skills, knowledge and solutions.

JOIN THE NETWORK

To join the network, [sign up for our monthly newsletter here](#), and follow us on social media ([Twitter](#), [LinkedIn](#)) to get adaptation news and hear about our latest course offerings and events.

LEARN MORE

To learn more about the Adaptation Learning Network read [this 5-minute introduction](#).

Module 1: Perspective

Welcome to Module 1, Perspective. In this Module you'll have an opportunity to consider your perspective on climate change as a project manager, recognize valuable perspectives that others bring, and consider when and how an interdisciplinary approach can enhance project management for a changing climate.

Module 1 Learning Goals

This Module will help you:

- learn who is in the group, including the skills, backgrounds, knowledge and experience they can share that is relevant to climate change adaptation
- reflect on your motivation for considering climate change in your projects
- understand what's different about managing projects in a changing climate

Readings and Resources

Foundational Readings

These provide background on climate change impacts and risks. They should be considered essential for those who have not taken the course [Introduction to Climate Change with Dr. Stewart Cohen](#) and recommended for others. Focus on Executive Summaries.

- [Canada's Changing Climate Report](#)
- [Canadian Council of Academies – Canada's Top Climate Change Risks](#)
- [Strategic Climate Risk Assessment for BC, Government of BC \(2019\)](#)

Required readings for Module 1 activities – also included in course content

Perspective from UK professional: Climate change and project management: Re-thinking the relationship, Peter W.G. Morris (2017), <https://www.apm.org.uk/blog/climate-change-and-project-management-re-thinking-the-relationship/>

Perspective from US PM association leader: Thoughts on Climate Change and Project Management, Joel Carboni (2017) <https://epress.lib.uts.edu.au/journals/index.php/PMRP/article/view/5462/5854>

Perspective from European Financing Institutions: Integrating Climate Change Information and Adaptation in Project

Development, Emerging Experience from Practitioners <https://www.ebrd.com/what-we-do/get/integrating-climate-change-adaptation-in-project-development.pdf>

Perspective: The Resilience of Indigenous Peoples to Environmental Change James D. Ford, Nia King, Eranga K. Galappaththi, Tristan Pearce, Graham McDowell, and Sherilee L. Harper, [https://www.cell.com/one-earth/pdfExtended/S2590-3322\(20\)30250-5](https://www.cell.com/one-earth/pdfExtended/S2590-3322(20)30250-5)

Required for all modules

[Smoky River Transit Case](#)

Other resources with additional perspectives

Low Carbon Resilience: Best Practices For Professionals, Final Report (2018) Adaptation to Climate Change Team, SFU Faculty of Environment. https://act-adapt.org/wp-content/uploads/2018/12/lcr_best_practices_final.pdf (especially pages 8-16)

Adaptive Management in Climate Change Adaptation, Fact sheet undated, Ontario Centre for Climate Impacts and Adaptation Resources. <http://climateontario.ca/doc/factsheets/AdaptiveManagement-final.pdf>

Uncertainty, Climate Change, and Adaptive Management, Conservation Ecology, Vol. 1, No. 2 (1997) Garry Peterson, Giulio Alessandro De Leo, Jessica J. Hellmann, Marco A. Janssen, Ann Kinzig, Jay R. Malcolm, Karen L. O'Brien,

Shealagh E. Pope, Dale S. Rothman, Elena Shevliakova and Robert R.T.

Tinch, <https://www.jstor.org/stable/26271660>

Adaptive Management and Climate Change Adaptation: Two Mutually Beneficial Areas of Practice (2019) David Marmorek, Marc Nelitz, Jimena Eyzaguirre, Carol Murray, Clint Alexander, Paper No. JAWRA-18-0047-P of the Journal of the American Water Resources Association (JAWRA), https://essa.com/wp-content/uploads/2019/07/Marmorek_et_al._in-press.-AM-and-CCA-two-mutually-beneficial-areas-of-practice-.pdf

Latour's Axioms, a collection of extracts from Bruno Latour (1996) Aramis or the Love of Technology, Harvard University Press assembled by course developers. (Link removed to comply with copyright).

Let's get started.

In Module 1 you'll have an opportunity to consider your perspective on climate change as a project manager, recognize valuable perspectives that others bring, and consider when and how an interdisciplinary approach can enhance project management for a changing climate.

This module consists of the following activities:

- 1.1 Reading and viewing a variety of perspectives on climate change
- 1.2 Discussion: Exploring what climate change means for you as a project manager
- 1.3 Synchronous Discussion

1.4 Preparing for future modules by familiarizing yourself with the Smoky River Transit case study

1.1 Reading and viewing a variety of perspectives on climate change

Watch the following videos and read at least two of the following perspectives on project management and climate change.

After viewing the videos and reading the articles/report, reflect on their messages and what they mean for project managers in Canada. **How well do you think climate change is being addressed by project managers in Canada?**

Video: An Engineering Perspective: Harshan Radhakrishnan, Manager, Climate Change and Sustainability Initiatives Engineers and Geoscientists BC

Video: A Low Carbon Resilience Perspective: Deborah Harford, Executive Director, ACT, Simon Fraser University

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- **Perspective from UK professional:** Climate change and project management: Re-thinking the relationship, Peter W.G. Morris (2017), <https://www.apm.org.uk/blog/climate-change-and-project-management-re-thinking-the-relationship/>
 - **Perspective from US project management association leader:** Thoughts on Climate Change and Project Management, Joel Carboni (2017) <https://epress.lib.uts.edu.au/journals/index.php/PMRP/article/view/5462/5854>
 - **Perspective from European financing**

institution: Integrating Climate Change Information and Adaptation in Project Development, Emerging Experience from Practitioners <https://www.ebrd.com/what-we-do/get/integrating-climate-change-adaptation-in-project-development.pdf>

- **Perspective:** The Resilience of Indigenous Peoples to Environmental Change James D. Ford, Nia King, Eranga K. Galappaththi, Tristan Pearce, Graham McDowell, and Sherilee L. Harper, [https://www.cell.com/one-earth/pdfExtended/S2590-3322\(20\)30250-5](https://www.cell.com/one-earth/pdfExtended/S2590-3322(20)30250-5)

1.2 Discussion: Climate Change: What does it mean for you as a project manager?

Take a moment to reflect on how climate change will affect your work and projects and post your thoughts to the discussion forum titled “Climate Change: What does it mean for me?”

Try to keep your post brief (100 words). Read and respond to one or two of your colleague’s posts.

Be prepared to join the synchronous session to review the Discussion Forum results and discuss the biggest challenges and opportunities for project managers in a changing climate.

1.3 Synchronous Discussion

In this session, we will discuss the highlights and key learnings from the previous activities. Join the session prepared to discuss:

- How well do you think climate change is being addressed by project managers in Canada?
- What does climate change mean for you as a project manager?

1.4 Introducing Smoky River Transit

In Modules 2 and 3 we will be using the Smoky River Transit case study. You can prepare by:

- Reading the Case Study – [Smoky River Transit](#)
- Watching the video interview 1 with Robert Siddall, former CFO of Metrolinx, where we discuss:
 - *How is climate change going to change project management for large infrastructure projects?*
 - *What skills sets or perspectives are needed?*

Video: Robert Siddall, former CFO of Metrolinx

Module 2: Engaging

Welcome to Module 2: Engaging. In this Module, you'll have an opportunity to consider the people affected by climate change and your project's response to it. This includes people internal to your organization and others, such as neighbouring communities or Indigenous people.

Module 2 Learning Goals

This Module will help you:

- Understand the risks climate change poses to people internal or external to your organization
- Engage people and communities who could be affected by climate change and your project's response to it

Readings and Resources

Required readings for Module 2 activities, also included in course content

Climate Risks- Engaging People Vulnerable to

Climate Impacts, Summary Report, Evergreen (2020) https://www.evergreen.ca/downloads/pdfs/Evergreen_Climate_Risks_Key_Findings_2020_FINAL.pdf

ACCC Resource Manual: Reflection on Adaptation Planning Processes and Experiences, (2013), Street, R. and S. Opitz-Stapleton, DfID-China: Beijing, <http://www.asiapacificadapt.net/content/adapting-climate-change-china-phase-i-resource-manual>

Health and climate change toolkit for project managers, World Health Organization (no date) <https://www.who.int/globalchange/resources/toolkit/en/>

Required for all modules

[Smoky River Transit Case](#)

Other readings and resources

Public participation, engagement, and climate change adaptation: A review of the research literature (2019), Stephan Hügel | Anna R. Davies <https://onlinelibrary.wiley.com/doi/full/10.1002/wcc.645> (especially section 4.1 on The “wicked problem of participation and engagement”)

Working on a warmer planet: The effect of heat stress on productivity and decent work (2019) Tord Kjellstrom, Nicolas Maître, Catherine Saget, Matthias Otto and Tahmina Karimova, International Labour

Organization https://www.ilo.org/global/publications/books/WCMS_711919/lang-en/index.htm

Old ways for new challenges: Indigenous Adaptation to Climate Change, https://coastadapt.com.au/sites/default/files/case_studies/CS08_Indigenous_adaptation.pdf

Victorian Government DSE (Department of Sustainability and Environment). 2005. Effective Engagement: Building Relationships with Community and Other Stakeholders. Book 3 The Engagement Toolkit. <https://sustainingcommunity.files.wordpress.com/2018/05/effective-engagement-book-3.pdf>

RESIN: Supporting decision-making for resilient Cities, Supporting Tools and Methods. <http://wiki.resin.itti.com.pl/supporting-tools/#Stakeholder%20identification%20and%20management%20tools>

Smith, T., A. Leitch, and D. Thomsen. 2016: Community Engagement. CoastAdapt Information Manual 9, National Climate Change Adaptation Research Facility, Gold Coast, https://coastadapt.com.au/sites/default/files/information-manual/IM09_community_engagement.pdf

Module 2 builds on our understanding of diverse perspectives and equips us for the work of engaging stakeholders and

others who are important to our project. We will see that engagement is useful at all stages of a project for two reasons:

- It ensures that our project will consider and address the needs and views of people who could be affected by our project
- It provides vital information that can help ensure the success of our project.

Activities for this module will include:

- 2.1 Reading and viewing guidance on engagement
 - 2.2 Discussion: Sharing engagement experience
 - 2.3 Preparing to discuss Smoky River case study
 - 2.4 Synchronous discussion
-

2.1 Guidance on engagement

The readings and video resources for this week will help us in two areas:

- understanding who can be affected by climate change, including vulnerable populations. This prepares us to think broadly about whom your project will serve or whom it will impact in unexpected ways.
- enhancing our ability to engage effectively

Please watch the video with Erica Crawford, read the articles and explore the WHO toolkit. Then reflect and share your experience in this Module's discussion forum.

Video: Erica Crawford, Adaptation Planner, Shift Collaborative

Read:

- Climate Risks- Engaging People Vulnerable to Climate Impacts, Summary Report, Evergreen (2020) https://www.evergreen.ca/downloads/pdfs/Evergreen_Climate_Risks_Key_Findings_2020_FINAL.pdf
- ACCC Resource Manual: Reflection on Adaptation Planning Processes and Experiences, (2013), Street, R. and S. Opitz-Stapleton, DfID-China: Beijing, <http://www.asiapacificadapt.net/content/adapting-climate-change-china-phase-i-resource-manual>

Explore:

- Health and climate change toolkit for project managers, World Health Organization (no date) <https://www.who.int/globalchange/resources/toolkit/en/>

Now, take some time to reflect and then share your story of what has worked well and what hasn't to identify and respond to climate change implications for your projects.

2.2 Discussion: Engagement Stories

Once you have done the readings and seen the video, take some time to reflect and then **share your engagement story** related to climate change. This can be from the perspective of a participant, a facilitator or a project manager. Include what has worked well and what hasn't to identify and respond to climate change implications for your projects. If you haven't played a role in engagement around climate change, consider posting a story about a situation that would have benefited from engagement.

2.3 Smoky River Transit Case

If you haven't already, familiarize yourself with the Smoky River case study materials in Module 1.

Read the [Smoky River Transit Case](#) and [watch Robert Siddall video 1](#).

Then watch video interview 2 with Robert Siddall.

Video: Interview 2 with Robert Siddall.

2.4 Synchronous Discussion

In this session we will discuss some of the questions

in the Smoky River case study relevant to engaging stakeholders.

Join the synchronous session prepared to discuss:

- *Which transit stakeholders tend to be most affected by climate change and how should organizations engage with them to ensure projects consider the impacts on them?*In regards to the Smoky River Transit Case questions:
- *What climate change risks should Hazel include in her project plan for the short term, longer term?*
- *Who should Hazel involve/engage to ensure that her project plan adequately addresses climate change risks for both the project and the people affected by it?*

Module 3: Planning

Welcome to Module 3, Planning. In this Module you'll have an opportunity to integrate climate change implications with standard project management planning considerations. You'll also start applying them in a case study situation.

Module 3 Learning Goals

This Module will help you:

- Develop awareness of how climate change affects project management in all stages
- Focus on what you can do in the planning stage to address climate change
- Find tools, frameworks or approaches to help you add a climate change lens to your planning

Readings & Resources

Required for Module 3.1 activities – also included in course content

[The Four Phases of Project Management](#),
Harvard Business Review staff (2016).

Guidelines for Project Managers: Making
vulnerable investments climate resilient, Report
for the European Commission (2012), Acclimatise
and COWI, https://web.law.columbia.edu/sites/default/files/microsites/climate-change/ec_guidelines_for_project_managers.pdf

Climate Compass – A climate risk
management framework for Commonwealth
agencies (2018), CSIRO,
Australia, <https://www.environment.gov.au/climate-change/adaptation/publications/climate-compass-climate-risk-management-framework>

Summary of ISO 14090 Principles – Summary
assembled by course developer from ISO
14090:2019 Adaptation to climate change —
Principles, requirements and
guidelines <https://www.iso.org/standard/68507.html> (link removed to comply with
copyright).

Required for Module 3.2 Activities

ReTooling for climate change site to familiarize
yourself with some available
tools https://www.retooling.ca/retooling_essentials.html

European Climate Adaptation Platform
Climate-ADAPT <https://climate-adapt.eea.europa.eu/knowledge/tools/uncertainty-guidance/topic3>

Required for all modules

[Smoky River Transit Case](#)

Other readings and resources that may be helpful for Module 3.3 tools swap meet

Climate Lens – General Guidance,
Infrastructure
Canada, <https://www.infrastructure.gc.ca/pub/other-autre/cl-occ-eng.html#1.1>

Strategic Assessment of Climate Change,
Environment and Climate Change Canada, July
2020 <https://www.strategicassessmentclimatechange.ca/>

Climate Data Canada
portal, <https://climatedata.ca/>

Data portal, Pacific Climate Impacts
Consortium (PCIC), University of
Victoria <https://pacificclimate.org/data>

Plan2Adapt, a PCIC
tool <https://pacificclimate.org/analysis-tools/plan2adapt>

PIEVC Engineering Protocol, Public
Infrastructure Engineering Vulnerability
Committee <https://pievc.ca/>

Study of the Impacts of Climate Change
on Precipitation and Stormwater
Management, Metro
Vancouver <http://www.metrovancouver.org/services/liquid-waste/LiquidWastePublications/Climatechangeimpactsprecipitationstormwater2050-2100%E2%80%93Technical-brief-2018.pdf>

Adapting to Climate Change Canada's First National Engineering Vulnerability Assessment of Public Infrastructure (2008), Canadian Council of Professional Engineers, https://pievc.ca/sites/default/files/adapting_to_climate_change_report_final.pdf

ISO 14090:2019 Adaptation to climate change — Principles, requirements and guidelines <https://www.iso.org/standard/68507.html>

Core principles for successfully implementing and upscaling Nature-based Solutions (2019) E. Cohen-Shacham, et al, Environmental Science and Policy 98, accessible from <https://www.iucn.org/theme/ecosystem-management/our-work/iucn-global-standard-nature-based-solutions>

Galore Creek Mining Case Study http://www.climateontario.ca/doc/reports/fbc_mining_case_study_galore_creek.pdf

Metrolinx Climate Adaptation Strategy (2018) Download PDF from <http://www.metrolinx.com/en/aboutus/sustainability/default.aspx>

In Module 3, we explore familiar territory for project managers, project planning, through the lens of climate change. As we have heard in Module 1 interviews, there is an abundance of resources on climate change. We will gain familiarity with these tools and exchange lessons learned in applying them.

Activities for this module will include:

3.1 Adding climate change considerations to a

- standard project management approach (Google doc)
 - 3.2 Gaining familiarity with climate change tools
 - 3.3 Participating in virtual swap meet of climate change tools (Padlet)
 - 3.4 Preparing to discuss Smoky River case study planning issues
 - 3.5 Participating in live Collaborate discussion
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3.1 Climate change considerations in planning (readings and Google doc)

The project management approaches and frameworks you use now continue to be relevant in a time of climate change, but we may need to approach them with a new perspective and understanding of climate risks and key stakeholders.

In this section we will take a traditional project management framework and consider how climate change considerations can inform it. We will build this collaboratively through a Google doc. See below.

Let's start by reading or scanning the following:

- The Four Phases of Project Management, Harvard Business Review staff (2016) <https://hbr.org/2016/11/the-four-phases-of-project-management>
- Guidelines for Project Managers: Making vulnerable investments climate resilient, Report for the European Commission (2012), Acclimatise and COWI, https://web.law.columbia.edu/sites/default/files/microsites/climate-change/ec_guidelines_for_project_managers.pdf
- Climate Compass – A climate risk management framework for Commonwealth agencies (2018), CSIRO,

Australia, <https://www.environment.gov.au/climate-change/adaptation/publications/climate-compass-climate-risk-management-framework>

- Summary of ISO 14090 Principles (link removed to comply with copyright)

Activity

Contribute to a collaborative document (i.e Google Doc) to show where and how climate change considerations might show up in the HBR approach.

<Note to instructor: Create a collaborative doc with the following>

Project Management Stage	How could you consider climate change at this stage?
Planning	
Determine the real problem to solve	
Identify stakeholders	
Define project objectives	
Determine scope, resource and major tasks	
Prepare for trade-offs	
Build Up	
Assemble your team	
Plan assignments	
Create the schedule	
Hold kickoff meeting	
Develop budget	
Implementation	
Monitor and control process and budget	
Report progress	
Hold weekly meetings	
Manage problems	
Closeout	

Evaluate project performance	
Close out project	
Debrief with team	

3.2 Climate change tools for project management in the planning stage

To effectively integrate climate change into your project planning you may need the following kinds of “tools” (term used loosely):

- Climate change information and education – general or specific science-based knowledge about how climate change works and what kinds of impacts we can expect
- Data services – services that help us understand how the climate may change in the locations that matter to our project
- Risk assessment – tools to help you understand climate change hazards specific to your project, recognize vulnerabilities, evaluate risks, and develop options to address the risks
- Community planning – tools for preparing and implementing local climate change strategies
- Sector or location specific guidance – guides, manuals, case studies and other tools

Below are two great places to start to get a sense of the tools available. Please explore:

ReTooling for climate change site to familiarize yourself with some available tools https://www.retooling.ca/retooling_essentials.html

European Climate Adaptation Platform Climate-ADAPT <https://climate-adapt.eea.europa.eu/knowledge/tools/uncertainty-guidance/topic3>

The readings and resources section for this module is organized around the above categories (some tools span categories and other categorization is possible).

Once you're familiar with some tools, our next activity will be to share our experiences or tips about tools, through a virtual "swap meet". In a swap meet, you show up with stuff you have used and want to share, and you can pick up some new stuff.

Use the Padlet in word or video to tell us about one tool you're bringing to the swap meet. How did you use it and why do you love it? You can also ask others if they have a used tool that might help you.

3.3 Activity: Virtual Swap Meet

Welcome to our climate change tools swap meet!

In a swap meet, you show up with stuff you have used and want to share, and you can pick up some new stuff.

Use the Padlet through words or video to tell us about one tool you're bringing to the swap meet. How

did you use it and why do you love it? You can also ask others if they have a used tool that might help you.

3.4 Smoky River Transit Case Study

In our synchronous session this week, we will discuss some planning questions in our case study. To prepare, please review the case and watch the video.

Review: [Smoky River Transit Case](#)

Watch video interview 3 with Robert Siddall – *Question: What are the most useful things project managers can do at the planning stage of a new transit project, to consider climate change?*

Video: Interview 3 with Robert Siddall

Reflect on questions 2 & 4 in the Case Study

3.5 Synchronous Discussion

In this session we will continue our discussion of the Smoky River case study, with a focus on a key planning issue – data needs.

Join the session prepared to discuss:

- What data would help Hazel manage uncertainty about future climate change and where/how could she get it?

This is a one hour discussion.

Module 4: Applying

Welcome to Module 4 the final module in this course. In this module you will pull together all your learning from the course so far to apply them to a real project you are managing, with feedback from peers.

Module 4 Learning Goals

This Module will help you:

- Address practical issues in project management related to climate change
- Identify and address potential issues in communicating about and getting buy-in to your project's climate change response
- Gain practice in applying a climate change lens to your own project. You will also identify potential issues in communicating about and getting buy-in to your project's climate change response.

Readings & Resources

Required reading for Module 4 activities – also included in course content

Article on change management and the ADKAR model, <https://www.prosci.com/resources/articles/the-what-why-and-how-of-change-management>

Being an Effective Change Agent: A Guide (2016) Stephanie Bertels, Jess Schulschenk, Andrea Ferry, Vanvessa Otto-Mentz, Esther Speck <https://embeddingproject.org/resources/being-an-effective-change-agent>

Guidance on how to build a business case for climate change adaptation: Lessons from coastal Australia (2018), Coast Adapt, Department of the Environment and Energy, Australia <https://coastadapt.com.au/how-develop-business-case> (includes business plan template)

Required for all modules:

[Smoky River Transit Case](#)

In Module 4 we will look at change management and business case approaches that can help you gain support for addressing climate change in your project planning. We will apply these insights to Smoky River Transit in a final Discussion Forum and to your own project in a Google doc. For our final Collaborate session, Robert Siddall will join us live to take your questions.

Activities in this module include:

- 4.1 Video and readings about making the case for a new lens on project management
 - 4.2 Discussion: Smoky River Transit
 - 4.3 Application to your own project (Google doc)
 - 4.4 Synchronous Discussion
 - 4.5 Course wrap and celebration
-

4.1 Making the case for a new lens on project management

Project managers who see the benefit of including climate change considerations in their planning, may encounter obstacles in the form of colleagues, bosses, stakeholders and others who do not see the need for it. These groups or individuals may be reluctant because they are concerned about delays or extra costs or they may not believe the benefits will outweigh the costs.

Introducing climate change perspectives to an established way of working may require a change management approach.

It may also require new business case tools that integrate climate change thinking.

Watch video interview 4 with Robert Siddall – *Question: What is the most useful thing project managers can do to ensure organizational support for a climate change lens on project management?*

Video: Interview 4 with Robert Siddall

Read:

- Article on change management and the ADKAR model, <https://www.prosci.com/resources/articles/the-what-why-and-how-of-change-management>
- Being an Effective Change Agent: A Guide (2016)
Stephanie Bertels, Jess Schulschenk, Andrea Ferry,
Vanvessa Otto-Mentz, Esther
Speck <https://embeddingproject.org/resources/being-an-effective-change-agent>
- You can also explore this guide from Australia:

- Guidance on how to build a business case for climate change adaptation: Lessons from coastal Australia (2018), Coast Adapt, Department of the Environment and Energy, Australia <https://coastadapt.com.au/how-develop-business-case> (includes business plan template)

Once you've absorbed enough of these resources, move on to apply them to the Smoky River Transit case study.

4.2 Discussion: Smoky River Transit

4.2 Smoky River Transit (Discussion Forum)

Refresh your memory of the [Smoky River Transit Case](#)

Reflect on what Hazel might need to do to build organizational support for a climate change lens on the new transit line project

4.3 Application to your own project

You've learned some approaches and tried them out on Smoky River Transit. Now it's time to apply them to your own project and get helpful suggestions from your peers.

Contribute to this Google Doc.

<note to instructor: create a google doc with the following>:

Project name or nickname	Description max 20 words	Biggest climate change risks (max 3)	Vulnerable stakeholders (max 3)	Biggest anticipated challenge	One thing you can do to address climate change

You will complete the first six columns for one project. One row per project.

In the final column, peers may suggest ideas to overcome your biggest challenge and additional things you can do to address climate change for this project.

4.5 Course Wrap and Celebration

Congratulations on completing Project Management for a Changing Climate! You've completed all Modules of this course. You've learned some new perspectives, gained insight to

stakeholder engagement, adapted project management approaches, discovered climate change tools, and found ways to build support for your climate change lens. You've applied your learning to a case study and then to a real project.

This is a good time to look back and reflect on what you've learned and think about what you want to do next.

Our final Padlet provides an opportunity to share your learning highlight, to signal your next move and to support your new friends in their journey.