

TransCanada Keystone Pipeline Project

Master Services Agreement (US)

No. 10387

effective

July 31, 2012

between

TransCanada Keystone Pipeline LP,

by its agent, TC Oil Pipeline Operations Inc.

and

Environmental Resources Management, Inc.

for

Supplemental Environmental Impact Statement

Third-Party Contractor Services



MASTER SERVICES AGREEMENT No. 10387

This Master Agreement for the provision of services is entered into this 31st day of July, 2012 ("Effective Date") between:

TransCanada Keystone Pipeline, LP,
a limited partnership formed under the laws of Delaware
by its agent, TC Oil Pipeline Operations Inc.
("Company")

- and -

Environmental Resources Management, Inc.,
a corporation formed under the laws of Pennsylvania and having an
office at 206 E. 9th Street, Suite 1700, Austin, TX 78701-2518
("Third-Party Contractor").

1. TERM

- 1.1 This Agreement commences on the Effective Date and terminates on December 31, 2015 or upon the termination of all Release Orders issued hereunder, whichever is later, unless terminated earlier in accordance with this Master Agreement (collectively, the "Term").

2. DEFINITIONS

- 2.1 In addition to terms defined elsewhere in this Agreement, when capitalized, the following terms have the meanings ascribed under this Section:
- a. **Affiliate** - at any given time, in relation to a Party, any company, partnership, corporation, or other entity which, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Party; where "control" means the possession, either directly or indirectly, of the power to direct or cause the direction of the management and policies of the relevant company, partnership, corporation, or other entity, whether through the ownership or control of voting interests, by contract, or otherwise.
 - b. **Agreement** - collectively, the following documents:
 - i. this Master Agreement;
 - ii. Schedule "A" - Scope of Work;
 - iii. Schedule "B" - Pricing Schedule;
 - iv. Schedule "C" - Form of Amendment;
 - v. Schedule "D" - Rules and Guidelines;
 - vi. Schedule "E" - Form of Change Order;
 - vii. Schedule "F" - Form of Release Order;
 - viii. all amendments, Release Orders, and Change Orders issued in relation to this Agreement; and
 - ix. all drawings, plans, and specifications listed in the above schedules or otherwise incorporated into this Agreement.
 - c. **Change Order** - a written order, in the form provided in Schedule 'E' or such other form as may be directed by the Company, authorizing a change to a schedule, the Scope of Work, or the Price.
 - d. **Claim** - includes claims, losses, injuries, costs, damages, and lawsuits.
 - e. **Company** - shall mean the TransCanada entity named in the preamble together with, as applicable, all of its wholly-owned subsidiaries, Affiliates, to whom Work is being supplied by the Third-Party Contractor pursuant to the terms of this Agreement.
 - f. **Company Representative** - the person identified in Section 20.1.
 - g. **Confidential Information** - information in whatever form, including but not limited to verbal, written, and electronic information, data, programs, processes, accounts, specifications, and reports, that is disclosed by the Company or the Third-Party Contractor to the other party pursuant to this Agreement, and includes all derivative information, reports, interpretations, and analyses generated therefrom. Confidential Information does not include information that is: (i) lawfully known to the receiving party prior to its receipt from the Disclosing Party; (ii) generally known to the public, as of the date and to the extent that such information becomes so generally known; (iii) lawfully received by the receiving party from an identified third party not bound by the Disclosing Party to maintain such information as confidential; or (iv) is



independently developed. Confidential Information, as used throughout this document, does not refer to USG Classified materials, the treatment of which is covered under existing law notwithstanding this Agreement. For clarity, “Receiving Party” shall mean the party receiving Confidential Information and “Disclosing Party” shall mean the party disclosing the Confidential Information.

- h. **Third-Party Contractor** – shall have the meaning ascribed to such term in the preamble.
- i. **Third-Party Contractor Representative** - the person identified in Section 20.2.
- j. **Force Majeure** - any cause or event beyond the reasonable control of the Party claiming a suspension of its obligations under this Agreement that is not caused by or attributable to the negligence or lack of reasonable foresight of the claiming Party, and which by the exercise of due diligence such Party would not have been able to avoid or overcome. Force Majeure does not include: (i) late delivery of the Third-Party Contractor’s equipment, unless caused by a Force Majeure event; (ii) delays resulting from breakdown of the Third-Party Contractor’s equipment; (iii) delays caused by inefficiencies on the part of the Third-Party Contractor; (iv) late performance caused by inefficiencies on the part of the Third-Party Contractor; (v) late performance caused by inefficiencies or failure on the part of the Third-Party Contractor to hire adequate labor and/or supervisory personnel; or (vii) financial considerations of the Party claiming Force Majeure.
- k. **Department** – United States Department of State.
- l. **Intellectual Property** – shall have the meaning set forth in Section 22.2.
- m. **Invasive Work** – shall mean any work that may include but not be limited to ground disturbing activities, field sampling, soil and or water sampling, soil probes for wetland assessment, or shovel testing and excavations for archaeological site assessment,
- n. **Key Personnel** - the specific roles, employees, and representatives of the Third-Party Contractor named in a Release Order to perform Work.
- o. **Law** - the common law, the law of equity, and all local, state, national, and foreign statutes, codes, regulations, rules, judgments, orders, rulings, and other restrictions, directives, requirements or instrumentalities having jurisdiction over the Parties, the Work, the Work Site, or this Agreement.
- p. **Parties** - both the Company and the Third-Party Contractor.
- q. **Party** - either the Company or the Third-Party Contractor.
- r. **Pre-existing IP** – shall have the meaning set forth in Section 24.2.
- s. **Price** - as specified in Schedule 'B', the lump sum, unit price, rate, and expenses, exclusive of any federal, state, or local sales tax in force from time to time, to be paid to the Third-Party Contractor by the Company for the performance of Work.
- t. **Prime Rate** - the per annum rate of interest equal to the prime rate (or an equivalent thereof) from time to time announced by JP Morgan Chase & Co., or any successor thereof, for short-term corporate loans in New York, New York.
- u. **Project Mediator** – shall have the meaning set forth in Section 23.2.
- v. **Proposal** – Third-Party Contractor’s Proposal entitled, Keystone XL Oil Pipeline Project Request For Proposal Number 6152012, dated June 27, 2012.
- w. **Release Order** - a written document issued by the Company, in the form provided in Schedule 'F' titled “Release Order” or such other form as may be directed by the Company, including a purchase order, that requests specific Work be performed by the Third-Party Contractor.
- x. **Request for Proposal** – Department’s Request for Proposal No. 6152012 dated June 15, 2012.
- y. **Rules and Guidelines** - the Company’s rules, regulations, policies, procedures and guidelines, as updated, amended, or replaced from time to time and provided to Third-Party Contractor, that the Third-Party Contractor must follow in performing the Work.
- z. **Scope of Work** - the description, attached as Schedule ‘A’, of the services to be performed by the Third-Party Contractor under this Agreement, including any deliverables.
- aa. **Software** – shall have the meaning set forth in Section 21.2.



- bb. **Subcontractor** - the Third-Party Contractor's contractors, subcontractors, sub-suppliers, and sub-vendors.
- cc. **Term** – shall have the meaning set forth in Section 1.1.
- dd. **Volume Growth Incentive** – shall have the meaning set forth in Section B4.0 in Schedule 'B'.
- ee. **Warranty Period** – shall have the meaning set forth in Section 21.
- ff. **Work** - in whole or in part, the performance of the Scope of Work, including Third-Party Contractor's proposal. For the avoidance of doubt, the parties do not anticipate the performance of any Invasive Work under this agreement, and agree if the parties wish to include Invasive Work at a later date that the parties shall negotiate additional terms to cover said Work.
- gg. **Work Site** - the location where any Work is to be performed.

3. MASTER AGREEMENT

- 3.1 The Parties agree that, unless otherwise agreed by the parties in writing, only TransCanada may issue a Release Order to have Work performed by the Third-Party Contractor under this Master Agreement, and that both Parties will be bound by the terms of this Master Agreement.
- 3.2 Where Work is performed by the Third-Party Contractor, the Third-Party Contractor will look jointly and severally to TransCanada Keystone Pipeline LP and to the entity named in the Release Order for the performance of those obligations of the Company that arise out of or are related to such Work and Release Order, including, without limitation, payment and indemnification obligations.

4. PRICE

- 4.1 The Third-Party Contractor shall perform the Work for the Price calculated and payable in the manner provided in this Agreement, including Schedule 'B' or as set forth in the applicable Release Order or Change Order.
- 4.2 All amounts are in U.S. dollars unless specifically stated otherwise. If any portion of the Work is quoted in a currency other than U.S. dollars, the Third-Party Contractor will indicate the quoted foreign currency on the invoice upon the Company's request.
- 4.3 Except as set out in Schedule 'B', the Price is not subject to escalation during the Term.

5. PAYMENT AND TAXES

- 5.1 All applicable taxes calculated on the Price and to be paid to the Third-Party Contractor by the Company must be itemized in each invoice. If the Third-Party Contractor has a tax registration number for any such taxes, such registration number must be listed on the invoice.
- 5.2 Upon receipt of a correct invoice in a format reasonably acceptable to Company at the address provided in the applicable Release Order, the Company will pay monies owing within thirty (30) days of receipt of invoice. Notwithstanding the foregoing, the Company reserves the right to reasonably dispute any invoice.
- 5.3 Should either Party fail to make any payment when due under the terms of this Agreement, the unpaid amount will bear interest from the date such payment is due until paid in full at a rate per annum equal to the lower of two percent (2%) above the Prime Rate in effect on the date such payment was due, compounded semi-annually, and the maximum amount permitted by law.
- 5.4 The Third-Party Contractor shall pay all royalties, permit and license fees for the Work, labor, materials, and equipment, including the cost of all rental equipment, to be furnished by the Third-Party Contractor in connection with the supply of the Work and shall pay, or, as applicable, withhold and pay to the appropriate lawful authority, all workers' compensation premiums, unemployment insurance, social security, and employee income tax payments, withholdings, and payroll contributions together with all taxes that are payable or required to be withheld by the Third-Party Contractor.
- 5.5 The Company is not responsible for the payment of any taxes based on the Third-Party Contractor's income or gross or net receipts.
- 5.6 The Company is entitled to withhold and remit any amounts which are required by Law to be held back and remitted or paid to a third party and to hold back from payment any sums required pursuant to any lien legislation or Law.
- 5.7 The Third-Party Contractor shall keep the property of the Company free and clear of all liens, Claims, and encumbrances arising from the Work, provided however that this provision will not operate to deprive the Third-Party Contractor of statutory lien rights that may arise in the event of non-payment by the Company.



- 5.8 If any amount is disputed or is due to the Company by the Third-Party Contractor, the Company has the right of set-off against the Third-Party Contractor for such amount.
- 5.9 Unless otherwise specified in a Release Order, the Third-Party Contractor will be responsible for and shall bear any and all risk of loss or damage to any Work until delivery of such Work to the Company. The Third-Party Contractor is responsible for any damage which occurs due to non-conforming packaging.
- 5.10 Upon Company's signature of this Agreement, Third-Party Contractor will issue an invoice for 20% of the services to be performed hereunder. Thereafter, Third-Party Contractor will issue invoices on a monthly basis for services performed under this Agreement. The advance payment will be applied to the final invoice(s).

6. CONDUCT OF WORK

- 6.1 This Agreement is for the provision of services to the Department in conducting a review consistent with the National Environmental Policy Act and its implementing regulations. The performance of the Work or any part thereof will be subject to direction by the Department's Project Manager, or other Department representative(s) identified by the Department's Project Manager. Any contact between the Company and the Third-Party Contractor (other than billing and payment) shall be routed through the Department's staff.
- 6.2 This Master Agreement governs the performance of the Work and supersedes to the extent of any ambiguity or conflict all terms and conditions on any purchase order or Release Order or that may be submitted by the Third-Party Contractor that are inconsistent with this Master Agreement. Failure of the Company to object to any term or condition inserted by the Third-Party Contractor on any purchase order or Release Order or otherwise submitted by the Third-Party Contractor will not be construed as a waiver of the terms and conditions set forth in this Master Agreement.
- 6.3 Each Release Order must be signed by the Company and Third-Party Contractor and thereafter forms part of this Agreement upon the first to occur of: (i) the Third-Party Contractor's execution of the Release Order; or (ii) the Third-Party Contractor's commencement of the Work in accordance with the Release Order.
- 6.4 At all times during the performance of the Work, the Third-Party Contractor shall co-operate with the directors, officers, employees, representatives, and contractors of the Company, subject to the oversight of the Department consistent with paragraph 6.1. Where Work or work is performed by a third party for the Company, the Third-Party Contractor shall also co-operate with such third party.
- 6.5 The Third-Party Contractor is an independent contractor and shall perform the Work as such subject to the supervision of the Department consistent with paragraph 6.1. The Work will be performed by the Third-Party Contractor under its own direction and control and at its own risk. Any provision of this Agreement that may appear to give the Company a measure of control over the details of the Work shall not be construed in a manner that is inconsistent with the Third-Party Contractor having authoritative control of the details of the performance of the Work subject to the supervision of the Department. Nothing in this Agreement is to be construed as creating a partnership, joint venture, master and servant, or principal and agent relationship between the Company and the Third-Party Contractor. The Third-Party Contractor does not have the authority to enter into agreements or incur liability on behalf of the Company and may not represent to any third party that it has the power to do so unless written authorization has been received from the Company in advance. Neither the Third-Party Contractor's nor Subcontractors' employees are eligible for the benefits the Company provides its employees.
- 6.6 The Third-Party Contractor acknowledges and agrees that this Agreement does not grant the Third-Party Contractor an exclusive right to perform the Work, or any work.

7. ASSIGNMENT AND SUBCONTRACTING

- 7.1 The Third-Party Contractor may not assign this Agreement in whole or in part without the prior consent of the Department and Company and any purported assignment of the Agreement without prior consent of the Department and the Company shall be null and void *ab initio*. The Company may, at any time with approval of the Department and upon written notice to Third-Party Contractor, assign its rights or delegate its duties under this Agreement.
- 7.2 The Third-Party Contractor may not subcontract any portion of this Agreement without the prior written consent of the Department and any purported subcontract of this Agreement without prior consent of the Department shall be null and void *ab initio*.
- 7.3 The Third-Party Contractor shall ensure that all Subcontractors are bound by all of the obligations imposed under this Agreement that directly or indirectly apply to the portion of the Work they are subcontracted to perform.
- 7.4 Notwithstanding Section 7.3, the Third-Party Contractor will remain responsible to the Department and the Company for all obligations and liabilities with respect to any subcontracted Work.



8. KEY PERSONNEL

- 8.1 Key Personnel assigned to perform the Work may not be removed from the performance of the Work they are designated to perform without the prior written consent of the Department.
- 8.2 If any of the Key Personnel should leave the employment of the Third-Party Contractor or for any cause beyond the reasonable control of the Third-Party Contractor, or be unable to perform Work, alternate personnel will be promptly proposed by the Third-Party Contractor. If, upon the Department's review of the proposed alternate, including, at the Department's option, interviewing the proposed alternate at the expense of the Third-Party Contractor, the Department approves of such proposed alternate, the proposed alternate will be deemed to be Key Personnel. If, for any reason, the Third-Party Contractor is unable to perform Work through the Key Personnel or is unable to provide alternate personnel acceptable to the Department, the Company may, with written approval of the Department, terminate this Agreement or any applicable Release Order immediately.
- 8.3 The Department may, by notice, without explanation, and not in violation of Third-Party Contractor's human resources policies, require the Third-Party Contractor to remove from the performance of the Work any Subcontractor and/or any employee or representative of the Third-Party Contractor, including Key Personnel. Any Key Personnel removed from the performance of the Work must be replaced forthwith in accordance with Section 8.2.
- 8.4 In the event Key Personnel or any other employee or representative of the Third-Party Contractor or any Subcontractor performs Work at the Work Site, the Company shall provide the Key Personnel or other employee or representative of the Third-Party Contractor or Subcontractor with the items and identification necessary to obtain access to the Work Site, including all permissions to provide timely access and egress to and from the relevant Work Site. The Third-Party Contractor shall: (i) take commercially reasonable security measures to ensure that such items and identification are not lost, obtained, or utilized by anyone not expressly authorized by the Company in writing to receive or use them; and (ii) ensure that such items and identification are promptly returned to the Company upon: (a) completion or termination of the Work being performed by such Key Personnel, employee or representative of the Third-Party Contractor or any Subcontractor; (b) termination of this Agreement; or (c) request by the Company.

9. CONFLICT OF INTEREST

- 9.1 Subject to Section 9.2, the Third-Party Contractor will not perform any services for or enter into any contract with others that may conflict with its contractual, professional, equitable or other obligations to the Company, its subsidiaries, affiliates and joint ventures without first obtaining the written approval of the Company and the Department. Please refer to Section 7 of Third-Party Contractor's Proposal entitled, Keystone XL Oil Pipeline Project Request For Proposal Number 6152012, dated June 27, 2012 for a description of Third-Party Contractor's conflict of interest statement.
- 9.2 The Third-Party Contractor represents and warrants that there is not and will not be a familial, business, contractual, professional, or ethical conflict of interest among the Third-Party Contractor and the Company and their respective directors, officers, employees, representatives, subcontractors, and Subcontractors as a result of the performance of this Agreement. The Third-Party Contractor shall provide a notice to the Department and the Company if any conflict of interest arises during the Term. If a conflict of interest should arise during the Term, this Agreement may, at the option of the Company, with prior written approval by the Department, be immediately terminated.

10. ACCESS TO INFORMATION

- 10.1 The Third-Party Contractor understands and agrees that the Third-Party Contractor, its employees, and Subcontractors will not attempt to access or have access to any computer or computer systems of the Company, except under the supervision of and in accordance with the instructions given by the Department and the Company Representative. The Third-Party Contractor shall ensure that: (i) the Department and the Company Representative are informed in advance as to any required usage of a computer or computer system of the Company, and that the written approval of the Company Representative is obtained prior to any such usage; (ii) no attempt may be made to obtain access to any information contained in any computer or computer system of the Company, other than as specifically authorized by the Company Representative; and (iii) no program or data is entered into a computer or computer system of the Company, other than as specifically authorized by the Company Representative.

11. AUDIT ACCESS

- 11.1 The Third-Party Contractor agrees to keep records of account with supporting vouchers, invoices, and other documentation showing all expenditures made by the Third-Party Contractor in the performance of the Work for at least two (2) years following the end of the Term. All records and books of account must be kept in accordance with generally accepted accounting principles and procedures.



- 11.2 The Company has, at all reasonable times, upon ten (10) days prior written notice, the right to examine the records and books of account of the Third-Party Contractor or under the power of the Third-Party Contractor to the extent necessary to verify amounts claimed by the Third-Party Contractor pursuant to this Agreement or with respect to any dispute arising from this Agreement.

12. PUBLICITY

- 12.1 The Third-Party Contractor may not use the Company's names, logos, trademarks, or service marks in any advertising, promotional material, or publicity release relating in any way, directly or indirectly, to this Agreement, the Work or the results thereof, without the prior written consent of the Company. The Third-Party Contractor may not publish or cause to be published any statement, or encourage or approve any advertising or practice that is, or may reasonably be expected to be detrimental to the name, goodwill, reputation, trademarks, or service marks of the Company. Upon the Company's request, the Third-Party Contractor will immediately withdraw any statement and discontinue any advertisement or practice that the Company requests be withdrawn or discontinued.
- 12.2 Company may not release any information about the Work, in whole or in part, being performed by Third-Party Contractor, that the Department reasonably deems to be unduly prejudicial to Third-Party Contractor's ability to maintain an objective third party role in completing the Work under this Agreement. This provision shall not preclude the Company from releasing any information that the Company reasonably determines to be necessary to satisfy its corporate disclosure obligations. The Company may not publish or cause to be published any statement, or encourage or approve any advertising or practice that is, or may reasonably be expected to be detrimental to the name, goodwill, reputation, trademarks, or service marks of the Third-Party Contractor. Upon the Department's reasonable request, the Company will immediately withdraw any statement and discontinue any advertisement or practice that the Department deems to be in conflict with this provision.

13. CONFIDENTIALITY

- 13.1 Each party covenants that it shall not, and shall ensure that its directors, officers, employees, representatives, and Subcontractors do not, either directly or indirectly, use or disclose Confidential Information to any person, firm, partnership, company, corporation, or other entity or governmental authority without the prior written consent of the Disclosing Party, except as contemplated by this Agreement.
- 13.2 Each party may disclose Confidential Information only to those employees, representatives, and Subcontractors participating in the performance of the Work who have a need to know such Confidential Information to perform the Work and who have been informed of and agree to observe the terms of this Agreement relating to Confidential Information. The Third-Party Contractor may also disclose Confidential Information, to the extent necessary to carry out its performance of work under this contract, to the Department or other agencies as directed by the Department,
- 13.3 In the event that either party or any of its employees, representatives, or Subcontractors are required by Law to disclose Confidential Information, the party receiving the request shall: (i) if permitted by law, immediately provide to the other party written notice thereof so that the other party may seek a protective order or other appropriate remedy or waive compliance by the other party with this article in whole or in part; (ii) furnish only that portion of the Confidential Information that is legally required; and (iii) exercise best efforts to obtain reasonable assurances that confidential treatment will be accorded to such Confidential Information.
- 13.4 In the event either party becomes aware that Confidential Information received directly or indirectly by the Disclosing Party or any of its directors, officers, employees, representatives, or Subcontractors from the other party has been disclosed or used, or is intended to be disclosed or used, in a manner that would violate the terms of this Agreement, the party with such knowledge shall: (i) immediately notify the other party, providing all details available regarding such violation; (ii) immediately take all commercially reasonable steps to prevent, stop, and rectify such violation; and (iii) keep the the other party fully informed of all steps taken by the party in receipt of such knowledge to prevent, stop, and rectify such violation.
- 13.5 Upon cancellation or termination of this Agreement, each party shall return to the other party all Confidential Information that the parties and their employees, representatives, and Subcontractors have received. Notwithstanding the foregoing, each party may retain one copy of Confidential Information for archival purposes.
- 13.6 The confidentiality and non-use covenants contained in this Agreement will survive for five (5) years following the end of the Term.
- 13.7 Each party acknowledges and agrees that actual or threatened disclosure or use of Confidential Information that does not fully comply with the terms of this Agreement may cause irreparable harm to the other party for which an award of damages alone may not be adequate compensation. Accordingly, each party agrees that the the other party may apply to a court of competent jurisdiction to seek injunctive relief against actual or threatened disclosure or use of



Confidential Information that does not fully comply with the terms of this Agreement. Neither the remedies provided for in this Section nor any action commenced under this Section will preclude any other remedies or relief at Law available to for breach of this Agreement.

14. CHANGES

- 14.1 Change Orders must be in writing in the form provided in Schedule 'E', or such other form as may be requested by the Company, and executed by both Parties before any additions, changes or alterations are made to the Schedules, Scope of Work, or Price.
- 14.2 Revisions to Release Orders must be in writing and executed by the entity that issued the Release Order being revised. The Third-Party Contractor may not make additions, changes, alterations, or omissions, perform extra work or Work until a revised Release Order has been issued by that entity.
- 14.3 All changes to this Agreement not addressed in Section 14.1 or 14.2 will only be binding if they are made by written amendment in the form set out in Schedule 'C', or such other form as may be requested by the Company, and executed by both Parties.

15. DELAYS

- 15.1 After commencement, the Work shall be diligently performed by the Third-Party Contractor until final completion. Any schedule of work by the Third-Party Contractor, including schedule of deliverable dates, will be determined solely by the Department in consultation with the Third-Party Contractor. It is agreed that Company shall be solely responsible for providing access and egress to and from any relevant site to facilitate Third-Party Contractor's performance of the Work. If the Third-Party Contractor is solely responsible for a delay in the performance of the Work, or unreasonably fails to perform any portion of the Work in accordance with the schedule set forth by the Department, in consultation with the Third-Party Contractor and modified pursuant to the Change Order process as needed, the Third-Party Contractor shall take all reasonable acts required to make up the lost time and to avoid delay in the completion of the performance of the Work.
- 15.2 If a delay in the performance of the Work or any part thereof, in the opinion of the Department, is due to: (i) an act or omission of the Company or of other contractors of the Company; (ii) the Company or another contractor of the Company preventing or obstructing the performance of the Work; or (iii) an order being issued by a court, or other public authority having jurisdiction, necessitating a stoppage of the Work (provided that such order was not issued as a result of an act or the fault of the Third-Party Contractor or any Subcontractor or any director, officer, employee or representative of the Third-Party Contractor or Subcontractor); the Company may make a request for suspension of the Work to the Department. If Work is suspended upon decision by the Department, such suspension will continue until the Department gives notice to the Third-Party Contractor to recommence the Work.
- 15.3 If Work is suspended in accordance with Section 15.2, the schedule for the performance of the Work will be extended for a period of time equal to the amount of time that the performance of the Work was suspended. The Price may be adjusted to reimburse the Third-Party Contractor for reasonable direct and documented costs incurred by the Third-Party Contractor as a result of such suspension.

16. FORCE MAJEURE

- 16.1 In the event that either Party is rendered unable, wholly or in part, by Force Majeure to carry out its obligations under this Agreement, other than its obligations to make payments of money due hereunder, such Party shall, within forty-eight (48) hours of such Force Majeure arising, give written notice to the other Party, stating full particulars of such Force Majeure including the obligation that is to be delayed or prevented as a result. The settlement of strikes or lockouts will be entirely within the discretion of the appropriate Party and the requirement that any cause be remedied with reasonable diligence will not require the settlements of strikes or lockouts when such settlement is inadvisable in the opinion of the affected Party.
- 16.2 The obligations of the Party giving notice of Force Majeure will be suspended during the event of Force Majeure. No event of Force Majeure affecting the performance of any obligation of either Party will relieve that Party from performance of any other obligation not affected by the event of Force Majeure, and the affected Party shall promptly take all commercially reasonable steps to mitigate the effect of such Force Majeure.
- 16.3 No extra compensation will be payable to the Third-Party Contractor as a result of a suspension of this Agreement, in whole or in part, due to Force Majeure. If the Third-Party Contractor gives notice of Force Majeure and the Third-Party Contractor's performance is suspended pursuant to this article, the Company will have the right, but not the obligation, to request that the Department select a different entity to provide replacement services for the performance of the Work affected by such suspension (with a corresponding reduction to the Scope of Work and any related



Release Orders and the amounts payable thereunder). The Third-Party Contractor agrees to provide to the Department and the Company the assistance and information necessary to procure such replacement services.

- 16.4 The time for completion of the performance of the Work suspended due to an event of Force Majeure will be extended for a period equal to the duration of such Force Majeure event.

17. TERMINATION

- 17.1 Either party may, with the written approval of the Department, terminate this Agreement or any part thereof upon thirty (30) calendar days written notice to the other party. Upon such termination, the Company agrees to pay the sum of the following: (i) all amounts due and not previously paid to the Third-Party Contractor for that part of the Work completed prior to receipt of notice of termination; (ii) all amounts owing for Work requested to be performed after the Third-Party Contractor received the notice of termination; and (iii) reasonable direct costs that are, in the opinion of the Company, resulting from the termination of the Work.
- 17.2 Upon receipt of notice of termination, the Third-Party Contractor shall ensure that no further commitments are made with respect to the terminated Work (unless authorized in writing by the Company), and shall take all reasonable steps necessary to minimize any costs arising from commitments made prior to receipt of such notice.
- 17.3 The Company, with the written approval of the Department, may, by notice to the Third-Party Contractor, immediately terminate this Agreement in whole or in part if:
- the Third-Party Contractor: (i) fails to follow the Company's reasonable instructions; (ii) breaches any provision of this Agreement; (iii) becomes insolvent, bankrupt, takes the benefit of any insolvency or bankruptcy Law, enters into a plan of arrangement for the benefit of its creditors, or makes a general assignment for the benefit of creditors; (iv) fails to follow the Law or the Rules and Guidelines; or (v) is responsible for any theft or misappropriation of the property of the Company;
 - any manager, supervisor, or other person who is responsible for the supervision of the performance of the Work on behalf of the Third-Party Contractor, is charged with an indictable offence under Law; or
 - any director or officer of the Third-Party Contractor is charged with an indictable offence under Law.
- 17.4 If this Agreement is terminated under Section 17.3, the Company shall pay the Third-Party Contractor for all Work performed to the date of termination, less the sum of any monies already paid to the Third-Party Contractor. Upon payment for such Work, the Company will be relieved of any further obligations relating to such termination.
- 17.5 Upon termination of this Agreement in whole or in part, the Company will not incur any further liability to the Third-Party Contractor or the Third-Party Contractor's directors, officers, employees, representatives, or Subcontractors with respect to such terminated portion of the Agreement. In addition, the Company shall maintain all rights under this Agreement and Law.
- 17.6 The Third-Party Contractor shall submit a detailed account of all reimburseable costs incurred with every request for payment arising out of or as a result of termination pursuant to this article.
- 17.7 Upon termination of this Agreement, all Company-furnished material in the Third-Party Contractor's possession must be returned to the Company on the effective date of termination or, if the Company stipulates certain Work to be completed in the termination notice, on the date of completion of such Work.
- 17.8 Third-Party Contractor, with the written approval of the Department, may, by notice to the Company, immediately terminate this Agreement in whole or in part if:
- the Company: (i) fails to follow the Department's reasonable instructions regarding Section 12.2; (ii) breaches any provision of this Agreement; (iii) becomes insolvent, bankrupt, takes the benefit of any insolvency or bankruptcy Law, enters into a plan of arrangement for the benefit of its creditors, or makes a general assignment for the benefit of creditors; (iv) fails to follow the Law or the Rules and Guidelines; or (v) is responsible for any theft or misappropriation of the property of the, (vi) failure to make payment for Work pursuant to this Agreement;
 - any manager, supervisor, or other person who is responsible for the supervision of the performance of the Work on behalf of the Company is charged with an indictable offence under Law; or
 - any director or officer of the Company is charged with an indictable offence under Law.
- 17.9 Third-Party Contractor reserves the right to either terminate pursuant to 17.8(a) above, or to suspend performance of the Work until receipt of payment for Work invoiced.



18. INSURANCE

- 18.1 Unless otherwise agreed to in writing by the Company, the Third-Party Contractor shall place and keep in force at its own cost during the Term (and if requested, provide evidence of the same in a form satisfactory to the Company), with insurance companies acceptable to the Company, the following policies and insurance:
- a. commercial general liability insurance with a combined single limit of \$1,000,000.00 for each occurrence or accident providing coverage for damages resulting from bodily injury (including death) at any time sustained by any person or persons or resulting from injury to or destruction of property caused by an occurrence arising out of the performance of this Agreement including coverage for contractual liability, products/completed operations liability, premises, and operations liability, , cross liability and tortious liability. Such insurance must stay in full force and effect for the warranty periods specified in article 21;
 - b. Third-Party Contractor's Pollution Liability insurance with a minimum limit of \$1,000,000;
 - c. automobile liability insurance for the Third-Party Contractor's owned, non-owned, and leased automobiles, with minimum limits of \$1,000,000.00 per each occurrence;
 - d. excess liability insurance with minimum limits of \$1,000,000.00 per occurrence. This insurance shall provide coverage in excess of the underlying primary liability limits, terms, and conditions for each category of liability insurance in the foregoing subsections 18.1(a) and 18.1 (b) and the following subsection 18.1(d); specifically employer's liability;
 - e. workers' compensation insurance or its equivalent, including occupational disease coverage, as required by Law for all employees,; and employer's liability insurance (including occupational disease coverage) in the amount of \$1,000,000.00 per accident. Such insurance shall provide coverage in the location in which the Work is performed and the location in which Third-Party Contractor is domiciled. Third-Party Contractor expressly agrees to comply with all provisions of the Law related to workers' compensation of the state or country wherein Work is being performed. If there is an exposure of injury or illness under the U. S. Longshore and Harbor Workers Act, the Jones Act, or under U.S. or foreign laws, regulations or statutes applicable to maritime employees, coverage shall be included for such injuries or claims and shall have a territorial extension for the area in which the Work is performed. Such coverage shall include Maritime Employer's Liability (MEL) insurance endorsed to include coverage for the obligation to provide maintenanceand cure voluntary compensation, borrowed servant, and *In Rem*; in all cases where Third-Party Contractor's employees (defined to include Third-Party Contractor's direct, borrowed, special, or statutory employees) are covered by the Louisiana Workers' Compensation Act, La. R.S. 23:1021 et seq., Company and Third-Party Contractor agree that all Work and operations performed by Third-Party Contractor and its employees pursuant to this Agreement are an integral part of and are essential to the ability of Company to generate Company's goods, products and services for purposes of La. R.S. 23:1061 (A) (1). Furthermore, Company and Third-Party Contractor agree that Company is the principal or statutory employer of Third-Party Contractor's employees for purposes of La. R.S. 23:1061 (A) (3). Irrespective of Company's status as the statutory employer or special employer (as defined in La. R.S. 23:1031 (C)) of Third-Party Contractor's employees, Third-Party Contractor shall remain primarily responsible for the payment of Louisiana Worker's Compensation benefits to its employees, and shall not be entitled to seek contribution for any such payments from Company;
 - f. If watercraft is required as part of the Work, the following coverages are required by Third Party Contractor's subcontractor: (1) Hull and Machinery insurance including collision liability with limits of liability at least equal to the full value of all vessels used in performance of the Work, (2) Protection and Indemnity Insurance to be evidenced through a full entry with a P&I Club or alternatively P&I coverage should be evidence on the SP-23 form or its equivalent including tower's liability with minimum limits of liability of \$1,000,000.00, and (3)Contractor's Pollution Liability Insurance with a minimum limit of \$1,000,000.00;
 - g. if aircraft or helicopter is required as part of the Work, Aircraft Liability Insurance with a minimum limit of \$10,000,000.00 per occurrence for bodily injury and property damage including passengers and crew; professional liability insurance is required by Third Party Contractor's subcontractor if this agreement requires the independent rendering or independent implementation of any professional service with a minimum limit of \$1,000,000.00 per occurrence with a \$2,000,000.00 aggregate and
 - h. any additional or other insurance that may be required from time to time by Law or that the Company may deem necessary.
- 18.2 All deductibles for insurance policies placed by the Third-Party Contractor pursuant to this Agreement will be to the Third-Party Contractor's account.



- 18.3 The Third-Party Contractor shall ensure that its (i) commercial general liability insurance, (ii) pollution liability insurance, (iii) automobile liability insurance, (iv) excess liability insurance, includes the Company as an additional insured with respect to the obligations assumed by the Third-Party Contractor pursuant to this Agreement.
- 18.4 Within fourteen (14) days of the execution of this Agreement or prior to the commencement of the Work, whichever is earlier, the Third-Party Contractor shall provide the Company with certificates of insurance coverage for all policies required to be placed and maintained by the Third-Party Contractor pursuant to the provisions of this Agreement.
- 18.5 Third-Party Contractor shall not allow any coverage required herein to be cancelled or to expire without first having conforming replacement coverage in effect. Failure to comply with the foregoing will constitute a material breach of this Agreement. Neither the providing of insurance by the Third-Party Contractor in accordance with the requirements of this Agreement nor the insolvency, bankruptcy, or failure of any insurance company to pay any Claim accruing, will be held to waive any of the provisions of this Agreement with respect to the liability or indemnity obligations of the Third-Party Contractor, or otherwise.
- 18.6 Except professional liability insurance, the policies of insurance required to be maintained by the Third-Party Contractor pursuant to this Agreement must be primary to any policies of insurance that are maintained by the Company with respect to the obligations of the Third-Party Contractor pursuant to this Agreement.
- 18.7 Except professional liability insurance, all insurance policies required to be maintained by the Third-Party Contractor shall be endorsed to provide a waiver of subrogation in favour of the Company.

19. NOTICES

- 19.1 Notices issued pursuant to this Master Agreement must be in writing and sent by prepaid registered mail, facsimile, or courier to the other Party's Representative at the address noted below. Notices are effective upon receipt, and in any event a notice will be deemed received three (3) days following its mailing or courier date or, if sent by facsimile, on the first business day following the date of transmission.

To the Company:

TransCanada Keystone Pipeline, LP,
a limited partnership formed under the laws of Delaware
by its agent, TC Oil Pipeline Operations Inc.
450 – 1 Street S.W.
Calgary, Alberta, Canada
Attention: Jim White
Telephone:
Facsimile:

To the Third-Party Contractor:

Environmental Resources Management, Inc.
Steven Koster

With a Copy To:

206 E. 9th Street
Suite 1700
Austin, TX 78701-2518
Attention: Law Department

Either Party may change its address, telephone number, or facsimile number for notices by giving written notice of such change to the other Party.

20. REPRESENTATIVES

- 20.1 The Company Representative is Sandra Barnett, or such other individual as may be named by the Company from time to time. The Company Representative has the authority to give any notices, approvals, and directions that may be given by the Company pursuant to this Agreement. All communications to or with the Company Representative will be deemed to be communications to or with the Company.



20.2 The Third-Party Contractor Representative is Steve Koster. The Third-Party Contractor may not change its Representative without the prior approval of the Company. The Third-Party Contractor Representative has the authority to give any notices, approvals, and directions that may be given by the Third-Party Contractor pursuant to this Agreement and to bind the Third-Party Contractor on all matters relating to the Work and this Agreement, subject to supervision of the Department consistent with paragraph 6.1. All communications to or with the Third-Party Contractor Representative will be deemed to be communications to or with the Third-Party Contractor.

21. REPRESENTATIONS AND WARRANTIES

- 21.1 Each Party represents and warrants to the other, as of the Effective Date and on each date that such Party enters into a Release Order, that: (i) such Party is duly organized or formed, validly subsisting, and in good standing under the Laws of the jurisdiction of its organization or formation; (ii) such Party has the power and is authorized to enter into this Agreement and each Release Order to which it is a party; and (iii) by entering into this Agreement and any Release Order, such Party is not breaching any other agreement that such Party has entered into.
- 21.2 The Third-Party Contractor represents and warrants that, as of the Effective Date and at each date a Release Order forms part of this Agreement:
- a. the Work will be in accordance with the terms and conditions of this Agreement;
 - b. the Third-Party Contractor will reasonably abide by the Rules and Guidelines, and confirms that with respect to the code of business ethics, Rules and Guidelines (i) the Third-Party Contractor will adhere to the Company's code of business ethics, or (ii) the Third-Party Contractor's code of business ethics meets or exceeds that of the Company;
 - c. the Third-Party Contractor has the right to use, distribute, and/or modify any thing the Third-Party Contractor uses to perform the Work;
 - d. any service provided as part of the Work that involves the licensing, provision, or development of an application, code, or software (collectively, "**Software**") will conform to the specifications set out in the Scope of Work and Release Order, and ERM's proposal as relevant;
 - e. the Third-Party Contractor has the right to deal with all things included in the Work in the manner contemplated under this Agreement and to grant all rights specified in this Agreement;
 - f. the Third-Party Contractor will supply a sufficient number of people to enable timely and proper execution and completion of the Work;
 - g. all of the people performing Work, including people performing Work on behalf of a Subcontractor, have the skills and experience necessary to perform Work, and are qualified by education, training, experience, certification, and licensing, as applicable, and in all other respects are capable of carrying out the tasks to which each is assigned; and
 - h. the Work will be performed in a degree of care and skill ordinarily exercised under similar circumstances at the same time by experienced professionals performing substantially similar services at the same or similar locality as the site, professional, efficient, prompt, economical, skilful and good workmanlike manner, in accordance with the methods, standards, practice and diligence employed by leading companies in the field or industry to which the Work relates.
- 21.3 The Company represents and warrants that, as of the Effective Date and at each date a Release Order forms part of this Agreement:
- a. It will comply with the terms of this Agreement;
 - b. It shall provide to Third-Party Contractor all information necessary for Third-Party Contractor to complete the Work contemplated hereunder and Third-Party Contractor may rely upon the completeness and accuracy of the information provided by Company.
- 21.4 If, during the Term, the Software does not function in accordance with subsection 21.2(d), the Contractor will repair or replace the Software with a service that is at least functionally equivalent.

22. LIABILITY AND INDEMNITY

- 22.1 Each Party is liable to, and shall indemnify and hold harmless the other Party and the other Party's directors, officers, employees, and representatives from and against all Claims to the extent that such Claims arise out of or are attributable to: (i) any negligent act or omission, willful misconduct, or breach of this Agreement by the indemnifying Party or its directors, officers, employees, representatives, contractors, subcontractors, or Subcontractors, and the costs thereof, including, without limitation, all legal expenses, except to the extent such Claims are caused by the



negligence, or willful misconduct by the other Party; and (ii) any taxes and third party obligations payable by the indemnifying Party as a result of this Agreement, or for any related contributions and penalties imposed on the other Party by any governmental or other authority having jurisdiction.

- 22.2 If any of the Work constitutes or is alleged to constitute an infringement of any intellectual property, the Third-Party Contractor shall, in addition to its other obligations under this Agreement, at its own expense and as directed by the Department and the Company, either procure the right to continue using such Work without liability for such infringement, or modify or replace such Work with non-infringing Work that is at least functionally and operationally equivalent to the Work that infringes or is alleged to infringe the intellectual property rights of a third party.
- 22.3 If requested by the indemnified Party, the indemnifying Party shall, at its sole expense, defend all Claims and pay all incidental costs and expenses of defending such Claims. The indemnified Party maintains the right, at its option, to participate or have its insurer participate in the defense of any such Claims, and, in such event, the indemnifying Party must pay the reasonable costs of the indemnified Party and the indemnified Party's insurer to participate in such defense. If the indemnified Party does not request the indemnifying Party to defend such Claims, the indemnifying Party shall nevertheless indemnify and hold harmless the indemnified Party from and against all costs of defending such Claims, including experts' fees, court costs, and legal fees, whether incurred through settlement or otherwise.
- 22.4 **NOTWITHSTANDING ANYTHING ELSE IN THIS AGREEMENT, NEITHER PARTY WILL BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES ARISING OUT OF OR RELATING TO THIS AGREEMENT, WHETHER OR NOT SUCH LOSS OR DAMAGE IS BASED ON TORT, STRICT LIABILITY, OR BREACH OF CONTRACT, EXCEPT: (I) TO THE EXTENT SUCH LOSS OR DAMAGE ARISES FROM SUCH PARTY'S GROSS NEGLIGENCE, WILLFUL MISCONDUCT, FRAUD OR BREACH OF THE CONFIDENTIALITY PROVISIONS CONTAINED HEREIN. IN NO EVENT WILL THIRD-PARTY CONTRACTOR BE LIABLE TO COMPANY OR ANYONE CLAIMING BY, THROUGH OR UNDER IT, INCLUDING WITHOUT LIMITATION, INSURERS, FOR ANY AMOUNT IN EXCESS OF US IN THE AGGREGATE. TO THE MAXIMUM EXTENT PERMITTED BY LAW, THIRD-PARTY CONTRACTOR WILL HAVE NO LIABILITY IF COMPANY FAILS TO INITIATE LEGAL PROCEEDINGS WITHIN OF PERFORMANCE OF THE SERVICES.**

23. DISPUTE RESOLUTION

- 23.1 The Parties shall make all reasonable efforts to resolve any disputes arising out of the performance of the Work by amicable negotiations and agree to provide without prejudice, frank, candid, and timely disclosure of relevant facts, information, and documents to facilitate these discussions.
- 23.2 In the event that a dispute arises which cannot be settled by the contents of this Agreement or by mutual agreement, then either Party has the right to give notice to the other Party requesting the appointment of a mediator ("Project Mediator"). The Parties have thirty (30) days from the receipt of such notice to agree on a Project Mediator. If the Parties do not agree on the appointment of a Project Mediator, then either Party may request the American Arbitration Association, pursuant to its Commercial Rules and Procedures, or any similar body acceptable to the Parties, in the state where the Work Site is located (or such other state as the Parties may agree upon) to appoint a chartered mediator to act as Project Mediator, who, when so appointed, will be deemed acceptable to the Parties and to have been appointed by them. In the event such Project Mediator is unavailable to mediate a particular dispute, then the American Arbitration Association, pursuant to its Commercial Rules and Procedures, or any similar body acceptable to the Parties may be asked to appoint a suitable replacement.
- 23.3 The Parties will submit their dispute in writing to the Project Mediator, and afford to the Project Mediator access to all records, documents and information related to the dispute that the Project Mediator may request; provided however, no Party will be required to provide anything that would be protected by privilege, including but not limited to attorney-client communications, work product, and litigation privilege, and any comparable privilege in any court or other adjudicatory body. The Parties shall meet with the Project Mediator at such reasonable times as the Project Mediator may require and shall, throughout the intervention of the Project Mediator, negotiate in good faith to resolve the dispute. All proceedings are agreed to be without prejudice, and the cost of the Project Mediator will be shared equally between the Parties.
- 23.4 If the dispute cannot be resolved within fourteen (14) days of the Project Mediator being requested to assist, or within such further period agreed to by the Parties, the Project Mediator may terminate the negotiations by giving notice to the Parties. However, the Project Mediator may declare an impasse and terminate the negotiations at any time during the mediation period, at which time each Party will have recourse to its rights and remedies in Law.
- 23.5 The Department shall not be subject to the provisions set forth in this section.



24. OWNERSHIP

- 24.1 All original drawings, plans, specifications, calculations, sketches, designs, reports, files (electronic or otherwise), records and other documents regardless of the media or means of storage and access thereto ("Records") developed by, through or for the Third-Party Contractor pursuant to this Contract or any Change Order shall be the absolute property of the Department. The Company shall be entitled to duplicates of all such Records if approved by the Department. The Records shall be delivered to the Department upon completion of the Work or at any time during performance of the Work at the request of the Department. The Third-Party Contractor may use the Records related to its services expended on behalf of the Company related to the Work for its general reference and enhancement of its Work, but shall not market or sell the Records without the prior written consent of the Department and the Company.
- 24.2 Notwithstanding Section 24.1, the provisions of this article will not apply to the extent that any Intellectual Property was developed or owned by the Third-Party Contractor prior to the commencement of the performance of the Work ("Pre-existing IP").
- 24.3 The Third-Party Contractor grants to the Company a fully paid-up, non-exclusive, irrevocable, and transferable right and license: (i) to use all or any portion of the Pre-existing IP that is necessary for the Work; and (ii) for all or such portion of the Pre-existing IP that has been incorporated into the Work.

25. INTERPRETATION

- 25.1 Unless the context requires otherwise, in this Agreement words in the singular include the plural and words in the plural include the singular.
- 25.2 The headings used in this Agreement are for convenience and ease of reference only and in no way define, limit, describe, or interpret the scope or intent of this Agreement or any of its provisions.
- 25.3 All legislation cited in this Agreement includes: (i) all amendments and revisions to the cited legislation; and (ii) any statute passed in substitution for the cited legislation.
- 25.4 When a form is prescribed by or under this Agreement, deviations from such form will not invalidate the form used so long as the substance of the content of the form is not negatively affected.
- 25.5 If any provision of this Agreement is determined to be invalid or unenforceable in whole or in part, such invalidity or unenforceability will apply only to that provision and all other provisions of this Agreement will continue in full force.
- 25.6 If there is a conflict, inconsistency, or ambiguity between or among the provisions of any document forming part of this Agreement, the document containing the more specific wording will take precedence solely to the extent of such conflict, inconsistency, or ambiguity.
- 25.7 Each Party has had the opportunity to participate fully in the review and revision of this Agreement. Any rule of construction requiring that ambiguities be resolved against the drafting Party will not apply in interpreting this Agreement. The language in this Agreement will be interpreted as to its fair meaning and not strictly for or against either Party.
- 25.8 All of the documents listed in Section 2.1(b) attach to and form part of this Master Agreement.

26. LAW

- 26.1 The law applicable in the State of Texas governs this Agreement and any actions initiated by either Party, including, without limitation, the Uniform Commercial Code as in effect, without giving effect to any choice or conflict of law rules or provisions thereof that may direct the application of the law or rules of another jurisdiction.
- 26.2 The Parties irrevocably consent to the exclusive jurisdiction of the courts of the State of Texas located in Harris County or the United States District Court for the Southern District of Texas in Houston, Texas for any Claim arising out of or related to this Agreement and irrevocably waive, to the fullest extent permitted by Law, any assertion of inconvenient or inappropriate forum or other objection respecting conflict of laws.
- 26.3 The Third-Party Contractor shall obey the Law at all times when performing the Work and, without limiting the generality of the foregoing, shall reasonably comply with all Rules and Guidelines. The Third-Party Contractor shall also ensure that the Third-Party Contractor's directors, officers, employees, representatives, and Subcontractors are familiar with and comply with all Laws and all Rules and Guidelines that are applicable to the Work.
- 26.4 The application of the United Nations Convention on Contracts for the International Sale of Goods to this Agreement is expressly excluded.



27. SURVIVAL OF RIGHTS AND OBLIGATIONS

27.1 The following articles will survive the termination of this Agreement:

- a. article 5 - Payment and Taxes;
- b. article 11 - Audit Access;
- c. article 12 - Publicity;
- d. article 13 - Confidentiality;
- e. article 17 - Termination;
- f. article 18 - Insurance;
- g. article 21 - Representations and Warranties;
- h. article 22 - Liability and Indemnity;
- i. article 23 - Dispute Resolution;
- j. article 24 - Ownership; Intellectual Property;
- k. article 26 - Law;
- l. article 28 - Waiver; and
- m. article 31 - Entire Agreement.

28. WAIVER

- 28.1 The failure of either Party to enforce any provision of this Agreement does not constitute a waiver and does not affect the right of either Party to enforce such provision at a later date. Waiver by either Party of any provision or breach of any provision, in any one instance, is not deemed to be a further or continuing waiver of such provision or breach of any provision or a waiver of any other provision or breach.
- 28.2 The failure of the Company to insist upon strict performance by the Third-Party Contractor of any of the terms and conditions of this Agreement will not be deemed a waiver of any rights or remedies that the Company may have at Law in respect thereof, and will not be deemed a waiver of any subsequent default by the Third-Party Contractor.
- 28.3 Payment or acceptance of Work by the Company will not constitute a waiver with respect to any provisions of this Agreement, nor will anything herein contained be construed to limit any warranties or conditions provided or implied by Law.

29. TIME

- 29.1 The parties acknowledge that the Proposal currently includes a time schedule for the performance of the work which was developed based on the information provided in the Department's Request for Proposal. The parties commit to work in an expedient manner and recognize that project schedules may need to be adjusted during the course of the work.

30. INUREMENT

- 30.1 This Agreement inures to the benefit of and is binding upon the Parties together with the successors and assigns of the Company and the successors and permitted assigns of the Third-Party Contractor.
- 30.2 The Department is a third-party beneficiary of this Agreement consistent with the terms of this Agreement. No person except the Department shall be deemed a third-party beneficiary of any provision of this Agreement.

31. ENTIRE AGREEMENT

- 31.1 This Agreement sets forth the entire agreement between the Parties pertaining to the subject matter of this Agreement and supersedes any previous discussions, negotiations, and agreements, whether written or verbal, pertaining to such subject matter.

32. EXECUTION

- 32.1 This Master Agreement, any Release Order and any Change Order may be executed in counterparts without the necessity that both Parties execute the same counterpart, each of which will be deemed an original but which together will constitute one and the same agreement. The exchange of copies of this Master Agreement, any Release Order



and any Change Order by facsimile will constitute effective execution and delivery thereof and may be used in lieu of the original for all purposes. Signatures of representatives of the Parties transmitted by facsimile will be deemed to be original signatures for all purposes.

[Signature page to follow]



IN WITNESS WHEREOF the Parties have executed this Master Agreement effective as of the Effective Date.

TransCanada Keystone Pipeline, LP,
a limited partnership formed under the laws of Delaware
by its agent, TC Oil Pipeline Operations

By:

Name: Andrea Talbert

Title: Authorized Signatory

By: _____

Name: _____

Title: _____

Environmental Resources Management, Inc.

By:

Name: Michael O'Shaughnessy

Title: CEO, Environmental Resources Management, Inc.

By: _____

Name: _____

Title: _____

	SCM	REVIEWER	CLIENT	LEGAL	I. RISK	QUALITY	TAX
Initial			<i>see attached</i>				-
Name	S. Richardson	B. Weber	J.P. White	S. Onock	P. Rix	S. Forsyth	N/R



SCHEDULE "A"- SCOPE OF WORK

This schedule (Schedule "A") attaches to and forms part of Services Agreement No. 10387 between Company and Contractor.

Exhibit "A-1"	Project Background and Scope of Services
Exhibit "A-2"	Project Map
Exhibit "A-3"	Contractor's Technical Proposal



SCHEDULE "A" – EXHIBIT "A-1" - PROJECT BACKGROUND AND SCOPE OF SERVICES

This schedule (Schedule "A" – Exhibit "A-1") attaches to and forms part of Services Agreement No. 10387 between Company and Contractor.

1.0 BACKGROUND, OVERVIEW AND SCOPE OF WORK

1.1 Background

TransCanada Keystone Pipeline, LP (TransCanada) a subsidiary of, TransCanada PipeLines Limited, is developing a pipeline project to transport crude oil from the Western Canadian Sedimentary Basin (WCSB) and the Williston Basin in Montana and North Dakota, to a point located on the existing Keystone Pipeline system at Steele City, Nebraska, which will allow for the delivery of that production to existing refinery markets in the Texas Gulf Coast area. This project is known as the Keystone XL Project (hereinafter called the "Project" or "Keystone XL"). In the U.S., the Project involves the construction of a new crude oil pipeline and related facilities, including pumping stations, across Montana, South Dakota, and Nebraska. Pump stations and additional pumping capacity will also be added in Kansas along the Cushing Extension segment of the Keystone Pipeline. The project is more specifically described in Section 1.2.

The Department of State (Department) solicited proposals for the preparation of a Supplemental Environmental Impact Statement (SEIS) and related documents and services for the proposed Project. The SEIS will supplement the Final Environmental Impact Statement (FEIS) issued by the Department on August 26, 2011 for the original Keystone XL pipeline project. The SEIS will be prepared under this third-party contractual agreement paid for by TransCanada and supervised and controlled by the Department, with TransCanada being the Applicant. The Department will act as the lead Federal agency for preparing the SEIS consistent with the National Environmental Policy Act (NEPA). The Department will be responsible for providing supervisory and technical direction to the Third-Party Contractor. This contract has been executed pursuant to third-party contracting procedures consistent with 40 CFR 1506.5(c) and the Department's Interim Guidance for the Use of Third Party Contractors in the Preparation of Environmental Documents (Interim Guidance).

The Department solicited proposals through an RFP for a Third-Party Contractor to provide the services described in sections 1.3. The technical and cost proposals were reviewed and evaluated by the Department. The Department made the final selection of the Third-Party Contractor, based on its review of the technical, cost, managerial, personnel, and Organizational Conflict of Interest (OCI) aspects of each proposal. Upon selection of the Third-Party Contractor by the Department, TransCanada finalized a contract with and fund the successful contractor for the preparation of an SEIS and attendant activities.

With the selection of this Third-Party Contractor, the Department will supervise and direct the activities of the contractor in the consultation, review, preparation and processing of documents within the scope identified herein. TransCanada will not have control over, nor direct the activities of the contractor.

TransCanada submitted an application for a Presidential Permit for the original Keystone XL Pipeline Project on September 19, 2008. The Department reviewed that application and issued a FEIS on August 26, 2011. On January 18, 2012, a determination was made that the project – as presented and analyzed at that time – did not serve the national interest. TransCanada submitted a new application for a Presidential Permit for the current Keystone XL Pipeline Project on May 4, 2012.

The Project as included in TransCanada's current application follows the route from the Canadian border across Montana and South Dakota that was studied in the FEIS. TransCanada has incorporated by reference the FEIS prepared by the Department for the original proposed Keystone XL Project. The FEIS was developed by the Department over the course of three years with input from the public and the participation of numerous affected agencies.

On April 17, 2012, the Governor of Nebraska signed into law a statute authorizing the Nebraska Department of Environmental Quality (NDEQ) to review alternative routing in that State, including collaboration with a federal agency. TransCanada submitted an initial alternative routing report to the NDEQ on April 18, 2012. TransCanada expects the Nebraska alternative route selection process to be complete later this year. TransCanada will supplement its application to the Department with the revised routing in Nebraska as soon



as the Nebraska alternative route selection process is complete. TransCanada will provide any information necessary to update the FEIS during the course of the Nebraska alternative route review. Although there will be a new route through a portion of Nebraska that avoids the Sandhills region, the remainder of the Nebraska route will utilize the routing already studied.

1.2 The Project

As noted, the proposed Project is an international project designed to transport Canadian oil from the WCSB, and domestic U.S. crude oil production from the Williston Basin in Montana and North Dakota, to refinery markets in the Gulf Coast region. Specifically, TransCanada proposes to construct and operate a crude oil pipeline and related facilities from an oil supply hub near Hardisty, Alberta, Canada to the northernmost point of the existing Keystone Pipeline Cushing Extension at Steele City, Nebraska, which will provide access to existing refinery markets in the Texas Gulf Coast area.

Subject to the requirements and descriptions, the selected Third-Party Contractor will work under the direction of the Department to perform the following tasks:

- Review and comment on the adequacy of data contained in the FEIS for the Keystone XL Project dated August 26, 2011 insofar as relevant to the new Keystone XL Steele City Application. Request additional data where needed for the development of an environmental document consistent with NEPA and NHPA. This review will include, but not be limited to, the following items:
 - maps and alignment sheets;
 - work consistent with the Endangered Species Act, including field surveys, determination of potentially impacted species, and consultations with the U.S. Fish and Wildlife Service;
 - work consistent with the National Historic Preservation Act, including field surveys, consultations, and review of the previously prepared Programmatic Agreement;
 - work required to comply with BLM requirements for Minerals Leasing Act and Federal Land Policy Management Act;
 - work required to comply with the Montana Major Facilities Siting Act (MFSA) may be required; and
 - work (including field surveys) required to delineate waters of the U.S. and wetlands that will be subject to Federal permitting requirements.
- Identify data or analysis that may need to be updated because of significant new circumstances or information relevant to environmental concerns bearing on the proposed action or its impacts.
- Identify data needs not included in the Final EIS relevant to a new route or new regulations, studies, or other circumstances not available for consideration in the FEIS. Work with the Department to identify most advantageous way of obtaining data.
- Review and comment on field surveys conducted by TransCanada's environmental consultant and NDEQ's environmental consultant in Nebraska, to include:
 - review information that will be the basis of the new environmental document and
 - recommendation of alternatives, as appropriate, to avoid or minimize major environmental/cultural concerns.
- Verify, supplement as appropriate, update, and maintain mailing lists.
- Coordinate with the Department and if necessary host and maintain the Department's project website.
- Create a web-based administrative record inventory and create, house, and store the administrative record on the Keystone XL application.
- Review and/or prepare any Notice(s) of Public Scoping Meetings. Finalize and assist the Department in issuing these Notices in print, by mail, and in media releases.
- Coordinate and attend meetings and site visits, as required by the Department and other regulatory agencies.



- Work with the Department to identify and summarize concerns of affected/adjacent landowners, landowner organizations, environmental groups, other interested stakeholders, and Federal, State, and local agencies.
- Communicate with and assess information from those concerned parties and advise the Department regarding the collection of additional data, suggested alternative routes, and/or mitigation to respond to these concerns.
- Coordinate and assist (as necessary) with any new Section 7 Endangered Species Act consultations.
- Coordinate and assist in Section 106 National Historic Preservation Act consultations (including drafting of a new Programmatic Agreement if required), and any other consultations consistent with relevant laws.
- Prepare and submit a Preliminary Draft SEIS consistent with NEPA and NHPA and other relevant laws to the Department for review and comment.
- Incorporate comments from the Department into the Preliminary Draft SEIS.
- Prepare and submit a Draft SEIS to the Department. Prepare, print and mail public and Agency copies including copies to identified libraries and other stakeholders (assume 250 copies).
- Coordinate, as needed, public comment on draft SEIS, including drafting a notice of availability of environmental documents, and helping the Department arrange public comment meetings, as appropriate.
- Assist the Department in preparing any responses to public and Agency comments on the SEIS to include creating web-based tracking of all comments.
- Prepare, print, and submit a revised Final SEIS to the Department. Prepare, print, and mail public and Agency copies (assume 250 copies).
- Draft the notice of Public Availability of the Final SEIS and assist the Department in issuing that notice to include mailings and media releases.
- If required, assist the Department in preparing certain sections of a Record of Decision (ROD).

1.3 Scope of Work

The selected third-party contractor is responsible for working with the Department and the various stakeholders. Under the Department's direction, and consistent with the Department's Interim Guidance the Third-Party Contractor may coordinate with TransCanada as necessary. The selected Third-Party Contractor will keep the Department apprised of issues as they arise, and when the Department determines it is appropriate, participate in meetings to identify and help resolve issues.

The Third-Party Contractor will also be responsible for assisting the Department in conducting the NEPA review, preparing SEIS, and completing related work within an agreed-upon schedule and approved budget. It will be the contractor's responsibility to notify the Department and TransCanada if the work effort required by the Department exceeds the work effort on which the bid was based, or the approved budget.

The Third-Party Contractor will be responsible for providing the following services:

- 1.3.1 Preparation, printing and reproduction of all project-related documents, reports, and notices required by the Department. In addition to paper copies, all materials must be provided to the Department in electronic form in Microsoft Word and Acrobat PDF format. TransCanada will provide any required databases (such as mailing lists). A camera-ready SEIS will be provided as PDF files in addition to hard copy. Note that all printing and mass mailings will be completed by the contractor.



- 1.3.2 The Third-Party Contractor may be responsible for preparing draft notices and presentation materials for public meetings and for reviewing and finalizing these materials with the Department for their issuance and use. The selected Third-Party Contractor will also set-up and coordinate (as required) public meetings, including arrangement for and payment of a court stenographer. This task will require close coordination with the Department. Required work will include arranging for meeting places, placing notices or announcements in the appropriate news media (local newspapers, radio stations, etc.), making mailings to stakeholders to include each landowner. The selected contractor will prepare a summary of agency scoping comments/issues for subsequent agency review and concurrence, as well as summarizing written public comments received during the scoping process. The comments will be posted on the Agency's web-site.
- 1.3.3 Maintenance of a computerized (sortable database) mailing list of all interested agencies, officials, members of Congress, community/environmental groups, concerned citizens, affected property owners, and other interested parties. TransCanada will provide the contractor with an initial mailing list, as well as providing updates throughout the NEPA process.
- 1.3.4 Set up and maintain on a daily basis a computerized, web-based administrative record similar to an Electronic Docket system.
- 1.3.5 Set-up and maintain an internet website with the capability to accept public comments, and post public information regarding the project.
- 1.3.6 Characterization of existing environmental conditions, incorporation of issues identified during scoping, assessment of potential environmental effects and significance associated with implementation of the Keystone XL Project, identification of potential route location alternatives (both locally and regionally), and determination of necessary mitigation to avoid and/or reduce impacts to acceptable levels for the environmental topics listed below. Studies shall take into account both direct and indirect effects of project facilities construction, operation and maintenance, upset conditions, and abandonment. Information contained in the application, the subsequent field surveys, the FEIS, and other already available technical data shall be used to the maximum extent practicable. Use of any data not in the public record for the project must be approved by the Department.
- 1.3.7 Preparation of the SEIS consistent with NEPA; the National Historic Preservation Act; Endangered Species Act; other applicable laws and regulations; any additional requirements of the Department; address comments and issues raised during the scoping and/or public meeting processes.
- 1.3.8 TransCanada will be responsible for developing the maps requested by the Department or the Third-Party Contractor. Map scale will range from 1:24,000 to 1:3,600 depending on the complexity/sensitivity of the resources potentially affected and project specifics.
- 1.3.9 Maintain ongoing review of potential environmental issues and assessment of adequacy of overall scope of the environmental analysis. The Department shall be advised immediately of any potential data gaps or analysis shortcomings.
- 1.3.10 May arrange with TransCanada to participate in site inspections with the Department.
- 1.3.11 Prepare camera-ready copies of the SEIS and any required notices for submission to the Department and arrange for printing and mailing. For purposes of proposal preparation, assume that the contractor will print and distribute a minimum of 250 copies of the SEIS to cooperating and consulting agencies and other interested stakeholders. (The actual number of preliminary documents required will be determined based on consideration of cooperating agencies' needs). Please note that mailing to federal agencies must be carried out by Federal Express or equivalent service to avoid irradiation of regular Department mail. CDs or hardcopies of the SEIS may be distributed to appropriate members of Congress.
- 1.3.12 Develop and maintain a formal project management system to allow for weekly tracking of schedule and budget status for the prime contractor and any subcontractor
- 1.3.13 Regular consultation with the Department including travel to Washington, DC to meet as required. Potential consultation with Nebraska DEQ and its contractor. Potential travel to Nebraska, Montana, and South Dakota, as necessary.



1.3.14 Adherence to the schedule is essential. The Department will determine, as appropriate, a specific project schedule with the selected Third-Party Contractor.

1.4 Schedule Milestones for the Project

Subject to Section 29.1 of the Master Services Agreement No. 10387, and Section 1.3.14 above, the Schedule timeline is provided as per Schedule "A" – Exhibit "A-3" – Contractor Technical Proposal (page 35).



SCHEDULE "A" – EXHIBIT "A-2" - PROJECT MAP

This schedule (Schedule "A" – Exhibit "A-2") attaches to and forms part of Services Agreement No. 10387 between Company and Contractor.

Consult the maps presented in the August 26, 2011 FEIS for the Steele City Segment of the prior Keystone XL Project as well as the Nebraska Alternative Routing Report submitted by TransCanada to the Nebraska DEQ.



SCHEDULE "A" – EXHIBIT "A-3" - CONTRACTOR'S TECHNICAL PROPOSAL

This schedule (Schedule "A" – Exhibit "A-3") attaches to and forms part of Services Agreement No. 10387 between Company and Contractor.

Contractor's Technical Proposal attached



ERM Proposal to United States Department of State

Presented to:

Genevieve Walker
NEPA Coordinator
 U.S. State Department
 2201 C Street, NW
 OES / ENV Room 2657
 Washington, DC 20520

WalkerG@state.gov

Technical Proposal
Keystone XL Oil Pipeline Project
Supplemental Environmental Impact Statement
Third-Party Contractor Services
Request for Proposal No. 6152012

June 28, 2012

Environmental Resources Management
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27 June 2012

State Department
2201 C Street, NW
OES / ENV Room 2657
Washington, DC 20520
Attention: Genevieve Walker, NEPA Coordinator



RE: RFP #6152012

Keystone XL Oil Pipeline Project
For U.S. Department of State
Supplemental Environmental Impact Statement
Third-Party Contractor Services

Dear Ms. Walker:

The ERM Team appreciates the importance of your decision in determining which team has the right qualifications to assist you as you move forward with your project. With this proposal, we wish to convey our enthusiasm regarding your upcoming project and our commitment to the highest level of professionalism and quality in achieving your goals.

The ERM Team approach stresses the need for a high-quality, defensible SEIS. We also understand the need for an efficient and expedited process to meet the demands of the desired project schedule, and we offer several suggestions for achieving that end. We recognize the unique challenges of this project and have assembled a highly experienced project team with extensive NEPA and pipeline experience in the Midwest. Finally, and very importantly, we have no business relationship with TransCanada and have no conflict of interest in serving as the independent third-party contractor on this nationally important project.

On behalf of the ERM Team, thank you for your time and consideration, and we look forward to hearing from you. Should you have any questions or require clarification, feel free to call me at

Sincerely,

A handwritten signature in blue ink that reads "Steven Koster". The signature is fluid and cursive, with the first name "Steven" and last name "Koster" clearly legible.

Steven Koster, PE
Senior Associate Partner

Cover Page



ERM Proposal to United States Department of State

United States Department of State

*Bureau of Oceans and International
Environmental and Scientific Affairs
Washington, D.C. 20520*

Keystone XL Oil Pipeline Project
Request for Proposal No. 6152012

Supplemental Environmental Impact Statement
Third-Party Contractor Services

U.S. State Department
2201 C Street, NW
OES / ENV Room 2657
Washington, DC 20520

Attn: Genevieve Walker
NEPA Coordinator
WalkerG@state.gov



ERM Proposal to United States Department of State

Request for Proposal No. 6152012

Keystone XL Oil Pipeline Project
Supplemental Environmental Impact Statement
Third-Party Contractor Services

- 1 Introduction**
- 2 Technical Approach**
- 3 Project Organization and Management Approach**
- 4 Qualifications and Experience**
- 5 Schedule**
- 6 References**
- 7 Conflict of Interest**
 - a) Attachment B1-OCI Representation Statement
 - i. Detailed description of the internal processes undertaken to conduct our internal OCI review
 - b) Attachment C-OCI Ongoing Obligations Certificate
 - c) Attachment D-OCI QUESTIONNAIRE
 - i. OCI Questionnaire Supplement
 - ii. OCI Questionnaire Supplement Figure
 - d) Attachment E-Contractor CII Non-Disclosure Agreement
- 8 Resumes**
- 9 Budget**

1. Introduction

As the independent third-party contractor, ERM will bring extensive U.S. and international experience with petroleum liquids pipelines, NEPA environmental impact assessment, and a strong Midwest presence combined with global expertise to the Keystone XL Pipeline SEIS project.



Environmental Resources Management (ERM) is pleased to submit this proposal to assist the US Department of State (Department) in preparing a third-party Supplemental Environmental Impact Statement (SEIS) under the National Environmental Policy Act (NEPA) for the Keystone XL Pipeline Project (Project).

ERM understands that TransCanada Keystone Pipeline, LP (TransCanada or applicant) has proposed construction of a new pipeline and related facilities to transport crude oil from the Western Canadian Sedimentary Basin to the Texas Gulf Coast. The portion of the project currently under consideration by the Department runs from the Canadian border through Montana, South Dakota, and Nebraska, along with pump stations in Kansas. The international border crossing necessitates a Presidential Permit from the Department. The original Project application, submitted in 2008, was subjected to NEPA review and an FEIS was issued in August 2011. That project was found to not serve the national interest, and TransCanada submitted an application for a revised route in May 2012. That route follows the original corridor in Montana and South Dakota with a significant realignment in Nebraska, avoiding the ecologically sensitive Sand Hills area.

Given the new application, the Department, as the lead federal agency, must prepare a new NEPA assessment of the revised Project. As the revised route follows much of the original route, the 2011 FEIS can and should be incorporated into the assessment. The SEIS will focus on an assessment of the new portion of the pipeline route in Nebraska, along with any new information, regulations, or circumstances associated with environmental concerns regarding the revised Project. In addition, the SEIS process needs to be coordinated and integrated with the Nebraska alternative route selection process, currently underway.

The Department intends to select an independent, third-party contractor to prepare the SEIS. We understand that a contract would be executed between TransCanada and ERM, while Project execution would remain under the supervision of the Department, consistent with consistent with 40 CFR 1506.5(c) and the Department's Interim Guidance for the Use of Third

Party Contractors in the Preparation of Environmental Documents.

We firmly believe that ERM is the most qualified to serve in this role for the Keystone XL Project. ERM is a leading global provider of environmental, health, safety, risk, and social consulting services. We have more than 140 offices in 40 countries and employ around 4,000 people. ERM is committed to providing a service that is consistent, professional, and of the highest quality to create value for our clients. Over the past five years, we have worked for more than 50 percent of the Global Fortune 500, delivering innovative solutions for business and selected government clients, helping them understand and manage increasing sustainability challenges. The oil and gas sector is one of our largest strategic client sectors. ERM also has more than 40 years of experience supporting clients with the management of risks, improving their performance, and providing assurance to internal and external stakeholders. Some of the many benefits that ERM can bring to the Keystone XL SEIS Project include:

- **Extensive NEPA and document preparation experience.** ERM's knowledge of the NEPA process and document preparation is extensive with more than 100 projects, many involving oil and gas pipelines and many for major, highly visible projects. ERM's in-house scientists and engineers have extensive experience with all aspects of the assessment process from Scoping through the Record of Decision. This often includes engineering feasibility and risk analyses; assessment of potential impacts to natural resources, cultural resources, air, water, soil, noise, or other resources; and state-of-the-art modeling for in-depth impact analysis. ERM applies our technical and regulatory expertise to help avoid, minimize and where necessary mitigate potential impacts.
- **World-class staff with local understanding.** Our Project team has extensive Midwest experience, and both our Project Manager and our Deputy Project Manager are based in the Midwest, with members of the Project team located throughout the Midwest and Gulf Coast. This local understanding of Midwestern culture and approach is critical to effective working relationships with regulatory agencies and other stakeholders. Our Project team is part of a global staff of 4,000 specialists representing more than 30 disciplines including engineering, natural and earth sciences, social science, economics, planning, and business management. ERM's staff average more than 10 years' experience, many holding advanced degrees, and are certified within their professional discipline. Our project team has worked with the USACE, USFS,

BLM, USFWS, BIA, and numerous state environmental agencies.

- **Knowledge of pipelines.** We have direct project experience with all aspects of liquid petroleum and natural gas pipeline projects, including route selection and siting, environmental mitigation design, permitting, construction monitoring, and spill response and remediation. We speak the language of pigging, SCADA, alignment sheets, HDD, and High Consequence Areas. Our Project Manager has 25 years of experience in environmental assessments of oil and gas projects, and the senior leaders of our project team combined have over 100 years of relevant experience.
- **Independent third-party capability.** ERM has not worked on the Keystone Pipeline project, and does not work for TransCanada or its subsidiaries or affiliates. We are experienced in serving as the independent third-party contractor on dozens of NEPA projects, including major development projects that are both highly visible and controversial. We understand the importance of providing a neutral, technically sound, procedurally compliant, and defensible EIS for all parties involved in the process.

ERM understands that this RFP differs from many other third party requests for proposal in that the initial FEIS review process for Keystone XL and many FEIS development activities, including initial open houses and a substantial part of the overall scoping effort, have already occurred. ERM will bring a non-biased and balanced perspective to the NEPA compliance process for this Project, building on work already done. To support the Department, we intend to conduct an intensive review of the FEIS efforts to date, including all relevant and available documents, in order to get up to speed on the Project as quickly as possible.

A key role for the third-party contractor selected for this Project is to support the Department effectively within the SEIS process in facilitating ongoing coordination between the Department and cooperating agencies in proactively addressing agency concerns, identifying and resolving any data gaps/valid landowner concerns, and seeking consensus on approaches to eliminate, minimize or mitigate impacts. Optimizing the benefits of SEIS process is key to preparing a timely, comprehensive, and defensible SEIS, one that complies with NEPA and can withstand the scrutiny of other federal, state, local agencies, and the public.

This proposal has been prepared in accordance with the Department's Request for Proposal No. 6152012, Department of State Supplemental Environmental Impact Statement Third-Party Contractor Services, dated June 15, 2012.

2. Technical Approach



ERM recognizes that it is imperative that alternatives be identified and investigated as early as possible in the NEPA process to avoid delays associated with the late identification of reasonable alternatives.

As discussed in our introduction, ERM understands that TransCanada entered into the Department's SEIS process on May 4, 2012, as a result of the application for a Presidential Permit for the current Keystone XL Pipeline Project, and has already completed many of the activities expected under that process. As such, unless otherwise directed by the Department's Staff, ERM's scope during the remainder of the EIS process will be to:

- Review and comment on the adequacy of existing Project data;
- Identify additional data or analysis that may be needed;
- Coordinate the Department's public process through meetings, a Project website, and tracking/addressing public and agency comments and concerns;
- Maintain a web-based administrative record;
- Work with the Department to identify data gaps, review additional data submitted by TransCanada, and coordinate and assist the Department on meeting its NEPA obligations; and
- Prepare, coordinate, and assist the Department in submitting a Final SEIS.

Based on a preliminary review of the public material available from the Department's Project website for the Keystone XL Project, we are confident that our team will be able to review and evaluate the available information, identify and address potential data needs for Department staff, and produce a draft SEIS for submittal to the Department for its proposed deadline. The draft SEIS will be prepared in accordance with the requirements of NEPA. ERM proposes the following scope of activities to provide the necessary SEIS Third-Party environmental support and NEPA Document services for the proposed Project.

2.1 Consultation with the Department

Upon award of the contract, ERM will meet with Department staff as quickly as possible to initiate the third party process for this Project. During the Project kickoff meeting, key members of the ERM team will meet with the appropriate staff from the Department to discuss specific expectations of the staff, identify issues that require resolution, and develop a plan of coordination during the preparation and review of the SEIS. The ERM team will answer any questions the Department may have regarding completion of the SEIS. We would hope at that time to also agree on the process that will allow very close coordination between our respective staffs, allowing delivery of an SEIS that exactly meets the requirements with a minimum of revisions. ERM proposes that key team members will immerse themselves immediately with all relevant documents that have been produced. This will allow ERM to preliminarily discuss the specifics of the efforts and data gaps to obtain necessary information for the SEIS. ERM will submit a Kick-Off Meeting Minutes Report to the Department within five (5) business days of the Kick-Off Meeting.

Apart from informal, as-needed communications with Department staff, ERM will provide two layers of progress reports to the Department: written monthly progress reports (we assume will be reviewed in a teleconference meeting) and semi-monthly verbal reports (we assume would be by telephone between Project Management). These will include a) progress on all tasks identified in the scope of work including expenditures to date; b) any significant interim findings; and c) any problems or conflicts that may prevent the completion of any task(s) within the allocated time or budget. Written progress reports will be submitted no later than the first day of the month beginning no later than 30 days after the contract is signed by all parties. Verbal progress reports will be provided to the Department Project Manager as well as other necessary Department staff (assumed to be a single conference call) twice each month (one week after submittal of the written progress report and then two weeks later).

As part of the data review discussed below, ERM will coordinate and participate in site visit(s) to assist Department staff with the verification of data provided by the applicant and to assist in the identification,

development and evaluation of mitigation and alternatives for the Project that may be required by the Department to avoid or minimize potential environmental impacts.

At this time, the Department does not know the exact number of site visits or meetings that will be required as part of the SEIS process. For the purposes of this proposal, ERM has estimated the costs associated with visiting Nebraska and Washington, DC a minimum of three times each.

2.2 Review of Data and Field Studies

ERM is cognizant that the overall Project schedule has slipped somewhat with the submittal of a new application for a Presidential Permit to reflect a new route through a portion of Nebraska that avoids the Sand Hills region. It will be critical for the selected contractor to come up to speed quickly on how the EIS process has unfolded over the past five years. ERM proposes that key team members will immerse themselves immediately with all relevant documents that have been produced.

Working as an extension of Department staff, ERM will apply our experience to review background data and field studies initially developed by TransCanada as part of the original EIS process. ERM will then apply particular focus on those issues, data, regulations, and information produced subsequent to publication of the FEIS. Data will be subjected to a NEPA-based review for reasonableness of approach, application of customary methods and standards, and sampling for accuracy of application in order to assess environmental impacts associated with the proposed Project. This process will support preparation of the SEIS and minimize the need for continued environmental data requests through SEIS process, which can delay a Project's schedule considerably. We anticipate this review will include but may not be limited to:

- Review of the FEIS;
- Results of field studies conducted in preparation for the August 26, 2011 FEIS and related permitting activities plus any studies performed subsequent to the FEIS;

- Results of alternatives and routing studies, particularly the initial alternative routing report submitted by the applicant to the NDEQ in April 2012;
- Project plans, alignment sheets and maps;
- Work required for complying with the Endangered Species Act, including field surveys, determination of potentially impacted species, and consultations with the U.S. Fish and Wildlife Service;
- Work required for complying with the National Historic Preservation Act, including field surveys, consultations, and review of the previously prepared Programmatic Agreement;
- Work required to delineate waters of the U.S. and wetlands that will be subject to the Federal permitting requirements;
- New applicable and potentially applicable regulations and associated developments, such as the recent Nebraska pipeline statute and current litigation over that statute; and
- Review of public comments and agency consultation provided by the applicant.

ERM will review the this background information filed with the Department, comments provided by Department staff, public comments and consultation comments, and related documents to identify any potential gaps that may remain in the analysis or reporting. There are several considerations associated with the review of this documentation: does the information meet the requirements of NEPA; what unresolved issues have been raised by agency, affected residents, and other stakeholders; and what additional information is needed to comply with applicable state and federal regulatory requirements?

We fully anticipate that new field studies and data collection for the rerouted alignment through Nebraska will be required to supplement earlier studies. These will likely include, but not be limited to, wetland and water body surveys, wildlife and habitat surveys, archaeological resource surveys, and sensitive receptor studies. ERM is prepared to evaluate the results of these studies as they become available.

ERM will review and comment on material provided by TransCanada and respond to the Department Project Manager as appropriate to ensure that sufficient

information is provided to enable Department staff to expedite the review process and provide defensible data suitable to support the NEPA analysis and SEIS documentation. On-going review, comment, coordination, and assistance will include but may not be limited to:

- Review field surveys and data that will be the basis of the new environmental document;
- Coordinate and assist (as necessary) with any new Section 7 Endangered Species Act consultations;
- Coordinate and assist (as necessary) in Section 106 National Historic Preservation Act consultations (including drafting of a new Programmatic Agreement if required);
- Coordinate and assist on any other consultations consistent with relevant laws, such as with Cooperating Agencies; and
- Provide recommendation of alternatives, as appropriate, to avoid or minimize major environmental/cultural concerns.

2.3 Preparation and Distribution of SEIS

Preparation and Distribution of Draft SEIS

ERM has considerable experience preparing environmental documents that comply with NEPA requirements. ERM has found that an important ingredient to the success of the effort is the early development of an annotated report outline. When an annotated outline is completed it can be presented to the lead agency to ensure that their requirements and governing policies and statutes are properly imbedded into the outline. In this way, the Department will be able to review the annotated outline to evaluate if it adequately addresses the requirements of NEPA. The annotated outline will also present the opportunity to evaluate how the SEIS will address the issues identified during the SEIS process.

The annotated outline will include suggested possible Standards of Significance to be applied to the different impact analysis categories. It will also include a suggested format for an Executive Summary of the impacts and mitigation measures. One approach that ERM has found to be successful is to identify impacts in

the following order: significant impacts that continue to be significant even with the incorporation of specific mitigation measures; significant impacts that are not significant when mitigation measures are implemented; and impacts that are not significant. In summary, ERM has found that the development of a solid annotated outline helps to focus the analysis, which results in developing a document that is more effective in supporting informed decisions about a proposed Project and results in a more efficient use of time and budget.

Using the agreed-to annotated outline, ERM will develop preliminary draft chapters of the SEIS. ERM will use relevant field studies and data, reports, and agency consultation provided by TransCanada to prepare the Draft SEIS. The Draft SEIS will be consistent with NEPA requirements, and the requirements of the National Historic Preservation Act, Endangered Species Act, and other applicable laws and regulations. The document will also address any issues raised during the FEIS process. The Draft SEIS will include the following sections:

Draft SEIS Sections	
1	Cover Sheet
2	Executive Summary (including Impact Summary Table)
3	Introduction
4	Description of the Proposed Project and Alternatives
5	Affected Environment
6	Environmental Consequences (including direct and indirect construction and operation related impacts as well as cumulative impacts)
7	Comparison of Alternatives
8	Conclusions (including summary of unavoidable Significant Adverse Effects) and Recommendations (including mitigation measures and mitigation monitoring plans, as appropriate)
9	Agencies and Sources Consulted
10	List of Preparers and Contributors
11	References
12	Distribution List
13	Index
14	Comments and Responses (Final NEPA documents only)
15	Appendices and Technical Reports

We discuss below some key components of the NEPA document.

Description of Proposed Action and Alternatives

The proposed Project will be fully described including each component and a discussion of its design, construction, and operation. Evaluation of alternatives is referred to as the “heart of the environmental impact statement” in NEPA. ERM recognizes that it is imperative that alternatives be identified and investigated as early as possible in the NEPA process to avoid delays associated with the late identification of reasonable alternatives. As noted previously, major routing alternatives are not anticipated to demand detailed analysis due to the nature of this Project, and the alternatives analysis is anticipated to focus more on minor route variations and other construction and design aspects associated with the Project. Clearly, careful attention to implications of the No Action and the Applicant’s description of the Project Need is essential for any NEPA document.

Affected Environment and Environmental Consequences

The Affected Environment and Environmental Consequences sections of the Draft SEIS document will address, as applicable, the following resource topics:

- Soils and Geology;
- Water Resources;
- Land Use, Recreation, and Visual Resources;
- Fisheries and Aquatic Habitat;
- Environmental Justice;
- Socioeconomics;
- Cultural Resources;
- Wetlands;
- Terrestrial Vegetation;
- Wildlife;
- Pipeline Risk/Failure Analysis;
- Air Quality;
- Noise;
- Greenhouse Gas;
- Cumulative Impacts;
- Alternatives

Based on the FEIS and additional data provided by TransCanada as part of the SEIS process, ERM will characterize existing conditions, assess potential environmental effects and significance, identify and evaluate potential alternatives, and identify mitigation proposed to avoid and/or reduce adverse impacts. The SEIS will include discussions of direct and indirect, short- and long-term impacts of construction, operation, maintenance, upset conditions, and abandonment using the information provided by TransCanada to the maximum extent practicable. A key component of the

environmental studies, particularly at the outset of resource and Project reviews, will be the alternatives under consideration. The table below summarizes key considerations for each resource and representative guidance materials and resources that will be considered in the preparation of the NEPA documentation.

NEPA Document Resource Summary

Resources	Examples of Key Considerations	Example Guidance/References
Soils	<ul style="list-style-type: none"> Erosion near waterbodies/stream bank stabilization Installation/maintenance of erosion and sedimentation control structures in compliance with project-specific Plan and Procedures Long-term impacts on soils (graded/graveled, compaction, construction activities, new roads) 	Natural Resources Conservation Service (NRCS), U.S. Army Corps of Engineers (USACE), Nebraska Department of Environmental Quality (NDEQ)
Geology	<ul style="list-style-type: none"> Geotechnical stability Geologic hazards (e.g., seismic, karst terrain) Paleontological Resources 	U.S. Geological Survey (USGS), University of Nebraska-Lincoln, Conservation and Survey Division, Geological Survey
Water Resources	<ul style="list-style-type: none"> Impacts to waterbodies/banks Potential for spills Erosion and increase in turbidity Water abundance for appropriation 	USACE, USGS, U.S. Environmental Protection Agency (USEPA), Nebraska Department of Natural Resources (NEDNR), NDEQ
Land-Use/ Recreation/ Visual	<ul style="list-style-type: none"> Zones of Concern (e.g., Sand Hills) Land-use impacts to agriculture/grazing Watershed disturbance Recreation areas Permanent Easement 	NRCS, NEDNR, Nebraska Counties' Planning and Zoning Departments
Fisheries/ Aquatic Habitat	<ul style="list-style-type: none"> Threatened and Endangered species Fisheries and fish habitat Invasive Species 	U.S. Fish and Wildlife Service (USFWS), Nebraska Game and Parks, NEDNR, NDEQ
Environmental Justice	<ul style="list-style-type: none"> Short-term and long-term impacts on EJ communities 	USEPA, U.S. Census and Bureau of Labor Statistics
Socioeconomic	<ul style="list-style-type: none"> Impacts to local population (e.g., income, housing, traffic) Local employment Increase of workforce Property value/taxes Environmental Justice 	U.S. Census and Bureau of Labor Statistics
Cultural	<ul style="list-style-type: none"> Known previously recorded archaeological sites and/or known previously recorded individual historic resources National Register of Historic Places Tribal/Ethnographic concerns Historic trails/landscapes 	Nebraska State Historic Preservation Office
Wetlands	<ul style="list-style-type: none"> Impacts and loss of wetlands Potential for spills Erosion and increase in turbidity 	USACE, USGS, USEPA, NEDNR, NDEQ
Terrestrial	<ul style="list-style-type: none"> Impacts to native prairie and grasslands Impacts to rare plant communities 	U.S. Department of Agriculture, NEDNR

Resources	Examples of Key Considerations	Example Guidance/References
Vegetation	<ul style="list-style-type: none"> • Impacts to riparian vegetation/habitat • Effectiveness of revegetation • Invasive species 	
Wildlife	<ul style="list-style-type: none"> • Threatened and Endangered species • Migratory Species • Habitat Fragmentation • Invasive species 	USFWS, Nebraska Game and Parks, NEDNR, NDEQ
Pipeline Risk/Failure Analysis	<ul style="list-style-type: none"> • Pipeline reliability • Facility Response Plan • Integrity Management • High Consequence Areas; potential for pollution of public water supply (both surface water intakes and groundwater aquifers) • Financial assurance 	U.S. Department of Transportation, Office of Pipeline Safety (PHMSA), FEMA, NEDNR, County Floodplain Administrators
Air Quality	<ul style="list-style-type: none"> • Air emissions from construction of pipeline and operation 	USEPA, NDEQ
Noise	<ul style="list-style-type: none"> • Effects on cattle • Effects on recreation 	USEPA, NDEQ
Greenhouse Gas	<ul style="list-style-type: none"> • Oil sands extraction and refinement • Air emissions from construction of pipeline and operation 	USEPA, NDEQ

Mitigation and monitoring requirements will be documented so that decision-makers and reviewers can assess not only the mitigation that will be implemented, but also how the effectiveness of the mitigation will be monitored over time. The documentation will incorporate TransCanada’s proposed mitigation and monitoring as well as any additional conditions recommended by ERM and approved by the Department as necessary to ensure that all of the mitigation processes, procedures, and objectives are met.

In addition to the key considerations listed in the table above, ERM notes that pipeline safety and reliability, potential spill impacts to sensitive receptors, and the Ogallala aquifer are important concerns previously expressed by the public in relation to the FEIS. These three issues are briefly discussed below.

Pipeline Safety and Reliability

Whereas a small leak would likely remain near the permanent right-of-way and, in theory, could be contained and cleaned up in a timely manner, a large release or any size release near a waterbody or other sensitive receptor could result in major environmental impacts. As such, pipeline safety and reliability is of primary public concern. Pipeline safety and reliability is largely a function of design, safety measures, and emergency response. Through consultation with the

Pipeline and Hazardous Materials Safety Administration and the Department, TransCanada established 57 more stringent Project-specific special conditions to enhance the overall safety of the originally proposed Project. Ultimately, TransCanada agreed to design, construct, operate, maintain, and monitor the proposed Project in accordance with these special conditions. These special conditions apply a combination of pipe and system, construction and testing, operations, maintenance, and monitoring, and reporting, record keeping, and certification. Although incorporation of these special conditions would result in a Project of a high degree of safety, these special conditions need to be reviewed and evaluated in relation to the proposed Project alternative and analyzed according to potential impacts to the environment.

Potential Impacts to Sensitive Receptors

Relative to impacts resulting from crude oil spills from the proposed Project, the impacts to environmental resources would depend primarily on the location and size of the spill. As indicated in the FEIS, spills could result from many causes, including corrosion, excavation equipment, defects in materials or in construction, over-pressuring the pipeline, and geologic hazards, such as ground movement, washouts, and flooding. Although a leak detection system would be in place, some leaks might not be detected by the system.

Additionally, impacts from an oil spill would be affected by variables such as the weather, time of year, water level, soil, local wildlife, and human activity. The extent of impact would also depend on the response time and capabilities of the emergency response team. As documented through agency responses and public comments, the initial FEIS stated that “the greatest concern would be a spill in environmentally sensitive areas, such as wetlands, flowing streams and rivers, shallow groundwater areas, areas near water intakes for drinking water or for commercial/industrial uses, and areas with populations of sensitive wildlife or plant species.” Therefore, the environmental analysis and SEIS needs to adequately address these sensitive receptors in relation to potential impacts that could occur during the construction, operation, and maintenance of the proposed Project alternative route.

Ogallala Aquifer

The new route alternative TransCanada has proposed for the Nebraska section of the Project avoids the Sand Hills, an environmentally sensitive area; however, the pipeline would still cross part of the Ogallala aquifer, potentially putting at risk a significant water supply source. The aquifer covers eight states and 30 percent of the groundwater used for irrigation nationwide. Since a potential oil spill from the pipeline could contaminate part of the aquifer, the alternative route proposed by TransCanada is still a source of public concern for the Project. As a result, the environmental analysis and SEIS needs to address pipeline reliability, spill response, and mitigation measures as they apply to potential impacts to groundwater resources that could occur during the construction, operation, and maintenance of the proposed Project alternative route.

Document Review and Assembly

The technical data used to develop the draft chapters will be referenced and copies of technical reports will be maintained in the administrative record in a fashion that can be readily incorporated into an SEIS Technical Appendix. The preliminary draft chapters will be subject to ERM’s quality assurance/quality control (QA/QC) review to ensure that they meet technical standards and that the information is clearly presented. To facilitate the review schedule, the Preliminary Draft SEIS will be prepared as a series of separate chapters. As

preliminary draft chapters are completed a printed copy and an electronic copy will be submitted to the Department for review and comment. These chapters may also be submitted to cooperating agencies for review, as appropriate. When one unified set of comments on the separated draft chapters is received, a meeting or conference call, as appropriate, will be used as the forum to address them and to reach a consensus as to their resolution. Based on the consensus, the draft chapters will be revised for incorporation into the Draft SEIS. When all parties are in agreement that the information in the Draft SEIS is correct and appropriate, ERM will prepare camera-ready copies of the Draft SEIS and any required notices for submission to the Department and arrange for printing and mailing. For purposes of proposal preparation, ERM has assumed that we will print and distribute 250 copies of the Draft SEIS to cooperating and consulting agencies and other interested stakeholders.

Preparation and Distribution of Final SEIS

During the development of the Draft SEIS, ERM will present a comment response methodology to the Department for review and comment. ERM personnel have prepared numerous comment response documents and are aware that there are a number of alternative strategies for managing the comment response process. ERM will work with the Department to ensure that the Department approves the approach that will be implemented.

When the public comment period is completed, ERM will work with the Department to compile a master database record of all of the comments. This will include the written comments as well as those made at the public meetings and reflected in the meeting transcripts. ERM will organize the comments in a format approved by the Department and will provide a printed and electronic versions of all of the comments.

An initial meeting or conference call is proposed to discuss the comments and to reach a consensus about the responses that will be developed. ERM will then develop an initial comment response document. The comment responses will be subject to an internal QA/QC review and then will be submitted to the Department. When a unified set of comments is received, a meeting or conference call, as appropriate,

will be used as the forum to address the comment responses and to reach a consensus as to their resolution. The comment responses will be used as the basis for making changes to be reflected in the Final SEIS.

The Draft SEIS will be revised to incorporate changes to reflect the comment responses to form the administrative draft of the Final EIS. This document will be subjected to internal QA/QC review and editorial review. When an administrative draft of the Final SEIS is completed it will be submitted to the Department a printed document as well as in an electronic version for review and comment. When a unified set of comments is received, a meeting or conference call, as appropriate, will be used as the forum to address any additional changes needed to develop the Final SEIS. When the necessary changes are made a final screen-check review will be made with the Department. When the Department approves the document, ERM will prepare camera-ready copies of the Final SEIS and any required notices for submission to the Department and arrange for printing and mailing. For purposes of proposal preparation, ERM has assumed that we will print and distribute 250 copies of the Final SEIS to cooperating and consulting agencies and other interested stakeholders.

2.4 Public Communications Support

Prepare Notices of Intent

ERM can prepare Draft Notice of Intent (NOI) announcements for the NEPA Document in accordance with 40 CFR Section 1508.22 for publication in the Federal Register and with appropriate news media (local newspapers, radio stations, etc.), as needed. ERM will prepare and submit the Draft NOI for Department review. ERM will respond to all Department comments and provide an Interim NOI for Department review. ERM will incorporate all Department comments from the review of the Interim NOI and deliver the Final NOI, ready for publication in the Federal Register, and with news media, as appropriate. The locations for newspaper publication and other media will be identified with the NOI Submittal. The NOI will also include the website and/or address where the public can submit questions and comments. ERM will also

develop mailings for distribution with the NOI to all interested parties and expert agencies identified on the mailing list/database.

Coordinate and Support Public Meetings

ERM will develop a Public Process Plan as part of ERM's internal management process. This plan will be provided to the Department for review and approval. The Public Process Plan will provide a guide to the NEPA public meeting process. At a minimum, the Public Process Plan will include a narrative description of the public process strategy; the current mailing and contact list of government contacts and anticipated/Projected interested parties (i.e., Federal, state, local, and tribal governmental agencies and private individuals and organizations); drafts of public process instruments, such as Fact Sheets, registration cards, comment forms, and presentation materials; proposed list of newspapers and other media in which notices will be placed and a list of libraries and other sites at which NEPA materials will be made available for public inspection.

ERM will coordinate and support Department public meetings. ERM will prepare notices and presentation materials for the meetings, make the necessary arrangements for meeting halls, court reporters, and translators, prepare announcements in the appropriate news media, develop materials for meetings, participate in meetings and prepare reports summarizing the results of the meetings.

Following the close of the formal comment period, ERM will organize and compile all comments that have been received as part of the public meetings and comment process. ERM would prepare a draft document for the Department to review, address comments and prepare a final document for transmittal to the Department for review and distribution.

Maintain Mailing List/Database

ERM will prepare and maintain a computerized (Microsoft Access 2007 compatible), sortable mailing list. Current mailing lists provided by TransCanada will be consolidated, verified, maintained, and updated as a Project-specific mailing list of agency staff, officials, community/environmental / other non-government groups, affected property owners, and other concerned

citizens or interested parties. The list will be maintained and updated by ERM throughout the contract period. If directed by the Department, ERM can provide registration cards for any public or NEPA meetings to document attendees that wish to be registered, can help manage the comment process, and, if appropriate, help manage distribution of public NEPA documents by means other than the Project website.

Set Up and Maintain Project Website

ERM will provide and maintain an internet website that will serve as an effective public Project management tool and efficient communication tool to disseminate public Project information. The website would provide Project background, post public Project documents, information, and updates, list and answer frequently asked questions, and include agency contact information. In addition, the website would allow the public to provide comments concerning the Project. The target audience would include various agency staff, national and regional public sector officials, private sector experts, and the general public. The website will be maintained and updated by ERM throughout the contract period. The Department will work with ERM to approve the content developed for the website.

2.5 Administrative Record

ERM will provide and maintain a Project, web-based administrative record to enhance Project communication and security. The administrative record site will be a secure site that can be used for the dissemination of guidance or updates to the Project, as well as for the posting and review of resource reports and Project-related documents.

ERM will set up the administrative record site on an ERM file server and will provide a secure, fast, virtually hardwired network connecting ERM and the Department. Protocols and passwords will be established to enable access to data and functions (“read only,” for example).

One of the primary features of this approach will be to enable more rapid exchange of interim work products for review both ERM and the Department. Documents and sections of documents will be posted for review with separate fields created for comments. Authors will

be able to review and respond to comments on a virtually real-time basis.

2.6 Project Management

Request for Supporting Maps

ERM will determine the need for supporting maps for inclusion in the SEIS. We understand that TransCanada will be responsible for developing the maps required for the SEIS. Working with Department staff, ERM will identify the maps that are needed for the SEIS and coordinate requests with the Department.

Preparation of Documents

ERM understands that preparation, printing, and reproduction of all Project-related documents, reports, and notices are the responsibility of ERM. All Project-related documents will be provided to the Department in both hard copy and electronic formats. All electronic files will be in Microsoft Word. The camera-ready versions of the SEIS will be provided as PDF files. It is our understanding that the SEIS will be provided in English only.

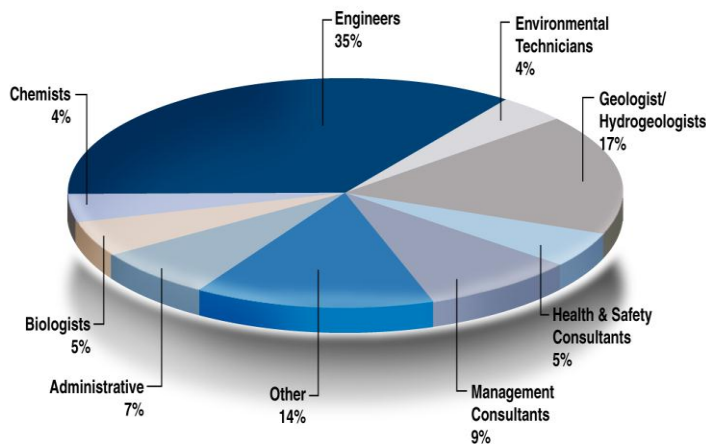
Project Management System

ERM will develop and maintain a formal Project management system to allow for weekly tracking of schedule and budget status for the Project and will provide Project status reports on a regular basis that meet anticipated reporting requirements. Upon commencement of this work, ERM will coordinate with the Department Project Manager to establish a schedule for holding regular status calls (estimated to be semi-monthly for this proposal). The purpose of the calls will be to summarize completed tasks, identify anticipated action items for the coming week, and to notify the Project Manager of any issues or concerns that could affect the scope or schedule of the review. In addition, we anticipate (based on our work on other third-party contracts) that there will be frequent, informal conversations between the Project Manager, Deputy Project Manager, and the Department Project Manager, as appropriate to ensure that the analysis meets the Department's needs and expectations. Section 3 of this proposal addresses ERM's Project Management System in greater detail.

3. Project Organization and Management Approach



With 140 offices in 40 countries, ERM brings a wealth of knowledge and expertise to each project.



ERM is committing Steve Koster, PE as Project Manager and Andrew Bielakowski as Deputy Project Manager for the duration of the Project.

TEAM ORGANIZATION

The ERM team comprises a compact team of highly qualified, experienced professionals designed to provide NEPA review with a top quality, technical SEIS within budget and on schedule, satisfying all NEPA expectations and regulatory requirements. This section of the proposal describes our team and management approach.

The figure below shows the ERM team organizational chart including the senior management team and senior technical specialists. In order to deliver the excellent level of service that the Project demands, ERM is proposing a strategy to best utilize our resources to provide the Department with the appropriate level of technical support needed for this Project.

- ERM will use a combination of experienced staff in order to bring our very best NEPA talent to the Project.
- ERM will draw on multi-disciplinary support from our Midwest and Gulf Coast offices, supplemented from our Annapolis Maryland and Washington DC offices, to provide the broad range of technical expertise that may be required to support a technically and procedurally defensible SEIS.

The senior management team is comprised of Steve Koster, PE as Project Manager, with Andrew Bielakowski assigned the Deputy Project Manager role.

ERM is committing Steve Koster, PE as Project Manager and Andrew Bielakowski as Deputy Project Manager for the duration of the Project.

Steve Koster, PE

As the Project Manager, Mr. Koster will have responsibility for ERM's successful completion of the Project. He will provide overall technical, schedule, cost, and management oversight of the Project, and will be responsible for the following functions:

- Providing overall Project Management direction;

- Ensuring Contract compliance;
- Performing resource planning;
- Maintaining the highest NEPA compliance standards;
- Monitoring and reviewing progress on Project milestones;
- Senior management point-of-contact for Department staff, as needed;
- Identifying and resolving technical problems;
- Interfacing with agency Project management; and
- Performing technical review of deliverables.

Steve Koster has more than 25 years of experience in environmental impact assessment, permitting, and impact mitigation for oil and gas projects.

Mr. Koster has managed multi-disciplinary teams to support development in multiple aspects of the oil and gas sector including pipeline, exploration and production, and retail. His management experience includes environmental impact assessments, environmental studies, and permitting of dozens of liquid petroleum and natural gas pipeline projects. He has overseen baseline studies and impact assessments for federal NEPA and/or state EIS throughout the Midwest; provided community, tribal, and stakeholder engagement support on highly visible and controversial siting and permitting projects; served as expert witness and provided litigation support in various judicial venues; and negotiated permit conditions with regulatory officials.

Mr. Koster has served as Partner-In-Charge or Project Manager for numerous NEPA EIS and EA projects, siting studies, and state/federal permitting projects. Projects have included surface water and groundwater hydrologic studies and modeling, wetland delineations, threatened and endangered species surveys and taking permits, aquatic surveys, wildlife assessments, soil erosion and sedimentation control permitting, air quality assessments, noise and visual studies, socioeconomic analyses, stakeholder mapping and engagement plans, and public meetings and presentations.

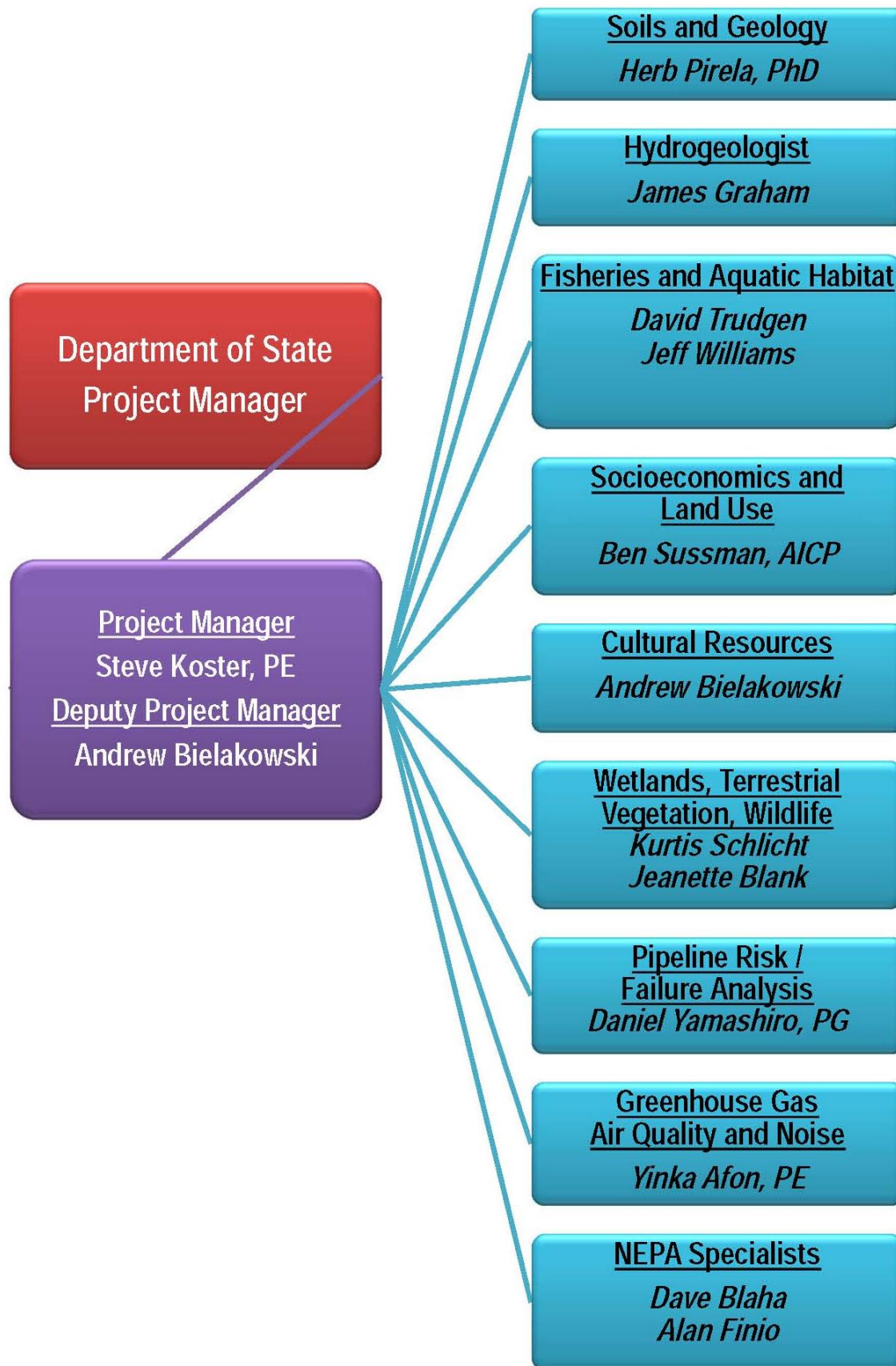
Andrew Bielakowski

As Deputy Project Manager, Mr. Bielakowski will be responsible for daily supervision and direction of Project team activities, compliance with Project budget and schedule, Project administrative duties, and coordination with Department staff. Mr. Bielakowski will also serve as Technical Lead for Cultural Resources.

Mr. Bielakowski has over 12 years of relevant experience with impact assessment, facility permitting, and natural and cultural resource management. He is thoroughly familiar with the regulatory/procedural requirements of NEPA, third-party NEPA protocols, and has extensive experience with Section 7 of the Endangered Species Act, Section 106 of the National Historic Preservation Act, U.S. Army Corps of Engineers Section 404 Authorization, Section 401 Water Quality Certification, Stormwater Pollution Prevention Plans (SWPPP), EISs, and EAs. He has managed the permitting and environmental compliance of numerous large-scale energy development and maintenance projects subject to high levels of environmental review and scrutiny. He has worked on various FERC pipeline projects and also the Alberta Clipper Project, a Department of State Presidential Permit project. Mr. Bielakowski has reviewed and negotiated the regulatory requirements of various federal, state, and local agencies associated with these projects in multiple states. His combination of third party experience along with his hands-on experience addressing environmental compliance issues during pipeline permitting and construction will be a valuable asset in evaluating issues raised by affected landowners, the public, special interest groups, and government agencies.

Staff

ERM has assembled a Project team consisting of highly experienced key personnel, with deep staff resources across all scope of work disciplines to provide specialized expertise across the Project platform.



Successful completion of any program or project requires understanding the client’s needs, technical competence, managerial skills, and the ability to prepare and execute detailed work plans consistent with applicable goals, regulations, and guidance documents. ERM has assembled a team of highly qualified and experienced professionals whose skills meet all program requirements, and whose qualifications, education, and responsibilities are tailored to the RFP requirements to successfully accomplish the diverse and complex work that is anticipated under this program.

The ERM Team organizational chart, presented on the previous page, shows the roles, responsibilities, and lines of reporting for key staff. Detailed resumes are included in the Resume section of this proposal.

Staff Qualifications

Personnel are ERM’s greatest asset. In staffing the Project, ERM has identified a group of individuals who have experience to address the particular challenges of this Project. The ERM team will be available to work on the Project to the extent required to meet or exceed expectations, expedite the preparation of a legally-defensible SEIS, and will assist the Department to facilitate the completion of this review.

Location of Work and Staff

The work effort will be undertaken in a seamless fashion such that the Project gets a responsive team providing high quality deliverables. The Project team has extensive NEPA and pipeline experience. Additionally, our offices all have requisite support staff, GIS /CAD capabilities, and share the same electronic network and e-mail system.

ERM’s Project team is drawn from a variety of Midwest and Gulf Coast offices, including Livingston Montana, St. Paul Minnesota, Holland Michigan, Overland Park Kansas, and Houston Texas. Other members are based in our Annapolis Maryland and Washington DC offices. The Project team members are experienced in environmental impact assessment of pipeline facilities in the Midwest and the U.S.

Staff Name /Role	Years of Experience	Education	Location
Herb Pirela <i>Soils and Geology</i>	20	PhD Soil Chemist, 1987 MSc Soil Fertility, 1982 BS Agronomy, 1980	
James Graham <i>Hydrogeologist</i>	28	B.S. in Geology, Texas Tech University, Lubbock, Texas, 1984	
David Trudgen <i>Fisheries and Aquatic Habitat</i>	36	Secondary Education, University of Alaska Anchorage, 1983-1984 BS Wildlife Biology and Management, 1976	
Jeff Williams <i>Fisheries and Aquatic Habitat</i>	18	Pre-Medical Curriculum, 1992 BS Biology, 1994	
Ben Sussman <i>Socioeconomics and Land Use</i>	13	MCRP (City and Regional Planning), 2002. BS Science, Technology, & Society, 1998	
Andrew Bielakowski <i>Cultural Resources</i>	12	MA Archaeology, 2000 BS, BA Anthropology, Classical Civilizations, Philosophy, 1998	
Kurtis Schlich <i>Wetlands, Terrestrial Vegetation, Wildlife</i>	18	BS Biology, 1990	
Jeanette Blank <i>Wetlands, Terrestrial Vegetation, Wildlife</i>	14	MS Earth Science, 2004 BS General Science, 1997	
Daniel Yamashiro <i>Pipeline Risk/ Failure Analysis</i>	30	MS Geology, 1986 BS Geology, 1982	
Yinka Afon, PE <i>Air Quality and Noise</i>	9	MSE Environmental Process Engineering, 2004 BS Chemical Engineering, 2001	
Dave Blaha <i>NEPA Specialists</i>	30	MA Environmental Management, 1981 BA Biology, 1978	
Alan Finio <i>NEPA Specialists</i>	25	BS Environmental Science & Biology, 1985	

Communication

Frequent and effective communication is a tool that the key staff uses daily to promote the integration of information and data, close coordination of cross-cutting natural resource issues and problems, leading to the production of high quality NEPA documents.

A key component of our approach to managing projects is an effective communication process. Effective communication is essential to successful project management. It streamlines workflow, staffing, promotes cost control, effective data management, ensures quality documents, and supports the identification and reduction of risk. The proposed Project Manager, Steve Koster, will act as the responsible point-of-contact for all task direction under this contract and for receiving and disseminating all external communications and information. Andrew Bielakowski, the Deputy Project Manager, will be involved in all aspects of the Project, will be included in all communications, and be able to stand in for Mr. Koster as needed.

Working with the Department of State Project Manager, Mr. Koster will establish a schedule for presenting status updates to ensure that the Department Project Manager remains aware of Project status and any issues or changes that could affect scope or schedule. We also anticipate frequent (sometimes daily) informal discussions with the Department Project Manager and other assigned staff to discuss Project activities and issues.

Within the ERM Team, we will have a kick-off meeting with all staff to ensure they fully understand the Project scope, schedule, budget, communication protocols, and any confidentiality requirements. Regular meetings will be held between the ERM Project Manager, Deputy Project Manager, and the Department Project Manager, including a Project Kickoff meeting. Conference calls will be used to identify and resolve issues as they arise and provide the appropriate ERM Team personnel with the knowledge to make effective decisions.

Conference Calls

In addition to preparing for and participating in semi-monthly Department conference calls, ERM will hold internal Project team conference calls semi-monthly among the ERM's managers, senior specialists, and other technical staff, as needed. The purpose of these calls will be to assess progress on tasks; communicate interactions with team to Project staff; identify changes in requirements while ensuring consistency in interim and final deliverables; discuss resource planning ; identify corrective actions to avoid or mitigate problems; and discuss other issues related to quality management. Project controls, described in a later subsection, also will be discussed. One important result of these meetings will be to ensure the availability of qualified staff as Project requirements may change over time.

Reporting

ERM understands the need to report on technical and cost performance to the Department. If requested, ERM can develop weekly reports that will focus specifically on technical progress. We also propose to provide routine updates in team conference calls and meetings, at a frequency acceptable to the Department. Communications with TransCanada will be as directed by and only with the full approval of the Department.

Response to Workload Changes

From our years of experience on other large contracts with nationwide simultaneous tasks, the Department can feel confident that ERM excels at accommodating workload fluctuations. The following table presents ERM's approach to managing our workload.

Response to Workload Changes	
Workload Scenario	Management Approach
Changing Discipline and Professional Level Mix	One of our team's fundamental strengths is the ability to continually evolve through project phases. Changing discipline and professional level mixes to accommodate the requirements of a specific task is commonplace. These actions are possible because of our geographic diversity, depth of resources, and diversity of contract backlog.
Rapid Increase in Workload	Anticipating potential problems and planning ahead are the best ways to address rapid workload increases. ERM reduces the project learning curve by deploying personnel knowledgeable and experienced in NEPA environmental work. ERM maintains in-house recruiters who are constantly searching for the best and brightest to supplement our growing staff.
Rapid Decrease in Workload	This situation will be addressed by anticipating and monitoring Team activities; temporarily relocating staff to other offices; and shifting staff to other contracted work. ERM has demonstrated our ability to thrive during downturns in the economy without significant turmoil based on loyal clients and a business strategy focused exclusively on environmental consulting.
Fluctuating Workloads	ERM will manage workload fluctuations by having core staff execute a steady base-load of work and manage increased or decreased workloads as described above. Fluctuating requirements for home and field office personnel for studies, investigations, design and other activities are routine occurrences in the environmental business. Many projects or tasks are small and of short duration. Professional and technical personnel are typically assigned to multiple projects so they can move between assignments efficiently with no down time. ERM maintains an average billability of technical staff at approximately 70% to allow for transitions between different projects while maintaining staff continuity.

Our Management Approach

We work in partnership with our clients to develop and implement the strategies, management systems, programs, and tools necessary to effect long-lasting and meaningful change:

- We encourage our consultants across disciplines to collaborate to solve clients' challenges.
- Our offices are managed by local professionals with strong technical and management track records, who understand the local regulatory systems, socio-political issues, and environmental concerns.
- Our global electronic intranet enables us to communicate with each other and share best practice and an extensive knowledge base effectively.

Leveraging ERM's global network, we have assembled a Project team with the best mix of NEPA experience and technical expertise, knowledge of national and local regulations, and geographic proximity to the Project.

ERM's Approach to Project Management

To help ensure consistent quality and innovation in our management of this Project, ERM will implement a quality management process involving a senior project management team of the Project Manager (PM) and the Deputy Project Manager (DPM). In the simplest terms, the PM is ultimately responsible for overseeing the client relationship, final work products/deliverables, and overall performance. The PM's responsibility is to set the project direction and to provide regular quality assurance and quality control reviews of project team performance and project deliverables. DPMs oversee the daily activities and manage the project staff and financial performance. ERM's PMs and DPMs have all been trained extensively in the process and expectations of the ERM's project management program and adhere to rigorous quality standards.

Each month (or more often, as needed) the PM and SPM meet to review the project and score the following eight fundamental quality criteria:

- Safety
- Technical scope
- Schedule
- Quality of deliverables
- Contractual obligations (including subcontractors)
- Finance
- Staffing
- Communications
- Progress towards the desired outcomes

In these monthly meetings the PM and DPM discuss each of these criteria, their relation to and impact on the project as a whole, and then agree upon a score for each of the factors. The corrective actions identified during these meetings are documented, assigned responsibility, and addressed by the team. The PM team will investigate identified issues and will generate a corrective action plan together. Depending on the nature and severity of the action, a management team may also be engaged to evaluate further the root cause of the initial action and to make modifications in the project, team personnel or procedures to prevent a repeat occurrence.

On a project level, ERM also develops and follows a documented Quality Assurance Process (QAP) on appropriate projects to ensure that recommended procedures and guidelines are followed. Typical components of a QAP for field-related programs include:

- Project organization and responsibility
- Data quality objectives
- Sampling procedures and field measurements
- Sample handling, documentation, and custody
- Quality assurance procedures and laboratory activities
- Quality assurance procedures for field activities
- Data reduction, assessment and validation
- Audit corrective action
- Document and record management

Technical Direction

ERM has found that the most efficient technical direction for a complex project is to have the PM and DPM cognizant of and conversant with ALL aspects of the Project and issues. As a second tier, specific key technical staff will assume responsibility for understanding all aspects of particular groups of areas, such as engineering, physical sciences, or biological sciences. Regular communication and team meetings internal to ERM have always ensured a free flow of information and consistency of Project and issue understanding. This ensures that all NEPA Document authors are confident in their understanding of the Project and issues and how their particular areas relate to other areas, as well as the Project as a whole.

Use of Small and Small Disadvantaged Owned Business Enterprises

ERM has a successful Supplier Diversity Program that is evolving as an integral part of our business strategy. Our written Supplier Diversity Policy commits to providing diverse suppliers the maximum practicable opportunity to participate in the subcontracts that ERM awards in the United States, and to supply goods and services to support ERM's operations.

As part of our outreach program, we make every effort to ensure that small and disadvantaged business concerns are actively sought out and solicited by our project managers and have an equal opportunity to compete for subcontracts.

Whenever practicable, good faith efforts are made to achieve – and exceed – our subcontracting goals. ERM maintains an in-house database of prequalified SB entities, most of which have been identified in the normal course of business over the past 35 years. Each of our pre-qualified subcontractors that performs field work must complete ERM's Supplier Information Form. This form captures each subcontractor's experience, business performance, and health and safety record, as well as business categories for tracking and achieving our supplier diversity goals.

ERM makes frequent use of small and small disadvantaged owned business enterprises (DBE). Many of our government contracts have a contract percentage DBE set aside. If selected for this Project, ERM will work with the Department of State to use DBEs where appropriate.

ERM has developed an internal process of actively categorizing our company-wide subcontracting expenditures. This data is used to satisfy requirements that many of our clients have for tracking supplier diversity. In fiscal year (FY) 2011, our subcontracting expenditure (as a percentage) to small and disadvantaged businesses was 34%. Based on the 2011 data, we can further subdivide the subcontractor spend as follows:

WOSBs = 8% of total spend

SDBs = 7% of total spend

DVBE = 2% of total spend

The breakdown is shown in the pie chart below. The exact categories represented below reflect tracking in place in 2011, and can be updated and sorted to reflect the business categories listed in the RFP.

Subcontracted Spent Dollars (%)

