

**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

In the Matter of Remedial Action by:

Burlington Environmental, LLC

FIRST AMENDMENT TO AGREED ORDER

No. DE 7347  
[Docket # 11328]

TO: **Burlington Environmental, LLC**  
**18000 – 72<sup>nd</sup> Avenue South, Suite 217**  
**Kent, Washington 98032**

**A. INTRODUCTION**

Agreed Order No. DE 7347 (2010 Agreed Order) entered into by the State of Washington, Department of Ecology (Ecology) and Burlington Environmental, LLC, (Burlington) in 2010 requires remedial action at a facility where there has been a release or threatened release of hazardous substances. Burlington is the legal owner of the facility. Burlington is a wholly-owned subsidiary of PSC Environmental Services, LLC which is a wholly-owned subsidiary of Stericycle Environmental Solutions, Inc. Consistent with the 2010 Agreed Order, Burlington will be referred to herein as “PSC.” This First Amendment to the 2010 Agreed Order requires PSC to design and implement a new cleanup action for the remediation of groundwater contaminated with 1,4-dioxane. This amendment also establishes a new restoration timeframe for the site-wide attainment of 1,4-dioxane groundwater cleanup standards.

**B. JURISDICTION**

This First Amendment to the 2010 Agreed Order is issued by Ecology pursuant to the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

**C. AMENDMENT**

This amendment does not recite all provisions of the 2010 Agreed Order. All sections of the 2010 Order not specifically amended herein shall remain in full force and effect and unchanged.

This amendment results in substantial changes to the work to be performed and has been the subject of public notice and comment under WAC 173-340-600.

**Amendment to Section V.**

Agreed Order No. DE 7347 is hereby amended to incorporate the following addition, which is an integral and enforceable part of that Order:

**Add the following paragraph to Section V, Findings of Fact:**

11. In April 2014 Stericycle Environmental Solutions, Inc. acquired PSC Holdings, Inc. PSC Holdings, Inc. owns PSC Environmental Services, LLC. Burlington Environmental, LLC, a wholly owned subsidiary of PSC Environmental Services, LLC, owns the Facility.

**Amendment to Section VII.**

Paragraph 17 of Section VII, WORK TO BE PERFORMED, states that “[i]f Ecology concludes that monitoring data and trend projections indicate that 1,4-dioxane concentrations will not attain cleanup levels by 2015, and the problem is due to poor performance by the cleanup action (natural attenuation), PSC will be directed to propose actions, such as implementation of the contingent remedy, to expeditiously attain cleanup levels.” Ecology made such a determination on June 19, 2014, and PSC has been directed to propose actions. The action selected to expeditiously attain 1,4-dioxane cleanup levels is not the contingent remedy described in the 2010 Cleanup Action Plan, Exhibit D of this Order. It is the action discussed in new Exhibit F.

Consequently, Agreed Order No. DE 7347 is hereby amended to incorporate the following provisions, which are integral and enforceable parts of that Order:

- 1. Delete the requirement in (2)(r) of Section VII for submittal of a RD/RA Work Plan for pumping and treating 1,4-dioxane-contaminated groundwater at well CG-122-60.**
- 2. Add the following new requirement in (2)(r) of Section VII:**

A draft RD/RA Work Plan for reducing levels of 1,4-dioxane-contaminated groundwater. The Work Plan’s cleanup action shall be consistent with Ecology’s

preferred alternative, described in Exhibit F. As such, the objective of the Work Plan's cleanup action shall be to reduce 1,4-dioxane-contaminated groundwater in all site areas, east and west of 4<sup>th</sup> Ave. S., to the CAP's groundwater cleanup standards by 2032. It shall comply with the requirements of WAC 173-340-400(4) and document engineering concepts and design criteria used for design of the 1,4-dioxane cleanup action. It shall include sufficient information for the development and review of construction plans and specifications. It shall include all components of the selected 1,4-dioxane remedy, design objectives, a detailed implementation plan, and an implementation schedule (as described in (d) above). The implementation schedule will include a critical-path Gantt chart timeline showing anticipated dates and timeframes for all deliverables submitted, and cleanup action elements submitted. The draft Work Plan may be a document containing plans for all elements of the 1,4-dioxane cleanup action. These include plans described in (2)(a), (b), (q), and (s), above, for, specifically, the 1,4-dioxane cleanup action. Or, the draft Work Plan may propose a schedule for submitting certain future plans or other cleanup-related deliverables. The Work Plan shall be considered part of, and appended to, the approved Engineering Design Report.<sup>1</sup>

**3. Modify the requirement in (3) of Section VII to add the following second paragraph:**

Ecology shall review the draft 1,4-dioxane RD/RA Work Plan described in (2)(r) above and provide comments. Within sixty (60) days of receiving Ecology's comments on the draft Work Plan, PSC shall submit a revised Work Plan that satisfactorily addresses Ecology's comments. Ecology will then approve the revised Work Plan as the final deliverable, approve the revised Work Plan with changes or conditions, or disapprove the Work Plan and provide additional

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<sup>1</sup> The Engineering Design Report (EDR) was approved in stages, as documented in Ecology letters mailed on May 13, June 15, July 12, and August 14, 2011. On September 14, 2011, Ecology received PSC's revised EDR document. On September 19, 2011, Ecology notified PSC that "[i]f, as PSC's cover letter states, the September 14 EDR incorporates 'all conditionally-approved changes...required...by Ecology,' and incorporates them in a fashion the Department would approve, it can serve to represent the 'final EDR.'"

comments to PSC. If Ecology disapproves the revised Work Plan, PSC shall revise the Work Plan to satisfactorily address Ecology’s comments and submit a new revision within forty-five (45) days of receiving Ecology’s latest comments. This process shall be repeated, as necessary, until a satisfactory Work Plan is submitted, or a determination is made under paragraph VII.10 below. Once finalized, the RD/RA Work Plan shall be considered part of the approved Engineering Design Report.

**4. Modify the requirements in (4) of Section VII to insert the following second sentence into the first paragraph:**

Plans submitted after the EDR has been approved include the 1,4-dioxane RD/RA Work Plan described in paragraph (2)(r) above.

**5. Modify the requirements in (18)(f) of Section VIII to:**

If PSC is required to submit additional work plans under this Order, or to conduct activities related to corrective action not previously part of the original cost estimate, an adjusted cost estimate shall be prepared and submitted in accordance with the process outlined in paragraph (e) above. For the 1,4-dioxane RD/RA Work Plan described in Section VII.3, the written, adjusted cost estimate shall be submitted within forty-five (45) days of Ecology’s approval of the RD/RA Work Plan.

**6. Modify the Schedule of Deliverables in Exhibit E to include:**

<i>Item #</i>	<i>Deliverable</i>	<i>Due Date</i>
VII.2.r	Draft 1,4-dioxane RD/RA Work Plan	60 days from the effective date of Agreed Order Amendment I.
VII.3	Revised 1,4-dioxane RD/RA Work Plan	60 days from receipt of Ecology’s comments on the draft Work Plan
VIII.18	Adjusted cost estimate to cover 1,4-dioxane cleanup activities within the site	45 days from Ecology’s approval of the 1,4-dioxane RD/RA Work Plan
VIII.18	Establishment of financial assurance coverage in the amount of adjusted cost estimates, approved by	Within thirty (30) days after Ecology’s final approval of

	Ecology, and submission of applicable financial assurance documentation	PSC’s adjusted cost estimate amount, or PSC’s receipt of an adjusted cost estimate amount, approved by Ecology
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**7. Exhibit D, Cleanup Action Plan.**

The 2010 Cleanup Action Plan (CAP) includes various references to the cleanup of 1,4-dioxane in site groundwater. Although it anticipated the possible need to implement a future action in addition to monitored natural attenuation to achieve 1,4-dioxane cleanup standards, it:

- a) identified a contingent 1,4-dioxane remedy that is different than the action Ecology selected in 2015 (described in new Exhibit F);
- b) limited the goals of 1,4-dioxane cleanup attainment to the eastern portion of PSC’s site (i.e., east of 4<sup>th</sup> Ave. S.); and,
- c) did not establish an alternative restoration time frame for achieving 1,4-dioxane groundwater cleanup standards, in the event that monitored natural attenuation was unable to attain those standards by 2015.

Consequently, the 2010 CAP is hereby amended to **add a new page ix, titled “2015 Cleanup Action Plan Revisions, Consistent with Agreed Order DE 7347 Amendment I.”**

This new page follows below:

**2015 CLEANUP ACTION PLAN REVISIONS,  
CONSISTENT WITH AGREED ORDER DE 7347  
AMENDMENT I**

Exhibit D, the Cleanup Action Plan (CAP), was approved and finalized in 2010, together with Agreed Order DE 7347. On page 8 of the CAP, Section 1.3.2, the document states that:

*Ecology will decide by 2010 whether natural attenuation is achieving cleanup of 1,4-dioxane within the Outside Area within a reasonable timeframe. It is possible that by this time additional sources of the dioxane contamination will also be discovered. If in 2010 natural attenuation does not appear capable of achieving cleanup within a reasonable timeframe, PSC will implement a mass-reduction action.*

On June 19, 2014, Ecology notified PSC that natural attenuation did not appear to be capable of achieving 1,4-dioxane groundwater cleanup standards within a reasonable timeframe, and PSC was directed to propose a 1,4-dioxane cleanup mass-reduction action that would subsequently be designed and implemented. The mass-reduction action proposed by PSC, and later approved by Ecology, is not the contingent remedy described in Section 6.3 of the 2010 CAP. Nor is the reasonable restoration timeframe for 1,4-dioxane cleanup attainment specified in the 2010 CAP (five years) the timeframe now expected, following implementation of the new mass-reduction action. Furthermore, the 2010 CAP focused on contamination in the eastern portion of PSC's Georgetown site. It did not include actions whose direct purpose was to achieve groundwater cleanup standards within a reasonable timeframe in site areas west of 4<sup>th</sup> Ave. S. For these reasons, the CAP is hereby amended as follows:

- (1) New Exhibit F, which contains: PSC's January 16, 2015, "1,4-dioxane Remediation Approach Focused Feasibility Study;" Ecology's February 13, 2015, letter, responding to that Technical Memorandum; and, supplemental information and response to comments submitted by PSC on March 16, 2015. These documents describe PSC's January 16, 2015, Alternative #2, the 1,4-dioxane mass-reduction action that will be designed and implemented in accordance with Ecology's June 19, 2014, and February 13, 2015, letters. Alternative #2 has three primary elements: a) application of in situ chemical oxidation; b) performance of a 1,4-dioxane biodegradation study; and c) enhanced in situ bioremediation (ISB), should the biodegradation study conclude that enhanced ISB is likely to be effective and beneficial, and can be safely applied. This action is needed based on site information collected following issuance of the 2010 CAP. It is not, however, the contingent remedy described in Section 6.3 of the 2010 CAP.
- (2) The reasonable restoration timeframe for 1,4-dioxane cleanup attainment is 2032, the same timeframe specified in the 2010 CAP for other contaminants in site groundwater. The 2010 CAP's restoration timeframe of 2015 was based on concentration reduction assumptions, attributable to natural attenuation, that were based on the RI/FS's plume characterization and evaluation of 1,4-dioxane concentration trends. Subsequent to issuance of the 2010 CAP, additional characterization efforts and continued tracking of plume concentrations have indicated that elevated concentrations of the compound persist at multiple locations and will not decrease to cleanup levels by 2015. The goal of the mass-reduction action described in Exhibit F is to hasten dioxane cleanup level attainment and thereby realize a 2032 restoration timeframe for: all groundwater contaminants in the eastern portion of the site, and 1,4-dioxane throughout the site.
- (3) Achievement of 1,4-dioxane groundwater cleanup standards in site areas both east and west of 4<sup>th</sup> Ave. S. will be accomplished pursuant to cleanup actions required by Agreed Order DE 7347. In 2010, when Agreed Order DE 7347 was issued, its CAP was primarily intended to address

groundwater contamination east of 4<sup>th</sup> Ave. S. Groundwater contamination west of 4<sup>th</sup> Ave. S. was known to be due to releases from multiple Potentially Liable Persons (PLPs) and in 2010 was still being investigated. In April 2014, Agreed Order DE 10402 was issued to govern feasibility studies of contamination located in this “west of 4th” area. PSC is one of 4 PLPs party to this Order. Feasibility studies performed under Order DE 10402 will not evaluate cleanup action alternatives whose purpose is to achieve 1,4-dioxane cleanup levels in contaminated groundwater west of 4<sup>th</sup> Ave. S. Rather, it is acknowledged that the presence of dioxane in this area is due to the downgradient migration of groundwater contamination from areas east of 4<sup>th</sup> Ave. S. Attainment of 1,4-dioxane groundwater cleanup standards west of 4<sup>th</sup> Ave. S. will therefore be addressed by actions taken under Agreed Order DE 7347.

- 8. Add Exhibit F.** Exhibit F includes copies of PSC’s January 16, 2015, “1,4-dioxane Remediation Approach Focused Feasibility Study;” Ecology’s February 13, 2015, letter, responding to that Technical Memorandum; and, supplemental information and response to comments submitted by PSC on March 16, 2015.

#### **D. SIGNATURE AUTHORITY**

The undersigned representative of PSC and Ecology hereby certify that he or she is fully authorized to enter into this amendment and to execute and legally bind such party to the same.

#### **E. EFFECTIVE DATE**

This First Amendment shall be effective upon execution by PSC and Ecology.

Effective date of this First Amendment: \_\_\_\_\_

**BURLINGTON ENVIRONMENTAL, LLC**

**STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY**

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