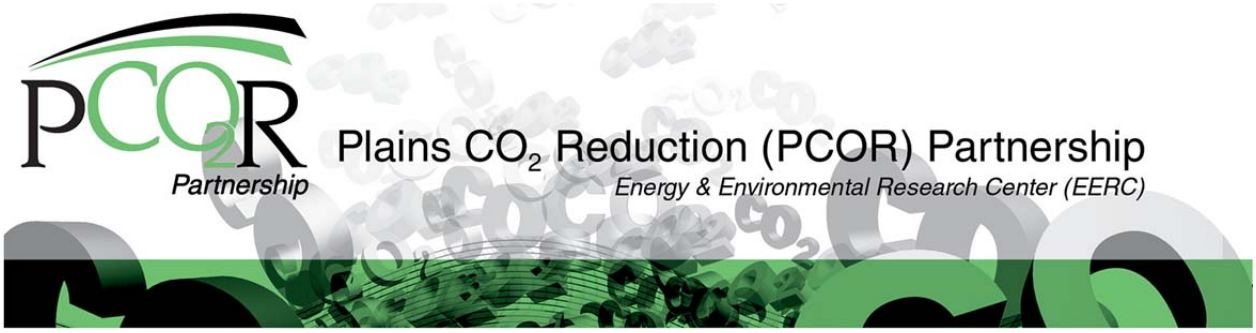

PUBLIC SITE UPDATES

Plains CO_2 Reduction (PCOR) Partnership Phase III
Task 2 – Deliverable D13

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ACKNOWLEDGMENT

The Plains CO_2 Reduction Partnership Web team would like to acknowledge Tera Buckley for her efforts on behalf of this update to the public Web site. Before her departure from the EERC in May 2012, Ms. Buckley was the Web site task lead. In that position, she was responsible for the design of the product as well as ensuring its progress and delivery. As part of this effort, she introduced concepts to improve tracking capability and content presentation. Her creativity, organizational skills, and enthusiasm are greatly appreciated.

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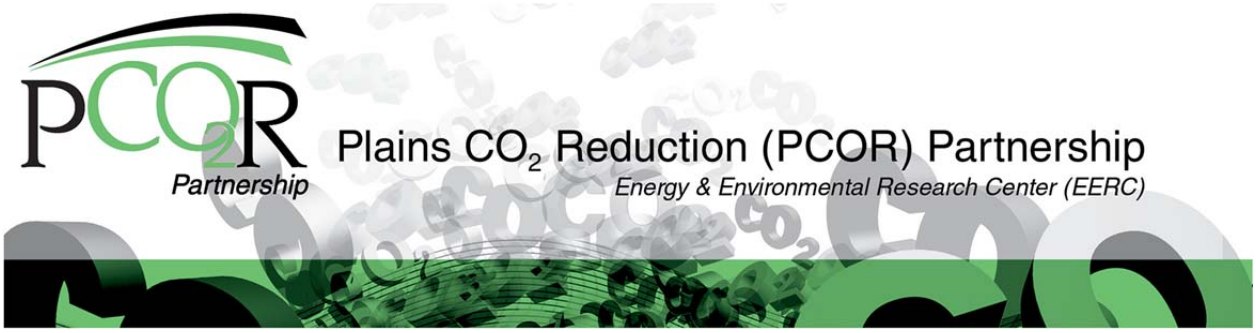
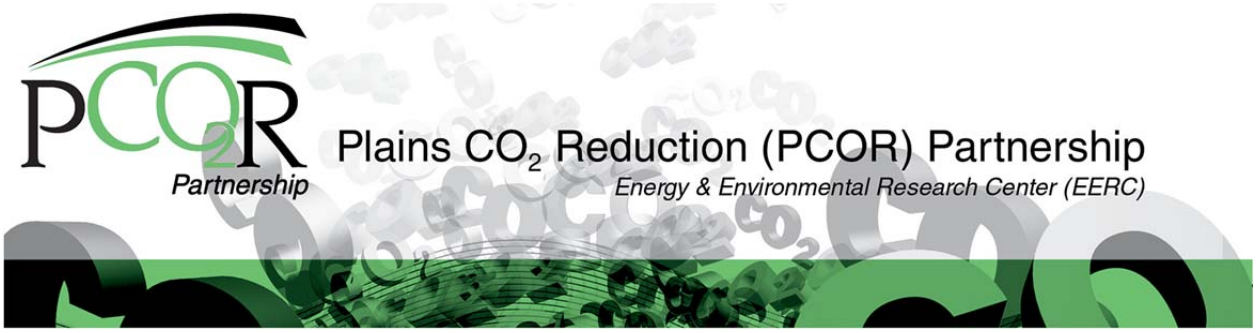


PUBLIC SITE UPDATES

EXECUTIVE SUMMARY

This report summarizes the proposed 2012 contractual update to the Plains CO_2 Reduction (PCOR) Partnership public Web site for the period from January 15, 2010, to July 31, 2012. The proposed update includes revisions to the Home Page and Educator Page and an expansion of the CO_2 Sequestration Projects section from one page to nine pages in order to include information on each of the Phase III projects and the Phase II verification test projects, as well as information on other carbon capture, utilization, and storage projects in the PCOR Partnership region. In addition to a summary of the revisions and additions that comprise the D13 update for 2012, this report provides images and links to the proposed pages as well as existing pages where appropriate. The PCOR Partnership public Web site has been online since the summer of 2005, and the next contractual update is due in July of 2014.



PUBLIC SITE UPDATES

INTRODUCTION

The U.S. Department of Energy Office of Fossil Energy National Energy Technology Laboratory's Regional Carbon Sequestration Partnership (RCSP) Program requires that each regional partnership have a public Web site to inform and educate the general public regarding sequestration in general and regional RCSP activities. The Plains CO_2 Reduction (PCOR) Partnership's public Web site has been live since the summer of 2005, and the PCOR Partnership Outreach Team is continuously striving to keep the public Web site up to date and to provide content in an interesting format to the general public. During Budget Period 4, updates will happen every 2 years with minor elements being updated on a more regular basis. The most recent Web update was provided in January of 2010.

The PCOR Partnership is led by the Energy & Environmental Research Center (EERC) at the University of North Dakota. The public Web site subtask is managed by Dan Daly, EERC Research Manager. Major contributors providing content to the public Web site include PCOR Partnership public Web site team members Tera Buckley (formerly of the EERC), Dan Daly (Task Leader), Katherine Anagnost, and Charlene Crocker. The Web site update was supported by the Programming, Communications, and Graphics groups at the EERC as well as other PCOR Partnership personnel.

SITE IMPROVEMENTS

The updates proposed to the PCOR Partnership public Web site for the period from January 15, 2010, to July 31, 2012, includes updates to the Home Page and Educator Page, replacing the *PCOR Partnership Atlas*, 3rd Edition, with the 4th Edition and an expansion of the CO_2 Sequestration Projects section from one page to nine pages in order to include information on the Phase III projects as well as other carbon capture, utilization, and storage (CCUS) projects in the PCOR Partnership region. Except where noted, the proposed Web pages will go live pending approval of the new pages described below.

HOME PAGE

Changes to the home page (Figure 1) include the addition of the PCOR Partnership annual meeting button and Bell Creek fact sheet link added to the left column. The home page has also been updated to include the image of the newly published *PCOR Partnership Atlas*, 4th Edition and the new CO_2 projects map that links to the CO_2 Sequestration Projects page. With the exception of the new map image, all changes have already been implemented on the existing public Web site home page.

Figure 1. Updated home page.
Test link: http://stage.undeerc.org/PCOR/default.aspx
Existing link: www.undeerc.org/PCOR

THE ATLAS, 4TH EDITION

The PCOR Partnership Regional Atlas page (accessed via the home page [test link] and the News and Publications menu selection [not part of the test site]) has been updated with content from each of the seven chapters and the reference section of the 4th edition (published June 2012). Figure 2 shows the content listing. Each topic listed is a hyperlink to the corresponding page in the Atlas. In addition, the PDF of the entire atlas can be downloaded from both the home page and the Atlas page. These pages became available on the public Web site in June 2012.

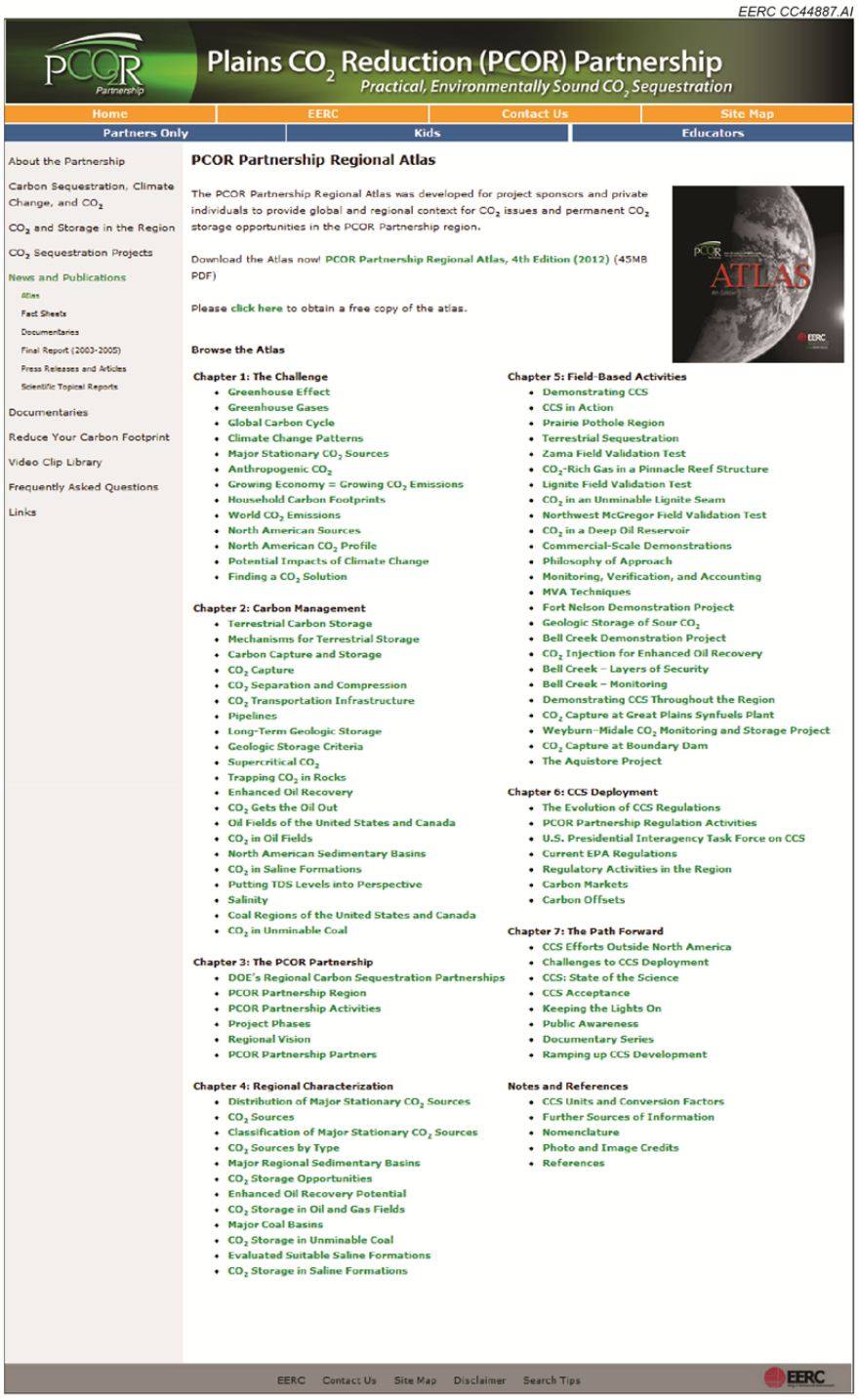


Figure 2. PCOR Partnership Regional Atlas, 4th Edition, Web page.
Test link: http://stage.undeerc.org/PCOR/newsandpubs/atlas.aspx;
Existing link: www.undeerc.org/PCOR/newsandpubs/atlas.aspx

EDUCATOR PAGE

The Educators page (Figure 3) has been updated to include the following new sections:

- See Us at These Upcoming Education Events for Teachers
- Recent Educational Events for Teachers

Information on the Prairie Energy and Carbon Teacher Training Institute (PECTTI), a recent collaboration between the PCOR Partnership and Prairie Public Broadcasting (www.prairiepublic.org), has been added, including an external link to the lesson plans developed by teachers attending the workshop (www.prairiepublic.org/education/teachers/media-resources/eerc-2011-lesson-plans). The page has also been enhanced with photos of the recent PECTTI. This page will go live once it is approved by program management.

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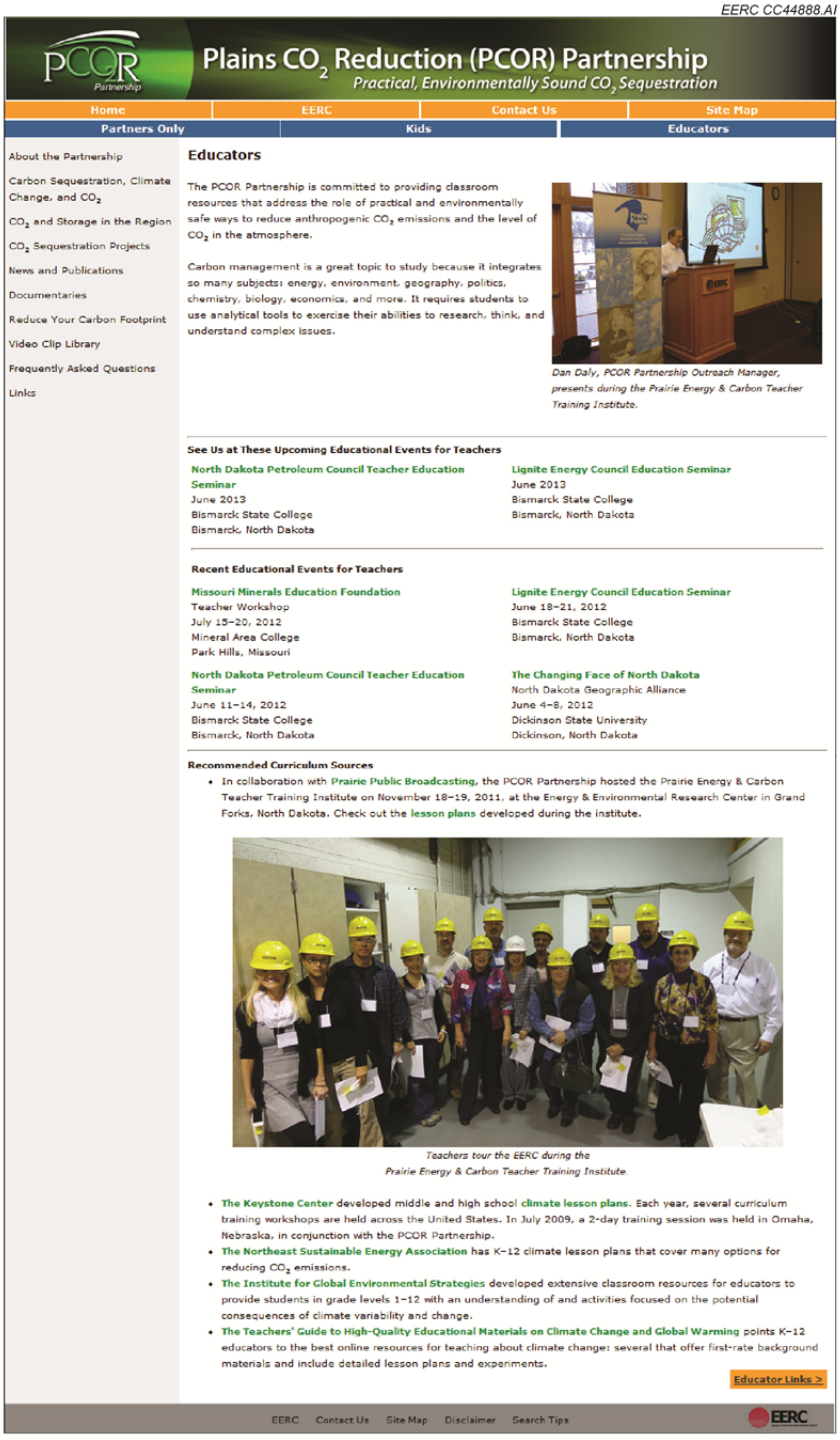

Figure 3. Updated Educators page.
Test link: http://stage.undeerc.org/pcor/educators/
Existing link: www.undeerc.org/PCOR/educators/default.aspx

CO_2 SEQUESTRATION PROJECTS

Formerly one page, this section has been expanded to include information on major CCUS projects in the PCOR Partnership region, including separate pages for the four Phase II field validation tests and the two Phase III demonstrations. The landing page for this section, presented in Figure 4, is a map of the region with each project labeled. Clicking on the project label opens a new window containing a brief description of the project and a link to a separate page. Figure 5 shows all of the project windows, which open separately on top of the existing window.

Figure 4. Updated CO_2 Sequestration Projects landing page.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/#
Existing link: www.undeerc.org/PCOR/co2seqprojects/default.aspx

Figure 5. Project information boxes that pop up when hot spots (project titles) are selected on the landing page (Figure 4).

Test link: http://stage.undeerc.org/pcor/co2seqprojects/#

Existing link: www.undeerc.org/PCOR/co2seqprojects/default.aspx

Each project has its own Web page. The four PCOR Partnership Phase II field validation "Learn More" links go to the existing PCOR Partnership fact sheets for each of these activities (images not included). The Basal Cambrian "Learn More" link goes to the Geologic Characterization of the Basal Cambrian System page presented in Figure 6, which provides a description of this Phase III activity.

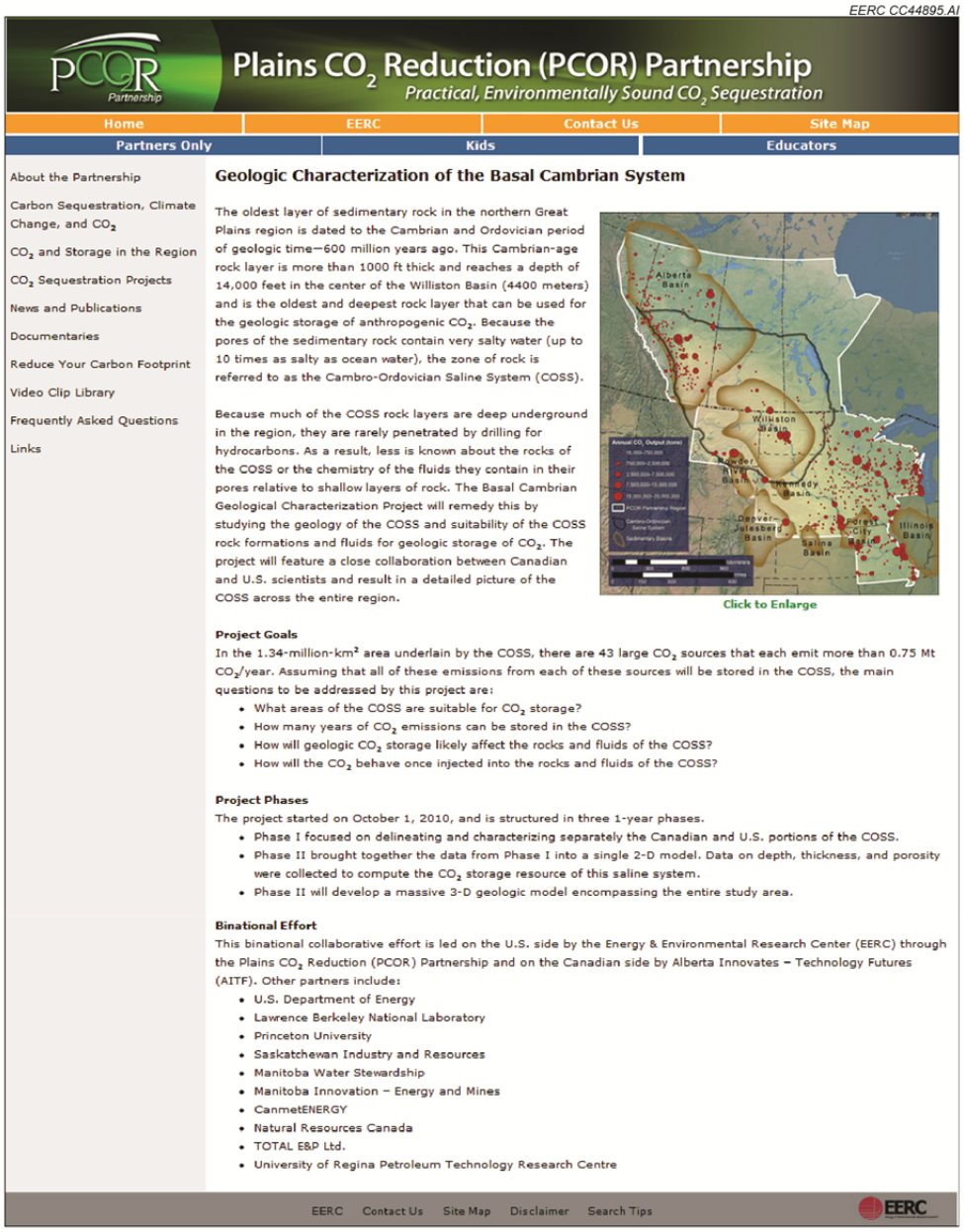

Figure 6. New Phase III Basal Cambrian activity page, accessible from the CO_2 Sequestration Projects landing page.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/BasalCambrian.aspx
No equivalent link exists.

The Bell Creek "Learn More" link goes to the Bell Creek Integrated EOR and CO_2 Storage Project page presented in Figure 7. This page outlines the dual nature of the project—the Denbury Onshore LLC (Denbury), enhanced oil recovery (EOR) project and the collaborative effort with the PCOR Partnership to demonstrate CCUS under the RCSP. This page includes options to download the Bell Creek test site fact sheet (Deliverable D15), the Bell Creek test site poster (Deliverable D25), and the Bell Creek PowerPoint presentation (Deliverable D18). Links on the page offer the visitor the opportunity to learn more about both projects by clicking on the "Learn More" hyperlink for each project. The visitor can also learn more about utilization of CO_2 for EOR by clicking on the "Learn About EOR" link, which goes to the existing CO_2 Flooding page (www.undeerc.org/PCOR/sequestration/flooding.aspx).

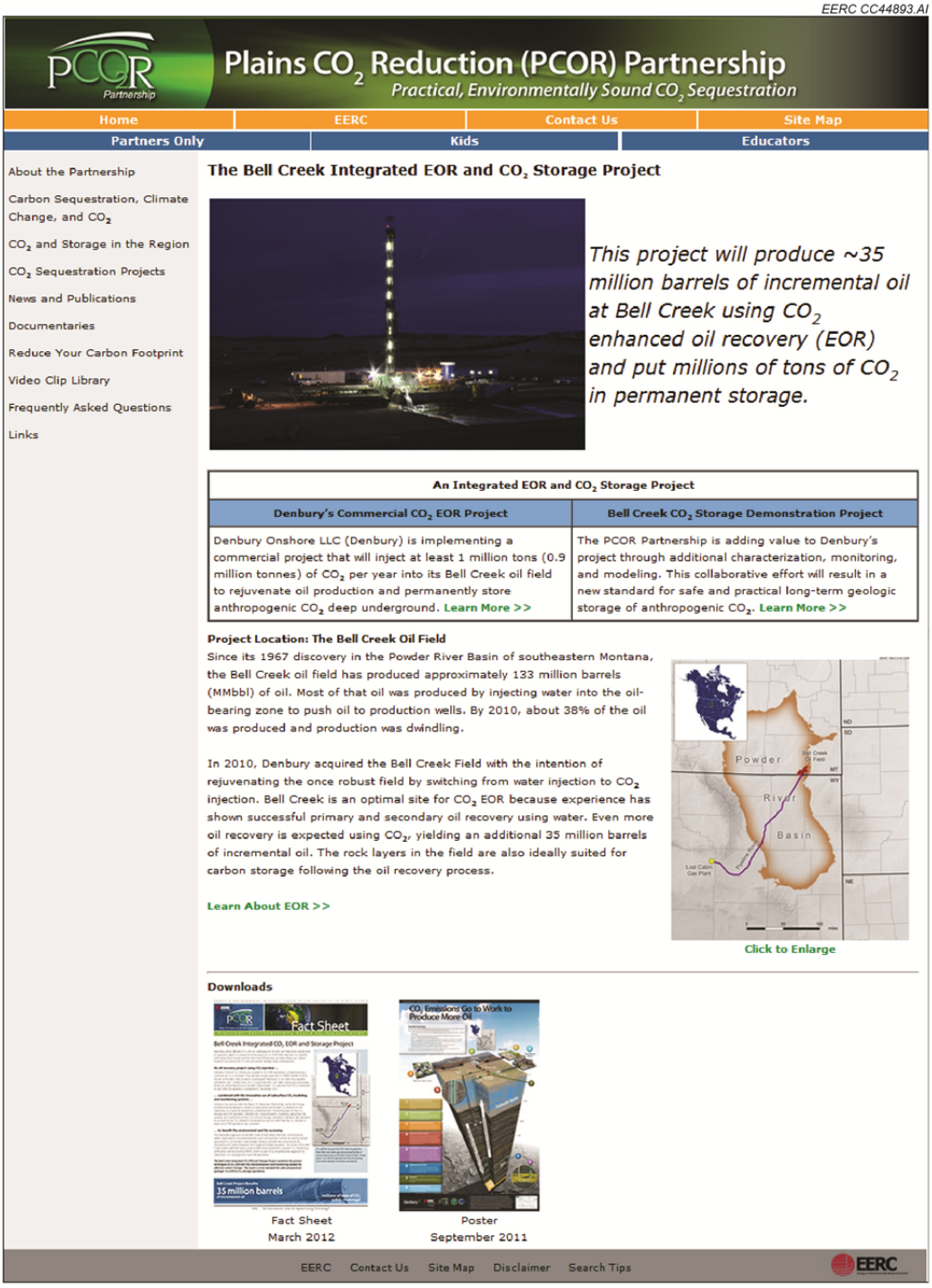

Figure 7. New Phase III Bell Creek Integrated EOR and CO_2 Storage Project page, accessible from the CO_2 Sequestration Projects landing page.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/BellCreek.aspx
No equivalent link exists.

The “Learn More” link for Denbury’s Commercial CO_2 EOR Project goes to the page Denbury’s Commercial Project (Figure 8), which provides a general description of the four main steps involved the Bell Creek EOR project. This page also includes external hyperlinks to Denbury’s Web site (www.denbury.com) and to their Greencore Pipeline Web site (www.greencorepipeline.com)

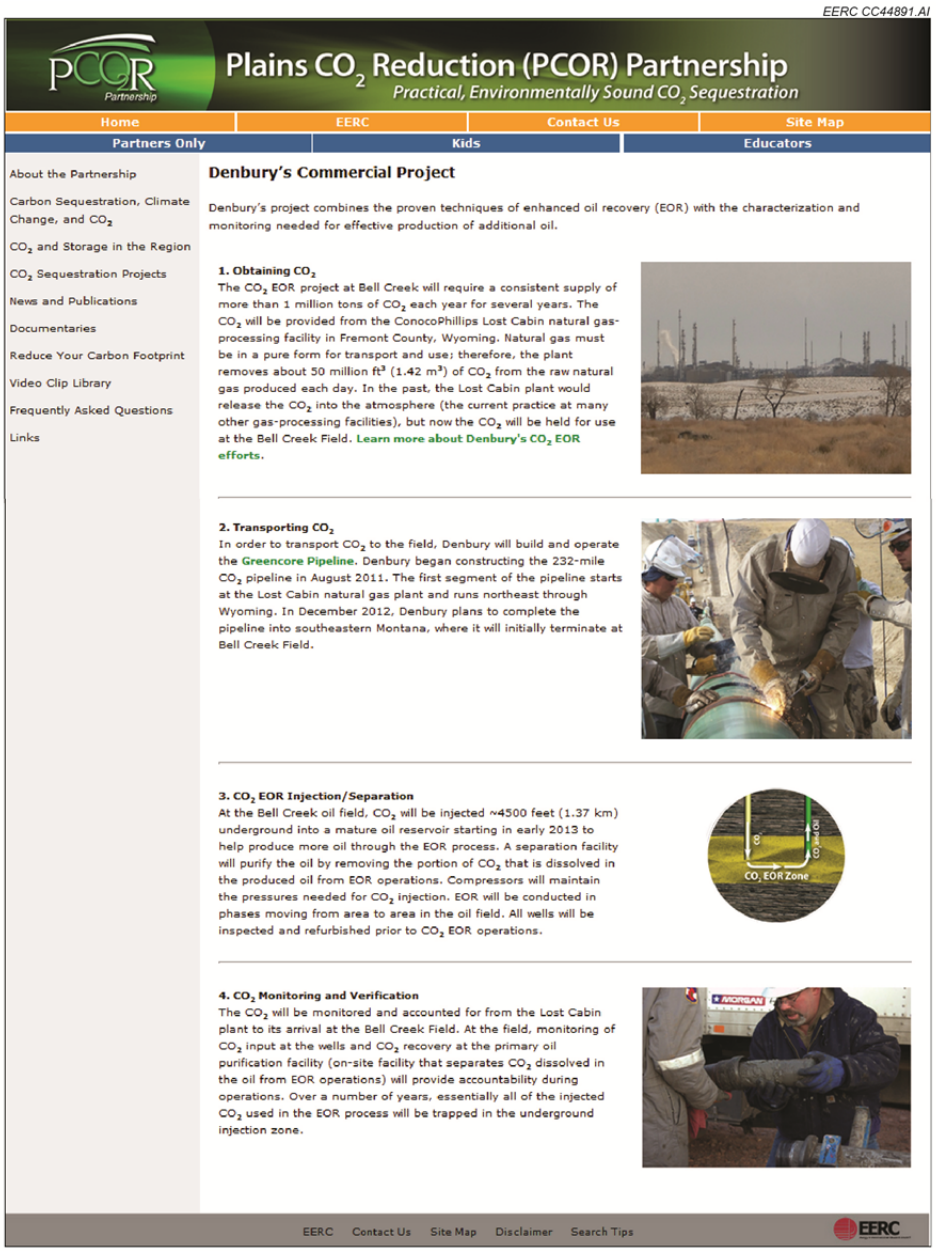

Figure 8. New page describing Denbury's commercial CO_2 EOR project at Bell Creek (linked from Figure 7).
Test link: http://stage.undeerc.org/pcor/co2seqprojects/Denbury.aspx
No equivalent link exists.

The "Learn More" link for Bell Creek CO_2 Storage Demonstration Projects goes to the PCOR Partnership Phase III demonstration collaboration with Denbury presented in Figure 9. This page summarizes the Phase III activities at Bell Creek. This page also has the link to an interactive version of the Integrated Approach concept diagram (presented in Figure 10a) whereby the visitor can learn more about some of the components of the diagram by hovering over each circle (see Figure 10b).

Figure 9. New page describing the PCOR Partnership collaboration with Denbury at Bell Creek.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/BellCreekDemonstration.aspx
No equivalent link exists.

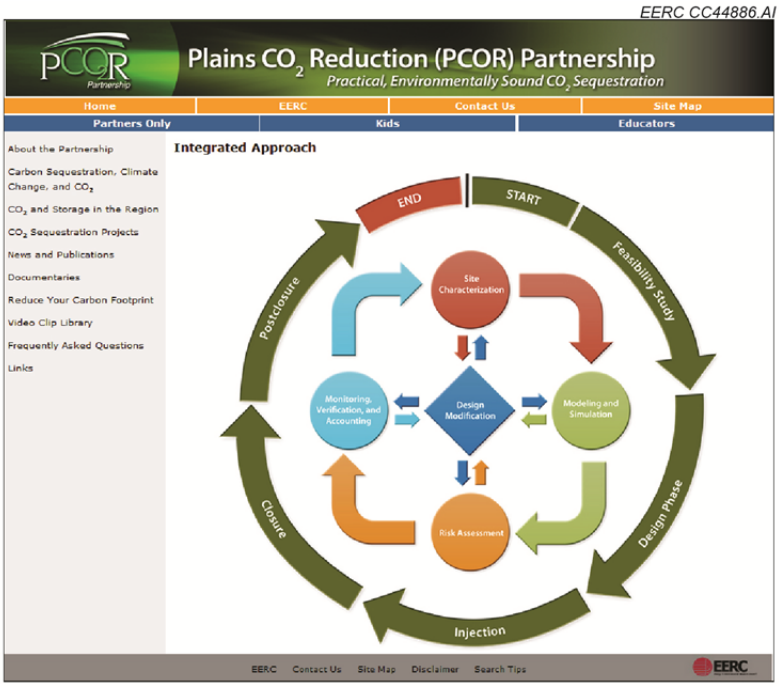

Figure 10a. PCOR Partnership Integrated Approach interactive diagram.

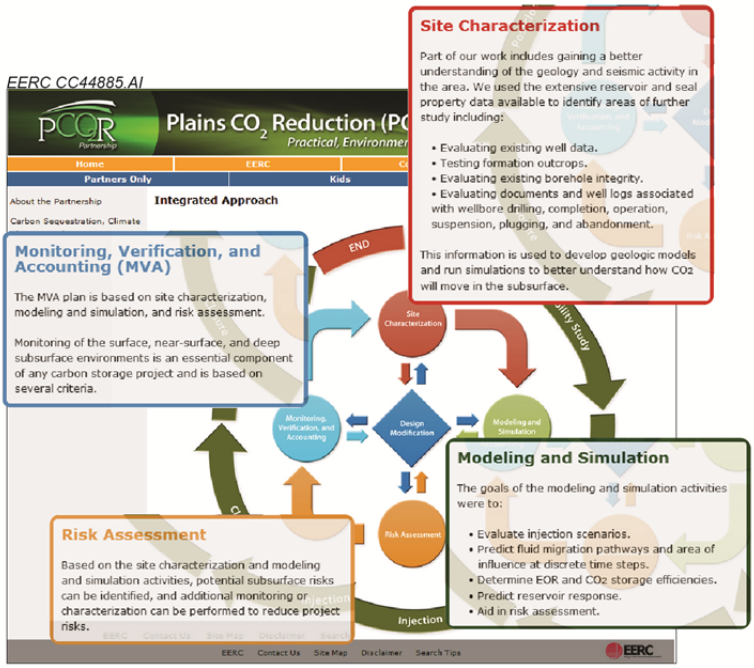

Figure 10b. Boxes appear individually as the visitor hovers the cursor over each circular component.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/IntegratedApproach.aspx
No equivalent link exists.

The Fort Nelson "Learn More" link goes to the Fort Nelson CCS Feasibility Project page presented in Figure 11. This page describes the PCOR Partnership Phase III demonstration collaboration with Spectra Energy near Fort Nelson, British Columbia. The page includes external links to the Carbon Sequestration Leadership Forum (www.cslforum.org/index.html?cid=nav_index) and to Spectra Energy's Fort Nelson Web page (www.spectraenergy.com/Sustainability/Environment/Carbon-CapturStorage/).

Figure 11. New Fort Nelson Phase III demonstration, accessible from the CO_2 Sequestration Projects landing page.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/FortNelson.aspx
No equivalent link exists.

The Aquistore "Learn More" link goes to the new Aquistore Project page presented in Figure 12. The page provides a brief description of the project and external links to the project's Web site (www.ptrc.ca/aquistore_overview.php) and to the related SaskPower project Web site (www.saskpower.com/sustainable_growth/projects/carbon_capture_storage.shtml).

Figure 12. New Aquistore Project page, accessible from the CO_2 Sequestration Projects landing page.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/Aquistore.aspx
No equivalent link exists.

The Boundary Dam "Learn More" link goes to the new SaskPower Boundary Dan project page presented in Figure 13. The page provides a brief description of the project and an external link to the project's Web site (www.saskpower.com/sustainable_growth/projects/carbon_capture_storage.shtml).

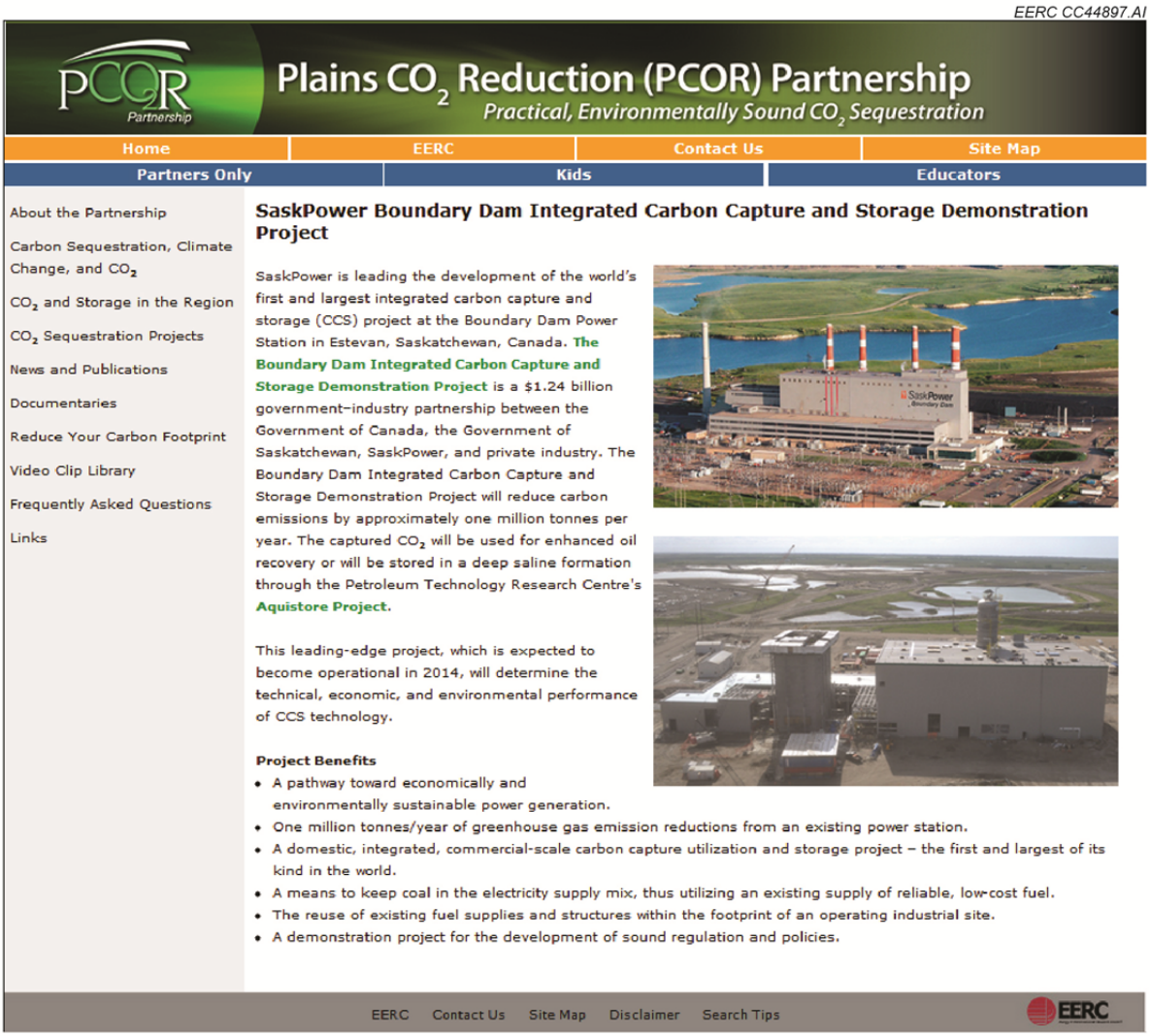

Figure 13. New SaskPower Boundary Dam project, accessible from the CO_2 Sequestration Projects landing page.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/SaskPower.aspx
No equivalent link exists.

The Quest "Learn More" link goes to the new Quest CCS Project page presented in Figure 14. The page provides a brief description of the project and an external link to the project's Web site (www.shell.ca/home/content/can-en/aboutshell/our_business/business_in_canada/upstream/oil_sands/quest/).

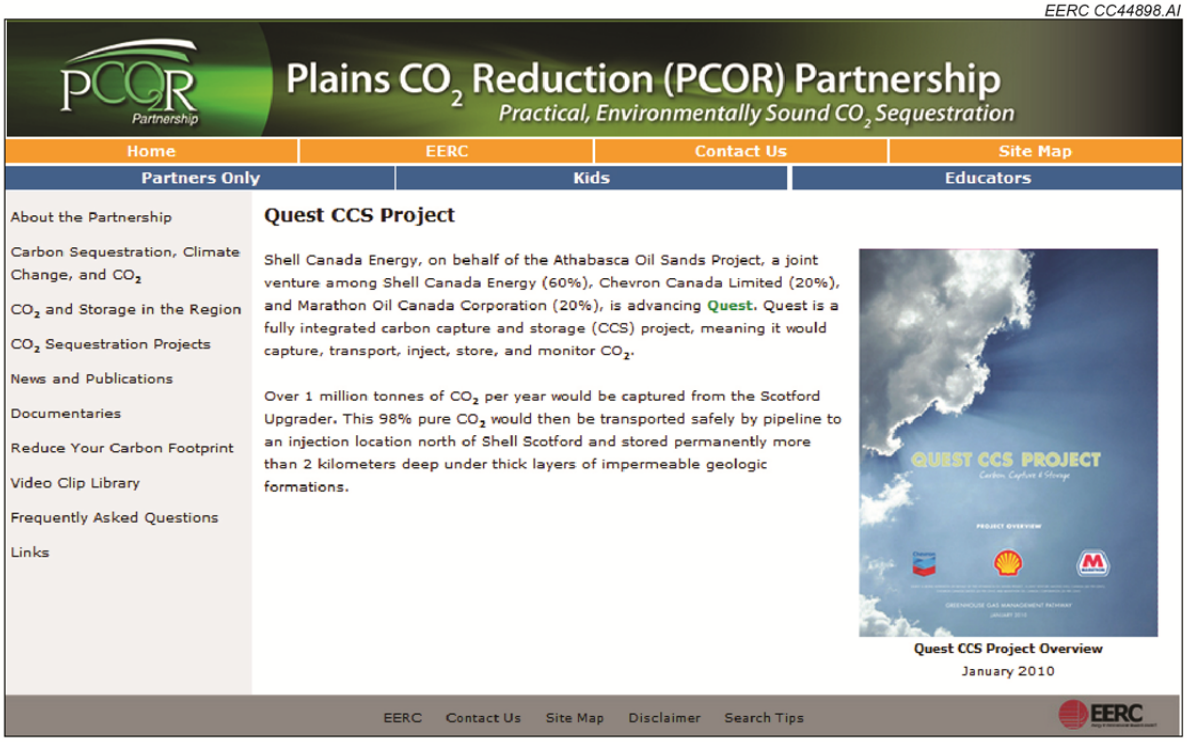

Figure 14. New Quest CCS Project page, accessible from the CO_2 Sequestration Projects landing page.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/Quest.aspx
No equivalent link exists.

The Weyburn–Midale "Learn More" link goes to the new Weyburn–Midale CO_2 Project page presented in Figure 15. The page provides a brief description of the project and external links to the commercial companies' project Web sites (Cenovus: www.cenovus.com/operations/oil/weyburn.html and Apache Canada: www.apachecorp.com/Operations/Canada/Saskatchewan/index.aspx), to Dakota Gasification Company's CO_2 Capture and Storage Web page (www.dakotagas.com/CO2_Capture_and_Storage/index.html) and to the IEA GHG Weyburn–Midale CO_2 Monitoring and Storage Project Web site (www.ptrc.ca/weyburn_overview.php).

These pages will go live once they are approved by program management.

Figure 15. New Weyburn–Midale CO_2 Project page, accessible from the CO_2 Sequestration Projects landing page.
Test link: http://stage.undeerc.org/pcor/co2seqprojects/Weyburn.aspx
No equivalent link exists.

FUTURE WORK

The next Web update is due in July of 2014. At this time, an update of the Web site design itself is anticipated, including implementing a more user-friendly YouTube-type video player, greater interactivity, updated information on active projects, and more materials targeting K–12 education (for teachers and students). These changes will be made as part of the effort to provide products that will serve the needs of key audiences, increase overall traffic to the site, and improve our ability to track and assess Web site use.