



# Washington State Energy Facility Site Evaluation Council AGENDA

**MONTHLY MEETING**  
**Tuesday June 15, 2021**  
**1:30 PM**

**CONFERENCE CALL ONLY**  
Conference number: (253) 372-2181 ID: 662593855#

1. Call to Order ..... Kathleen Drew, EFSEC Chair
2. Roll Call ..... Joan Owens, EFSEC Staff
3. Proposed Agenda ..... Kathleen Drew, EFSEC Chair
4. Minutes  
**Meeting Minutes** ..... Kathleen Drew, EFSEC Chair
  - May 18, 2021 Monthly Meeting Minutes
5. Projects
  - a. Kittitas Valley Wind Project
    - Operational Updates ..... Eric Melbardis, EDP Renewables
  - b. Wild Horse Wind Power Project
    - Operational Updates ..... Jennifer Galbraith, Puget Sound Energy
  - c. Chehalis Generation Facility
    - Operational Updates ..... Mark Miller, Chehalis Generation
  - d. Grays Harbor Energy Center
    - Operational Updates ..... Chris Sherin, Grays Harbor Energy
  - e. Columbia Generating Station
    - Operational Updates ..... Mary Ramos, Energy Northwest
  - f. WNP – 1/4
    - Non-Operational Updates ..... Mary Ramos, Energy Northwest
  - g. Desert Claim
    - Project Updates ..... Amy Moon, EFSEC Staff
  - h. Columbia Solar
    - Project Updates ..... Kyle Overton, EFSEC Staff
    - Plan Review ..... Kyle Overton, EFSEC Staff
    - ISRP ..... Kyle Overton, EFSEC Staff

*The Council may consider and take FINAL ACTION on approving the Initial Site Restoration Plan.*

    - Construction Stormwater General Permit ..... Kyle Overton, EFSEC Staff

*The Council may consider and take FINAL ACTION on issuing the Construction Stormwater General Permit.*
  - i. Goose Prairie Solar
    - Project Updates ..... Kyle Overton, EFSEC Staff
    - SEPA Determination & Expedited Processing Decision ..... Ami Kidder, EFSEC Staff

*EFSEC staff will provide information on the expedited process and the Council may take FINAL ACTION on land use consistency. The Council may also take FINAL ACTION on an expedited processing decision.*
  - j. Horse Heaven Wind Farm
    - Project Updates ..... Amy Moon, EFSEC Staff
6. Adjourn ..... Kathleen Drew, EFSEC Chair

**Note: "FINAL ACTION"** means a collective positive or negative decision, or an actual vote by a majority of the members of a governing body when sitting as a body or entity, upon a motion, proposal, resolution, order, or ordinance. RCW 42.30.020

**Verbatim Transcript of Monthly Council Meeting**  
**Washington State Energy Facility Site Evaluation Council**  
**May 18, 2021**



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## Verbatim Transcript of Monthly Council Meeting - 5/18/2021

<p style="text-align: right;">Page 1</p> <p style="text-align: center;">WASHINGTON STATE ENERGY FACILITY SITE EVALUATION COUNCIL Tuesday, May 18, 2021 1:30 P.M.</p> <p style="text-align: center;">Telephonic Monthly Council Meeting Verbatim Transcript of Proceedings</p> <p>REPORTED BY: TAYLER GARLINGHOUSE, CCR 3358 Buell Realtime Reporting, LLC 1325 Fourth Avenue, Suite 1840 Seattle, Washington 98101 (206) 287-9066   Seattle (360) 534-9066   Olympia (800) 846-6989   National</p> <p>www.buellrealtime.com</p>	<p style="text-align: right;">Page 3</p> <p>1 LACEY, WASHINGTON; MAY 18, 2021 2 1:30 P.M. 3 --o0o-- 4 P R O C E E D I N G S 5 6 CHAIR DREW: Good afternoon. This is 7 Kathleen Drew, Chair of the Facility Site Evaluation 8 Council, and I am calling to order our meeting, our 9 monthly meeting for May 2021. 10 Will the clerk please call the roll? 11 MS. OWENS: Department of Commerce? 12 MS. KELLY: Kate Kelly, present. 13 MS. OWENS: Department of Ecology? 14 Department of Fish &amp; Wildlife? 15 CHAIR DREW: He's excused. 16 MS. OWENS: Department of Natural Resources? 17 MR. YOUNG: Lenny Young, present. 18 MS. OWENS: Utilities and Transportation 19 Commission? 20 MS. BREWSTER: Stacey Brewster, present. 21 MS. OWENS: Local government and optional 22 state agencies, the Goose Prairie Project for WSDOT? 23 MR. SAURIOL: Bill Sauriol, present. 24 MS. OWENS: For the Horse Heaven Project, 25 Department of Agriculture?</p>
<p style="text-align: right;">Page 2</p> <p>1 A P P E A R A N C E S 2 Councilmembers: 3 KATHLEEN DREW, Chair 4 KATE KELLY, Department of Ecology 5 LENNY YOUNG, Department of Natural Resources 6 STACEY BREWSTER, UTC 7 8 Local Government and Optional State Agencies for Goose 9 Prairie: 10 BILL SAURIOL 11 Assistant Attorney General: 12 JON THOMPSON 13 EFSEC Staff: 14 JOAN OWENS 15 AMI KIDDER 16 AMY MOON 17 KYLE OVERTON 18 PATTY BETTS 19 STEPHEN POSNER 20 21 Also in Attendance: 22 ERIC MELBARDIS, Kittitas Valley 23 JENNIFER GALBRAITH, Wild Horse 24 MARK MILLER, Chehalis Generation 25 DEREK SANDISON, Department of Agriculture ED BROST, Benton County JUDGE TOREM MARY RAMOS, Columbia Generating Station BRAD BARFUSS, Columbia Generating Station CHRIS SHERIN, Grays Harbor Energy BILL SHERMAN, Counsel for The Environment BLAKE BJORNSEN, One Energy TIM MCMAHAN, Stoel Rives OWEN HURD, TUUSSO Energy DAVE KOBUS, Scout Clean Energy</p>	<p style="text-align: right;">Page 4</p> <p>1 MR. SANDISON: Yeah, Derek Sandison, 2 present. 3 MS. OWENS: For Benton County? 4 MR. BROST: Ed Brost, present. 5 MS. OWENS: For the Assistant Attorney 6 General? 7 Administrative law judges, John Sull- -- 8 Johnette Sullivan? 9 MR. TOREM: Judge Torem -- this is Judge 10 Torem. I'm on the line. 11 MS. OWENS: Okay. Thank you. 12 For Council Staff, Ami Kidder? 13 MS. KIDDER: This is Ami Kidder, present. 14 MS. OWENS: Amy Moon? 15 MS. MOON: Good afternoon. This is Amy 16 Moon. I'm present. 17 MS. OWENS: Kyle Overton? 18 MR. OVERTON: Kyle Overton, present. 19 MS. OWENS: Patty Betts? 20 MS. BETTS: Patty Betts, present. 21 MS. OWENS: Stew Henderson? 22 Stephen Posner? 23 MR. POSNER: Good afternoon. Stephen 24 Posner, Present. 25 MS. OWENS: For the operational updates,</p>

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<p>1 Kittitas Valley Wind Project?</p> <p>2 MR. MELBARDIS: Eric Melbardis, present.</p> <p>3 MS. OWENS: Wild Horse Wind Power Project?</p> <p>4 MS. GALBRAITH: Jennifer Galbraith, present.</p> <p>5 MS. OWENS: Grays Harbor Energy Center?</p> <p>6 Chehalis Generation Facility?</p> <p>7 MR. MILLER: This is Mark Miller, present.</p> <p>8 MS. OWENS: Columbia Generating Station?</p> <p>9 MS. RAMOS: Mary Ramos, present.</p> <p>10 MR. BARFUSS: Brad Barfuss, present.</p> <p>11 MS. OWENS: Counsel for The Environment?</p> <p>12 MS. SHERMAN: Bill Sherman, present.</p> <p>13 MS. OWENS: Thank you.</p> <p>14 And is our court reporter present?</p> <p>15 MS. GARLINGHOUSE: This is Tayler</p> <p>16 Garlinghouse, present.</p> <p>17 MS. OWENS: Okay. Chair, there is a quorum</p> <p>18 for the regular Council and for the Goose Prairie and</p> <p>19 Horse Heaven Project.</p> <p>20 CHAIR DREW: Thank you.</p> <p>21 Is there anyone else who is on the line who</p> <p>22 would like to introduce themselves at this point?</p> <p>23 MR. DENGEL: This is Rob -- excuse me. This</p> <p>24 is Rob Dengel, Ecology, present.</p> <p>25 CHAIR DREW: Thank you.</p>	<p>1 Clean Energy Horse Heaven Hills Wind Project. The draft</p> <p>2 minutes have been sent to you. Is there a motion to</p> <p>3 approve the March 30, 2021 informational meeting</p> <p>4 minutes?</p> <p>5 MR. DENGEL: Rob Dengel, motion to approve</p> <p>6 the March 30, 2021 Horse Heaven Wind Project</p> <p>7 informational meeting minutes.</p> <p>8 CHAIR DREW: Thank you.</p> <p>9 Second?</p> <p>10 MS. KELLY: Kate Kelly, second.</p> <p>11 CHAIR DREW: Thank you.</p> <p>12 Are there any corrections or discussion</p> <p>13 about the minutes from the informational meeting?</p> <p>14 Hearing none, all those in favor of approving --</p> <p>15 approving the informational meeting minutes for Horse</p> <p>16 Heaven Hills Wind Project March 30, 2021, please say</p> <p>17 "aye."</p> <p>18 COUNCILMEMBERS: Aye.</p> <p>19 CHAIR DREW: Opposed? The meetings are</p> <p>20 approved.</p> <p>21 Moving on to the land use consistency</p> <p>22 hearing Scout Clean Energy Horse Heaven Hills Wind</p> <p>23 Project March 30, 2021 minutes, is there a motion to</p> <p>24 approve the minutes?</p> <p>25 MR. BROST: Ed Brost, I'll move to approve.</p>
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<p>1 MR. THOMPSON: This is Jon Thompson with the</p> <p>2 Attorney General's Office just joining. Thank you.</p> <p>3 MR. BJORNSON: And hi, Chair Drew. Blake</p> <p>4 Bjornson with One Energy Goose Prairie Solar.</p> <p>5 MR. MCMAHAN: Tim McMahan with Stoel Rives</p> <p>6 law firm.</p> <p>7 MR. HURD: Owen Hurd with TUUSSO Energy</p> <p>8 Columbia Solar.</p> <p>9 MR. KOBUS: Dave Kobus with Scout Clean</p> <p>10 Energy Horse Heaven.</p> <p>11 CHAIR DREW: Thank you.</p> <p>12 We will move on to -- may I have a motion to</p> <p>13 adopt the agenda?</p> <p>14 MS. KELLY: Kate Kelly, move to adopt.</p> <p>15 MS. BREWSTER: Stacey Brewster, second.</p> <p>16 CHAIR DREW: Thank you.</p> <p>17 Are there any questions or comments or</p> <p>18 changes? Hearing none, all those in favor of adopting</p> <p>19 the agenda for today, please say "aye."</p> <p>20 COUNCILMEMBERS: Aye.</p> <p>21 CHAIR DREW: Opposed? The agenda's adopted.</p> <p>22 Now we have before us, I believe, three sets</p> <p>23 of minutes, so we will go through them one at a time.</p> <p>24 The first before us is the informational</p> <p>25 meeting that was held on March 30th, 2021, the Scout</p>	<p>1 CHAIR DREW: Thank you.</p> <p>2 THE COURT REPORTER: I'm sorry, this is the</p> <p>3 court reporter. I didn't hear that.</p> <p>4 CHAIR DREW: I believe that was Mr. Brost?</p> <p>5 MR. BROST: Yes.</p> <p>6 THE COURT REPORTER: Thank you.</p> <p>7 CHAIR DREW: Is there a second?</p> <p>8 MR. DENGEL: Motion to second.</p> <p>9 CHAIR DREW: Thank you, Mr. Dengel.</p> <p>10 Is there any -- are there any corrections or</p> <p>11 changes to the minutes for the land use consistency</p> <p>12 hearing from March 30, 2021? Hearing none, all those in</p> <p>13 favor of approving the minutes from the land use</p> <p>14 consistency hearing, please say "aye."</p> <p>15 COUNCILMEMBERS: Aye.</p> <p>16 CHAIR DREW: All those opposed? Minutes are</p> <p>17 approved.</p> <p>18 Moving on to the monthly Council meeting</p> <p>19 minutes from April 20th, 2021. Is there a motion to</p> <p>20 approve the monthly -- April monthly Council meeting</p> <p>21 minutes?</p> <p>22 MR. DENGEL: Rob Dengel, motion to approve</p> <p>23 April 20th monthly meeting minutes.</p> <p>24 CHAIR DREW: Thank you.</p> <p>25 Second?</p>

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<p>1 MS. BREWSTER: Stacey Brewster, second.  2 CHAIR DREW: Thank you.  3 I do have one correction in the Council  4 minutes and that is page 14, line 5. It says wind lands  5 and it should be wetlands.  6 Are there other corrections? Hearing  7 none --  8 MR. KOBUS: Chair Drew, if I could just for  9 a moment. This is Dave Kobus with Scout Clean Energy.  10 CHAIR DREW: Yes?  11 MR. KOBUS: Regarding the Horse Heaven Wind  12 Project, I would suggest that the title be changed to  13 delete hills as hills is not really part of the official  14 name of the project.  15 CHAIR DREW: Okay. And was that in the  16 previous -- where --  17 MR. KOBUS: Yeah, that was -- that was in  18 two previous documents. I just realized that. You were  19 saying hills and it's -- it's not part of the actual  20 name of the project.  21 CHAIR DREW: Is that -- I'm sorry, I said it  22 as that -- as it was written. I don't have it in front  23 of me anymore. Let's see.  24 Maybe you can help me out with this,  25 Ms. Owens.</p>	<p>1 the floor before I went to make that change. The April  2 monthly meeting minutes with one change as previously  3 stated on page 14, line 5, should be wetlands rather  4 than wind lands. With that amendment, all those in  5 favor of approving the minutes from the April 20th, 2021  6 Council meeting, please say "aye."  7 COUNCILMEMBERS: Aye.  8 CHAIR DREW: Opposed? The minutes are  9 approved.  10 Okay. Thank you, everybody. That was a lot  11 to review and to move forward on. So now moving to our  12 project updates. Kittitas Valley Wind Project, is  13 Mr. Melbardis here?  14 MR. MELBARDIS: Yes, I am.  15 CHAIR DREW: Thank you.  16 MR. MELBARDIS: Good afternoon, Chair Drew,  17 EFSEC Council, and Staff. For the record, this is Eric  18 Melbardis with EDP Renewables with the Kittitas Valley  19 Wind Power Project. We had nothing nonroutine to report  20 for the period.  21 CHAIR DREW: Thank you.  22 Moving on to the Wild Horse Wind Power  23 Project, Ms. Galbraith?  24 MS. GALBRAITH: Yes, thank you, Chair Drew,  25 Councilmembers, and Staff. This is Jennifer Galbraith</p>
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<p>1 MS. OWENS: The land use minutes should be  2 on the screen now. Can you see them?  3 CHAIR DREW: Oh, okay. Is it also the same  4 as -- in the --  5 MS. OWENS: It is.  6 CHAIR DREW: Okay. May I have a motion to  7 then go back and change the title of the informational  8 meeting and the land use consistency hearing meeting  9 titles to eliminate the word "hills" in the title and  10 throughout -- I think it's probably just the title -- as  11 it appears throughout the document?  12 MR. BROST: As long as it's just the title,  13 this is Ed Brost, I'll motion to approve.  14 CHAIR DREW: Okay. Thank you.  15 Is there a second?  16 MS. KELLY: Kate Kelly, second.  17 CHAIR DREW: Okay. All those in favor of  18 deleting the word "hills" from the title on the  19 informational meeting minutes and in the land use  20 consistency hearing minutes, all those in favor?  21 COUNCILMEMBERS: Aye.  22 CHAIR DREW: Opposed? Thank you.  23 Okay. Let's take a step back. We were in  24 the middle of the approval of the Council meeting  25 minutes. I apologize. I guess there was a motion on</p>	<p>1 with Puget Sound Energy representing the Wild Horse Wind  2 Facility, and I have nothing nonroutine to report for  3 the month of April.  4 CHAIR DREW: Thank you.  5 Chehalis Generation Facility, Mr. Miller?  6 MR. MILLER: Good afternoon, Chair Drew,  7 EFSEC Council, and Staff. This is Mark Miller, the  8 plant manager representing the PacifiCorp Chehalis  9 Generation Facility. I have one nonroutine note in the  10 submitted report for the month of April.  11 The Chehalis plant conducted an annual  12 relative accuracy test audit of the continuous emission  13 monitors during the last week of April. The preliminary  14 results were within compliance requirements, and a draft  15 report is currently being reviewed by PacifiCorp  16 corporate environmental staff and it will be submitted  17 to EFSEC Staff this month, the month of May.  18 CHAIR DREW: Thank you.  19 Grays Harbor Energy Center, Mr. Sherin?  20 MR. SHERIN: Good afternoon -- good  21 afternoon, Chair Drew, Councilmembers, and Staff. This  22 is -- this is Chris Sherin, plant manager with Grays  23 Harbor Energy Center. Nonroutine items for the month of  24 April, I'll point out that we did begin our annual  25 maintenance outage on April 15th conducting major</p>

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<p>1 inspections on the gas turbine, the (unintelligible)  2 turbine, and also the -- we're undergoing the  3 implementation of the installation of the AGP on -- on  4 the gas turbines.  5 Under environment compliance, one -- I need  6 to make one correction on the first bullet. I need to  7 remove the word "emission," because as I'll point out in  8 nonroutine -- for nonroutine items, Grays Harbor  9 submitted a letter notifying EFSEC Staff of an emissions  10 event on April 8th. The event was a technical violation  11 of the Air Operating Permit, but no environmental limits  12 were exceeded. So we're currently working with ORCAA  13 and EFSEC Staff to tell us what the next step with the  14 event is.  15 Also for nonroutine items, I'll point out  16 that we're in the process of updating our CO2 mitigation  17 planned annual payments for the site certification  18 amendment agreement. Because due to the installation of  19 AGP, it necessitated a change to the annual payments  20 that we make to the Climate Trust, and that plan has  21 been submitted to EFSEC Staff.  22 That's all I have unless there's any  23 questions.  24 CHAIR DREW: Thank you.  25 Are there any questions?</p>	<p>1 EFSEC Staff continue to coordinate with Desert Claim;  2 however, currently there are no other project updates.  3 CHAIR DREW: Okay. Thank you.  4 Moving on to the Columbia Solar Project.  5 Mr. Overton.  6 MR. OVERTON: Yes, this is Kyle Overton, the  7 EFSEC site specialist overseeing the Columbia Solar  8 Project. I have two items today for Columbia Solar.  9 The first being that EFSEC Staff, we  10 continue to coordinate with the facility and our  11 contractors on preconstruction plan review. This  12 includes review and coordination on the initial site  13 restoration plan, or the ISRP, as required by Washington  14 Administrative Code or WAC 463-72-040 and their site  15 certification agreements. EFSEC Staff are working with  16 the certificate holder to finalize these ISRPs and after  17 which they will be presented to the Council for their  18 approval.  19 Is there any questions on that part?  20 CHAIR DREW: My question would be, you were  21 working on that now, do you expect that you will have it  22 to the Council before the June meeting so that  23 Councilmembers can review it and then we'll have an  24 opportunity to discuss it at the June meeting?  25 MR. OVERTON: That's our goal. We're --</p>
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<p>1 I don't hear any. Thank you, Mr. Sherin.  2 Moving on to the Columbia Generating Station  3 and WNP-1/4, Ms. Ramos.  4 MS. RAMOS: Good afternoon, Chair Drew,  5 EFSEC Councilmembers, and Staff. This is Mary Ramos  6 reporting for Energy Northwest. For the month of April,  7 I have two items to report.  8 The first one is Energy Northwest requested  9 and received approval to operate on nonroad engines with  10 a cumulative size greater than 2,000 horsepower on site.  11 And the nonroad engines are being utilized to support  12 Columbia's R-25 refueling and maintenance outage.  13 The second item I have to report is the  14 Amendment 1 for EFSEC Resolution 347 was issued on April  15 23. This resolution authorizes fish -- fish collection  16 for the Columbia Generating Station Radiological  17 Environmental Monitoring Program.  18 That's all I have.  19 CHAIR DREW: Thank you.  20 Are there any questions?  21 Hearing none, we will be moving on to the  22 Desert Claim Wind Power Project. Ms. Moon?  23 MS. MOON: Good afternoon, Council Chair  24 Drew and Councilmembers. For the record, this is Amy  25 Moon providing an update on the Desert Claim Project.</p>	<p>1 we're very close to getting a final product. There's  2 just a few items to work out. So that's our current  3 goal, yes, have it ready for June 15th meeting.  4 CHAIR DREW: Okay. Thank you.  5 Any other questions?  6 Okay. Go ahead.  7 MR. OVERTON: All right. So my next item  8 here, you know, Staff are also continuing to work with  9 the certificate holder on issuing permits required prior  10 to construction. I noticed intent for each of the three  11 facilities to be covered under general construction  12 stormwater permits for the three sites were submitted by  13 the certificate holder on April 28th.  14 In accordance with WAC 463-76-041, a 30-day  15 public comment period is required prior to issuing these  16 permits. The public comment period is scheduled to  17 start on May 19th and will continue on June -- or  18 conclude on June 18th. Notice has been distributed to  19 our mailing lists and posted in the Daily Record paper  20 in Ellensburg, Washington. Comments will be accepted in  21 writing via email and via our online comment database,  22 which can be found on the EFSEC website.  23 Are there any questions for that?  24 CHAIR DREW: Are there any questions from  25 Councilmembers?</p>

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<p>1 I don't see anyone raising questions. Thank 2 you. 3 MR. OVERTON: Yep, thank you. 4 CHAIR DREW: Oh, Goose Prairie Solar 5 Project, Mr. Overton. 6 MR. OVERTON: Yeah, this is Kyle Overton 7 again, the EFSEC site specialist for Goose Prairie. Two 8 items here also. 9 The Staff continue to coordinate with the 10 applicant and our contractors on review of their 11 application materials, and a site visit was conducted on 12 May 4th with representatives from One Energy, Department 13 of Ecology, and WFW present. The purpose of the site 14 visit was to conduct the wetland screening and to aid 15 the ongoing wildlife and habitat impact review for the 16 State Environmental Policy Act or SEPA. That was a 17 general update on the current status of the project 18 there. 19 The next item, WAC 463-43-050 requires that 20 a SEPA determination is needed prior to making a 21 decision regarding the applicant's request for expedited 22 processing. WAC 463-43-050 also requires a decision on 23 expedited processing 120 days after receipt of their 24 request or such time later as is mutually agreed by the 25 applicants and Council.</p>	<p>1 applicant and by our Staff, but that is for your 2 information, that 120 days, the consideration for 3 expedited processing will be extended to July 15th. Any 4 questions from Councilmembers? 5 MS. KIDDER: Chair Drew, if I could -- 6 CHAIR DREW: Yes, Ms. Kidder? 7 MS. KIDDER: -- make a quick comment. This 8 is Ami Kidder for the record. The language in WAC 9 463-43-050 does say within 120 days of receipt of 10 application or such time -- such later time as is 11 mutually agreed upon by the applicant and the Council. 12 As previously mentioned, Staff does recommend agreement 13 with this request, and previously the Council has taken 14 votes on this request, although it is not explicitly 15 required to be voted on. But we would like to make sure 16 that the Council has no concerns with approving this. 17 CHAIR DREW: Thank you, Ms. Kidder. 18 Are there any concerns with approving this 19 extension? 20 Okay. Sounds like this is agreed upon by 21 the Council since we have no -- no disagreements on 22 that. 23 MS. KIDDER: Thank you, Chair Drew. 24 CHAIR DREW: Moving on to the Horse Heaven 25 Wind Project, Ms. Moon.</p>
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<p>1 EFSEC received the request for expedited 2 processing on January 21st making May 21st the 120-day 3 mark. On May 14th, EFSEC received requests from One 4 Energy with the support of EFSEC Staff to extend the 5 expedited processing determination deadline to the 6 completion of the SEPA review and issuance of 7 determination. One Energy is requesting the deadline be 8 extended to the date of the July Council meeting and a 9 copy of this request letter is included in the Council 10 packets. 11 Are there any questions? 12 CHAIR DREW: Are there any questions from 13 Councilmembers? 14 MS. MOON: Chair Drew? 15 CHAIR DREW: Yes? 16 MS. MOON: This is Amy Moon. I had to step 17 away real quick. So did I miss my Horse Heaven Wind 18 Project update? 19 CHAIR DREW: No, we're still on Goose 20 Prairie. 21 MS. MOON: Great. Thank you. 22 CHAIR DREW: So there before you on the 23 screen is the letter from One Energy requesting the 24 extension. As I understand it, this doesn't require 25 Council action since this is agreed to both by the</p>	<p>1 MS. MOON: Okay. Thank you, Chair Drew. 2 Good afternoon, Council Chair Drew and Councilmembers. 3 For the record, this is Amy Moon providing an update on 4 Horse Heaven Wind Project. EFSEC issued a State 5 Environmental Policy Act, otherwise known as SEPA, 6 determination of significance and request for comments 7 of scope of environmental impact statement, which is an 8 EIS, for the Horse Heaven Wind Project on May 11th. The 9 notice stated that an EIS will be prepared and 10 identified wildlife habitat, visual aesthetics, and land 11 use as environmental elements that require a detailed 12 analysis. 13 In addition, the notice stated that 14 additional information is required before the -- before 15 determining the level of analysis in the EIS for air, 16 water, and water includes wetlands, water quality, and 17 water resources, plants, energy and natural resources, 18 environmental health, noise, light and glare, historical 19 resources, and cultural resources. 20 The EIS will at a minimum include a no 21 action alternative and the applicant's proposal. EFSEC 22 will determine the full scope of the EIS including the 23 range of alternatives to be analyzed at the end of the 24 scoping period after comments are reviewed. A public 25 comment period for the scoping is open until June 10th,</p>

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1 which allows for a 30-day comment period from the date  
2 of posting, which was May 11th.

3 And on May 10th, EFSEC Staff, an Ecology  
4 wetland scientist, and the applicant met at the project  
5 site for a wetland site visit. We visited several  
6 locations that had been identified during a desktop  
7 published resource review as potential wetlands and no  
8 wetlands were found.

9 Does the Council have any questions?

10 CHAIR DREW: So, again, the scoping notice  
11 has been sent to everyone on our list and is also on our  
12 website if people would like to take a look at that and  
13 how to respond; is that correct?

14 MS. MOON: Correct.

15 CHAIR DREW: Okay. Are there questions from  
16 Councilmembers?

17 Okay. I don't hear any. Thank you. We  
18 look forward to information following this scoping  
19 period.

20 And at this point, that concludes our  
21 agenda. So this meeting is adjourned and our next  
22 meeting will be -- and of course I did not put the date  
23 in front of me -- third Tuesday of June. We will talk  
24 to you all and expect additional information  
25 particularly on the Columbia Solar Project at a minimum

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1 before that if we -- if we can get that to you. Thank  
2 you. We are adjourned.

3 (Adjourned at 1:57 p.m.)  
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## C E R T I F I C A T E

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3 STATE OF WASHINGTON  
4 COUNTY OF THURSTON

5  
6 I, Tayler Garlinghouse, a Certified Shorthand  
7 Reporter in and for the State of Washington, do hereby  
8 certify that the foregoing transcript is true and  
9 accurate to the best of my knowledge, skill and ability.

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13 Tayler Garlinghouse, CCR 3358  
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## EFSEC Monthly Council Meeting – Facility Update Format

Facility Name: Kittitas Valley Wind Power Project

Operator: EDP Renewables

Report Date: June 1

Reporting Period: May 2021

Site Contact: Eric Melbardis, Sr Operations Manager

Facility SCA Status: Operational

### Operations & Maintenance (only applicable for operating facilities)

- Power generated: 38,540 MWh
  - Wind speed: 9 m/s
  - Capacity Factor: 50.7%
- 

### Environmental Compliance

- No incidents

### Safety Compliance

- Nothing to report

### Current or Upcoming Projects

- Nothing to report

### Other

- No sound complaints
- No shadow flicker complaints

## EFSEC Monthly Council Meeting – Facility Update

**Facility Name:** Wild Horse Wind Facility  
**Operator:** Puget Sound Energy  
**Report Date:** June 3, 2021  
**Report Period:** May 2021  
**Site Contact:** Jennifer Galbraith  
**SCA Status:** Operational

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### Operations & Maintenance

May generation totaled 67,556 MWh for an average capacity factor of 33.31%.

### Environmental Compliance

Nothing to report.

### Safety Compliance

- No lost-time accidents or safety injuries/illnesses.
- Kittitas County Fire Marshall conducted the annual Fire Life and Safety Inspection on 5/24/21. A couple of minor items were identified and were either resolved during the inspection or are in the process of being resolved (see inspection report attached).

### Current or Upcoming Projects

Nothing to report.

### Other

Nothing to report.



# FIRE LIFE AND SAFETY INSPECTION RESULTS

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**Account Name:** WILD HORSE WIND FACILITY

**Account #** FI-09-00117

25901 VANTAGE HWY ELLENSBURG, WA 98926  
Identified as PSE WILDHORSE WIND & SOLAR  
FACILITY

**Parcel #** 480936

Inspector	Inspection Type	Inspection Date	Status	Comments
Pat Nicholson	FLS - ANNUAL	05/24/2021	VIOLATIONS NOTED	
Group	Task Description	Status	Comments	
	Post occupant load signage in assembly areas.	NO VIOLATION		
	Post evacuation plan for structure in a conspicuous location..	NO VIOLATION		
	Other violation	NO VIOLATION		
	Install, repair, or replace smoke and carbon monoxide detectors. Required in all sleeping areas.	NO VIOLATION		
	Other violation	NO VIOLATION		
	Other violation	NO VIOLATION		
	Other violation	NO VIOLATION		
A. EXTERIOR ASSESSMENT	Building number not posted	NO VIOLATION		
	Obstructed FDC	NO VIOLATION		
	Obstructed fire hydrant	NO VIOLATION		
	Gas meter protection	NO VIOLATION		
	Storage proximity	NO VIOLATION		
	Storage under eaves	NO VIOLATION		
	Key Boxes	NO VIOLATION		
B. EXITS	Exit travel	NO VIOLATION		
	Exits obstructed	NO VIOLATION		



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Group	Task Description	Status	Comments
<b>B. EXITS</b>	<b><i>Panic hardware</i></b>	NO VIOLATION	
	<b><i>Number of exits</i></b>	NO VIOLATION	
	<b><i>Unapproved locking devices</i></b>	NO VIOLATION	
<b>C. EXIT LIGHTING AND SIGNS</b>	<b><i>Exit signs battery backup</i></b>	NO VIOLATION	
	<b><i>Exit signs required</i></b>	NO VIOLATION	
	<b><i>Exit sign burnt out</i></b>	NO VIOLATION	
	<b><i>Emergency lighting</i></b>	FOLLOW-UP NOT REQUIRED	1 fixture in comm. room did not illuminate on AC power loss. Fire pump building does not have an emergency lighting fixture. Staff advises this building is on emergency power supplied by auto start generator - if confirmed, fixture not required.
	Code References :	IFC 1006.3	
		Maintain emergency lighting (replace burned out bulbs and/or dead batteries).	
		IFC 1008.3.3	
		Rooms and spaces. In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas: 1. Electrical equipment rooms. 2. Fire command centers. 3. Fire pump rooms. 4. Generator rooms. 5. Public restrooms with an area greater than 300 square feet (27.87 m2).	
	<b><i>"to remain unlocked" sign</i></b>	NO VIOLATION	
<b>D. EXTINGUISHERS</b>	<b><i>Class K extinguisher</i></b>	NO VIOLATION	
	<b><i>Number of extinguishers</i></b>	NO VIOLATION	
	<b><i>Extinguisher placement</i></b>	NO VIOLATION	
	<b><i>Extinguisher obstructed</i></b>	NO VIOLATION	



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Group	Task Description	Status	Comments
<b>D. EXTINGUISHERS</b>	<i>Extinguisher maintenance</i>	NO VIOLATION	
	<i>Signs indicating location</i>	NO VIOLATION	
	<i>Minimum extinguisher size. Minimum 2A/10BC required.</i>	NO VIOLATION	
<b>E. FIRE ALARM SYSTEM</b>	<i>Alarm Service Report</i>	NO VIOLATION	
	<i>Alarm Maintenance</i>	NO VIOLATION	
	<i>Devices obstructed</i>	NO VIOLATION	
<b>F. FLAMMABLE / COMBUSTIBLE LIQUIDS</b>	<i>Storage cabinet</i>	NO VIOLATION	
	<i>Improper housekeeping</i>	NO VIOLATION	
	<i>No storage area</i>	NO VIOLATION	
	<i>Close to heating appliance</i>	NO VIOLATION	
	<i>Fueled equipment</i>	NO VIOLATION	
	<i>Oily rags</i>	NO VIOLATION	
	<i>Compressed gas tanks</i>	NO VIOLATION	
	<i>Equipment rooms</i>	NO VIOLATION	
	<i>Flammable liquids spill containment</i>	NO VIOLATION	
<b>G. ELECTRICAL</b>	<i>Extension cord usage</i>	NO VIOLATION	An extension cord was located in an office - resolved during inspection.
	Code References : IFC 605.5		
		Extension cords and flexible cords shall not be a substitute for permanent wiring. Extension cords shall be used only with portable appliances.	
	<i>Electrical panel labeling</i>	NO VIOLATION	
	<i>Portable heaters</i>	NO VIOLATION	
	<i>Improper power strip usage</i>	NO VIOLATION	
	<i>Panel obstructed</i>	NO VIOLATION	
	<i>No cover plate</i>	NO VIOLATION	



# FIRE LIFE AND SAFETY INSPECTION RESULTS

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Group	Task Description	Status	Comments
<b>G. ELECTRICAL</b>	<i>Multi-plug adapter</i>	NO VIOLATION	
<b>H. FIRE WALLS AND DOORS</b>	<i>Restrained fire door</i>	NO VIOLATION	
	<i>Breached wall or ceiling</i>	NO VIOLATION	
	<i>Fire assembly needs repair</i>	NO VIOLATION	
<b>I. KITCHEN SUPPRESSION</b>	<i>Cleaning of hood and duct</i>	NO VIOLATION	
	<i>Six month service needed</i>	NO VIOLATION	
	<i>Illegal cooking operation</i>	FOLLOW-UP NOT REQUIRED	There is a domestic range and stovetop in the kitchen of the visitor center but there is no hood over the cooktop protecting cabinets. Install a domestic kitchen hood. A type II domestic hood is acceptable for this application.
	Code References :	IFC 609.2	
		A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors.	
<b>J. AUTOMATIC SPRINKLER</b>	<i>Annual service needed</i>	NO VIOLATION	
	<i>FDC cap needed</i>	NO VIOLATION	
	<i>Sprinkler clearance</i>	NO VIOLATION	Storage too close to ceiling in storage room off of work bay, resolved during inspection.
	Code References :	IFC 315.3.1	
		Storage height shall be lowered so that it is no closer than 18 inches below sprinkler heads or 2 feet below ceiling of non-sprinklered rooms.	
	<i>Provide sprinkler protection</i>	NO VIOLATION	
	<i>Damaged/Painted heads</i>	NO VIOLATION	
	<i>Spare heads and/or wrench</i>	NO VIOLATION	





# FIRE LIFE AND SAFETY INSPECTION RESULTS

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Group	Task Description	Status	Comments
<b>J. AUTOMATIC SPRINKLER</b>	<i>Hanging material</i>	NO VIOLATION	
	<i>Fire-flow water storage tank or reservoir. Tank level, condition, free of debris, flow test currency.</i>	NO VIOLATION	
<b>K. FUEL DISPENSING</b>	<i>Fire extinguisher</i>	NO VIOLATION	
	<i>Emergency shutoff</i>	NO VIOLATION	
	<i>Provide signage</i>	NO VIOLATION	
	<i>Replace hoses</i>	NO VIOLATION	
<b>L. HOTEL / APARTMENTS</b>	<i>Evacuation routes</i>	NO VIOLATION	
	<i>Fire alarm system</i>	NO VIOLATION	
	<i>Smoke detectors</i>	NO VIOLATION	
<b>X. NO APPARENT VIOLATIONS</b>	<i>No Apparent Violations</i>	NO VIOLATION	

## EFSEC Monthly Council Meeting – Facility Update

Facility Name: Chehalis Generation Facility  
Operator: PacifiCorp  
Report Date: June 7, 2021  
Reporting Period: May 2021  
Site Contact: Mark A. Miller, Plant Manager  
Facility SCA Status: Operational

### Operations & Maintenance

-Relevant energy generation information, such as wind speed, number of windy or sunny days, gas line supply updates, etc.

- 85,513 MW-hrs generated in May for year-to-date generation of 920,215 MW-hrs and a capacity factor of 50.76%.

---

**The following information must be reported to the Council if applicable to the facility:**

### Environmental Compliance

-Permit status if any changes.

- No changes.

-Update on progress or completion of any mitigation measures identified.

- No issues or updates.

-Any EFSEC-related inspections that occurred.

- None.

-Any EFSEC-related complaints or violations that occurred.

- None.

-Brief list of reports submitted to EFSEC during the monthly reporting period.

- The Chehalis plant conducted an annual Relative Accuracy Test Audit of the continuous emission monitors during the last week of April. Our stack sampling contractor and our corporate environmental engineers believed that the results for Volatile Organic Carbon components were suspect. We believe that there may have been a laboratory quality assurance issue. We re-mobilized the stack sampling contractor to pull new samples for a repeat lab analysis at a different laboratory. The draft report will be submitted to EFSEC staff in early June 2021 and the final report by the end of June per the compliance requirement.

### Safety Compliance

-Safety training or improvements that relate to SCA conditions.

- Zero injuries this reporting period and a total of 2,131 days without a Lost Time Accident.

### Current or Upcoming Projects

-Planned site improvements.

- No planned changes.

- Title V Air Operating Permit Complete Renewal Package submitted on December 23, 2020. Title V AOP expires December 29, 2021.

-Additional mitigation improvements or milestones.

- No issues or updates.

**Other**

-Current events of note (e.g., Covid response updates, seasonal concerns due to inclement weather, etc.).

- Nothing to report.

-Personnel changes as they may relate to EFSEC facility contacts (e.g., introducing a new staff member who may provide facility updates to the Council).

- The Environmental Analyst for the Chehalis plant position is open and has been posted for re-fill. We are currently reviewing applications for this position.

-Public outreach of interest (e.g., schools, public, facility outreach).

- Nothing to report.

Respectfully,



Mark A. Miller P75451  
Manger, Gas Plant  
Chehalis Generation Facility

### EFSEC Monthly Council Meeting – Facility Update

Facility Name: Grays Harbor Energy Center

Operator: Grays Harbor Energy LLC

Report Date: June 15, 2021

Reporting Period: May 2021

Site Contact: Chris Sherin

Facility SCA Status: Operational

#### Operations & Maintenance

-GHEC generated 0MWh during the month and 1,046,539MWh YTD.

-GHEC Annual Maintenance Outage began on April 15<sup>th</sup>. Major Inspections and AGP installations will be performed on the units.

---

**The following information must be reported to the Council if applicable to the facility:**

#### Environmental Compliance

-There were no emission, outfall, or storm water deviations, during the month.

-Routine monthly and quarterly reporting to EFSEC

- Monthly Outfall Discharge Monitor Report (DMR)

-

#### Safety Compliance

-None.

#### Current or Upcoming Projects

-None.

#### Other

-Ongoing COVID-19 mitigation efforts at the site.

## EFSEC Monthly Council Meeting – May 2021

Facility Name: **Columbia Generating Station and Washington Nuclear Project 1 and 4 (WNP-1/4)**

Operator: **Energy Northwest**

Report Date: **June 3, 2021**

Reporting Period: **May 2021**

Site Contact: **Mary Ramos**

Facility SCA Status: (Pre-construction/Construction/Operational/Decommission): **Operational**

CGS Net Electrical Generation for May 2021: **150,615 MW-Hrs**

---

### **Environmental Compliance**

On 4/23/21, EFSEC responded to Energy Northwest's comment addressing federal preemption of Washington State's authority to regulate Columbia Generating Station (CGS) radioactive air emissions. On 5/26/21, Energy Northwest submitted a response and requested a meeting with EFSEC to discuss next steps for further coordination with EFSEC and DOH.

### **Current or Upcoming Projects**

On 5/8/2021, Energy Northwest began its R-25 refueling and maintenance outage, which has a target duration of 35 days.

### **Other**

N/A

# Desert Claim Wind Power Project

June 2021 project update

[Place holder]



# Columbia Solar Project

June 2021 project update

[Place holder]

The logo for SWCA (Soil Water Conservation Agency) is positioned vertically on the left side of the page. It consists of the letters 'S', 'W', 'C', and 'A' in a large, stylized, light blue font. The letters are stacked vertically, with the 'S' at the bottom and the 'A' at the top. The background of the entire page is a solid blue color.

# Columbia Solar Projects, Camas Solar Project Initial Site Restoration Plan

MAY 2021

PREPARED FOR

**TE – Columbia Solar, LLC**

PREPARED BY

**SWCA Environmental Consultants**



# **COLUMBIA SOLAR PROJECTS, CAMAS SOLAR PROJECT INITIAL SITE RESTORATION PLAN**

Prepared for

**TE – Columbia Solar, LLC**  
500 Yale Avenue North  
Seattle, Washington 98109

**SWCA Environmental Consultants**  
1220 SW Morrison Street, Suite 700  
Portland, Oregon 97205  
[www.swca.com](http://www.swca.com)

SWCA Project No. 60978

May 2021



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- Appendix B. Cost Estimate of Site Restoration Costs
- Appendix C. Pre-Construction Vegetation Photographs



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# **1 INTRODUCTION**

TE – Columbia Solar, LLC (TE – Columbia Solar), a subsidiary of TUUSSO Energy LLC, will construct, own and operate a 5-MW alternating current (AC) solar photovoltaic (PV) power generation facility and associated electrical interconnection facilities (Camas Solar Project), one of three Columbia Solar Projects. The Camas Solar Project is located on approximately 45 acres of privately owned agricultural land located in rural Kittitas County in central Washington .

The project would connect into the existing Puget Sound Energy (PSE) distribution transmission line along Tjossem Road. The Camas Solar Project will be located approximately 2.25 miles southeast of the Ellensburg city center, in Sections 18 and 19, Township 17 North, Range 19 East, Willamette Meridian (Figure 1). The project site is within the Upper Yakima subbasin and Water Resources Inventory Area (WRIA 39; Hydrologic Unit Code 17030001). The project would provide up to 5 MW of solar energy to PSE for use within its service area. Construction will begin in Spring 2021.

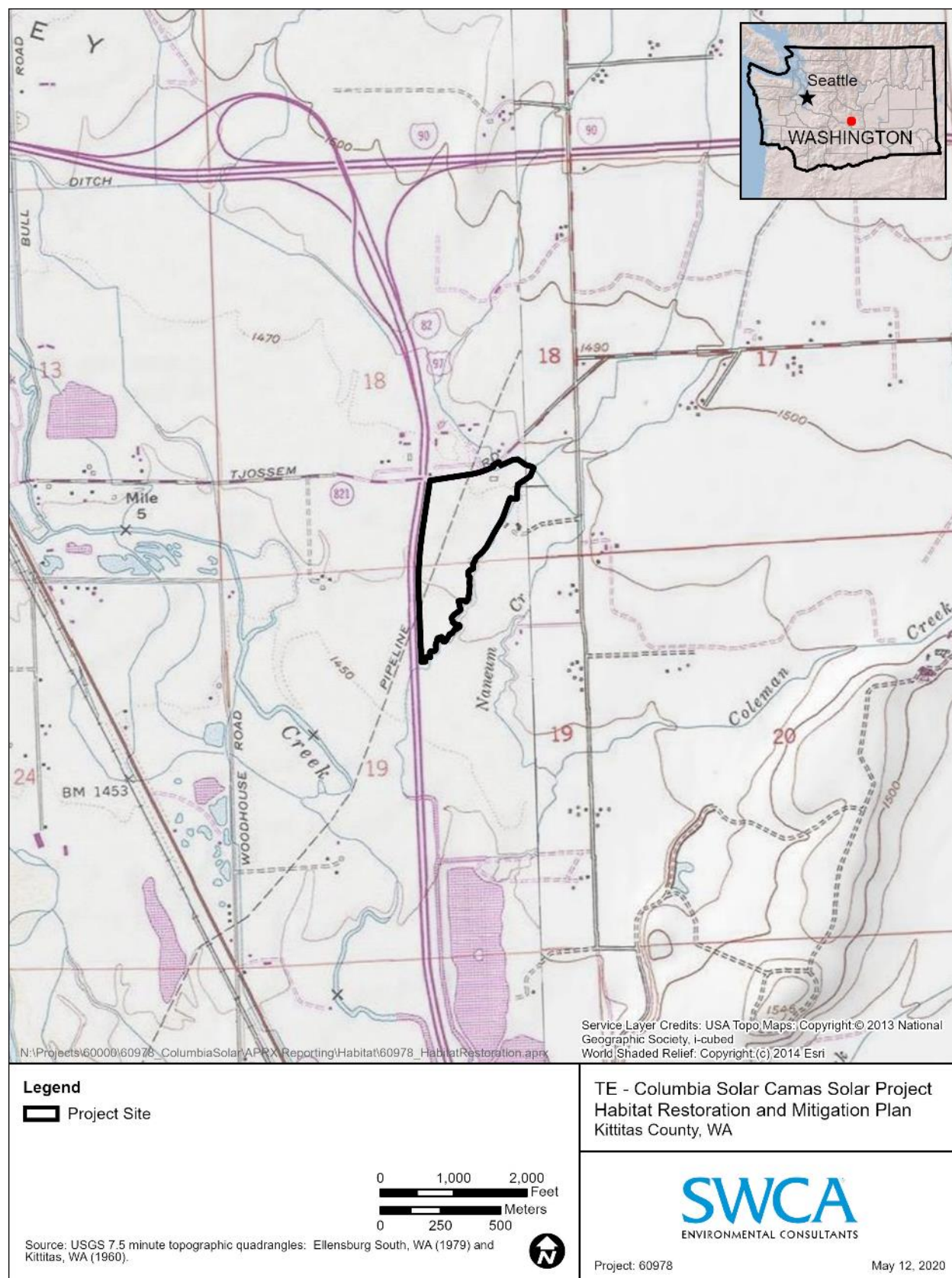


Figure 1. Camas Solar Project location.

## **1.1 Purpose of Plan**

The purpose of this initial site restoration plan (ISRP) is to identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated by the TE – Columbia Solar in compliance with Article IV Part D of the Site Certification Agreement (SCA). This ISRP describes the process used to evaluate the options and select the measures that will be taken to restore or preserve the site location or otherwise protect the public against risks or danger resulting from the site. The plan includes a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk and addresses provisions for funding or bonding arrangements to meet the site location restoration or management costs.

## **2 PROJECT COMPONENTS**

The project's components subject to decommissioning include the equipment summarized below. These components are discussed in detail in the Mitigated Determination of Non-Significance (MDNS) for the project. The decommissioning activities associated with these components are discussed in Section 3.0 of this ISRP.

### **2.1 Site Construction Preparation**

Construction facilities will be located at the project site. Facilities will include the construction entrance/exit, all-weather access roads, and parking and staging areas for vehicle and equipment storage and maintenance. Laydown areas will be used for pre-assembly of components and materials storage/staging. The project site will also include areas for construction worker parking. Temporary construction offices will be installed on-site using modular trailers.

All-weather access roads will be built for access to inverter pads via new gates at the access points shown in the site plans.

Site access driveways and gates will remain in place for the operational phase of the project.

### **2.2 Well Water**

No well water will be obtained or used for the project. Dust control water for construction, fire protection water, and water for panel washing and for watering vegetation on-site will be obtained from water trucks bringing in off-site water or through the landowners' existing water rights on the project site.

### **2.3 Photovoltaic Equipment**

The PV equipment for the project will consist of approximately 50,000 PV panels mechanically fastened on steel support structures and driven by single axis trackers. The steel support structures will be supported on galvanized steel posts that will be driven into the ground. The tracker motors will be supported on cast-in-place foundations.

The construction methods for the preparation of the site and the installation of the panels shall be consistent with all approved SCA conditions for the project site. Should a discrepancy exist between the SCA for the project and the installation methods outlined below, the SCA shall govern.

Grading shall be limited mainly to the all-weather access roads, tanks, inverter pads, project switchyards, or other areas consistent with the approved exhibit map/grading plan. Per Article V.E.1, work within the area where the solar panels are proposed shall be conducted with minimal disturbance, and the operator shall take all necessary precautions to not use vehicles or machineries for grading or alter the existing grade in these areas.

When vehicles or machinery are deemed necessary for solar field installation work, appropriate ground-protection practices (such as construction mats, stabilizers, or established vegetation) shall be used for both dust suppression and to ensure that the vehicles or machineries are compatible with continued and future vegetation growth to the satisfaction of Energy Facility Site Evaluation Council (EFSEC). Any grading, disking, and scraping for access roads, walkways, required basins and/or berms shall be permanently stabilized with an earth-stabilizing product.

Contrary to conventional power plant design where the site has to be prepared to meet a set of pre-engineered contours, the construction approach will be to use existing contours where possible without significantly altering grades on the project site.

A light-on-land philosophy will be used for the grading and installation of the project. Several features of this philosophy are as follows:

- Preservation of property: Temporary fencing will be used to protect areas not to be disturbed.
- Existing improvements, properties, utilities, facilities, trees, and plants that are not to be removed will be protected from injury or damage. Construction materials and equipment will not be placed within the drip line of trees if any are encountered. Damaged trees, if any, will be replaced.
- Temporary staging areas will be used within the solar fields, and they will ultimately be built over with solar arrays. The areas will be seeded after construction is completed.
- Limited all-weather access roads through the solar fields will be constructed by compacting existing soil. Minimal fill will be used only when necessary.

## **2.4 Substation**

The project will be connected to an existing substation located off-site. The project will include on-site switchgear and protection and will be connected to an existing utility distribution line.

## **2.5 Internal Power Collection System**

The PV modules will convert sunlight into direct current (DC) electricity. The PV-generated DC power will be collected from each of the multiple rows of PV modules, from which it will be connected to multiple combiner boxes and ultimately to skids each containing multiple inverters and a distribution voltage transformer. The inverters will convert the DC power to AC power, which will then flow to the transformer that will increase the AC power voltage to 12.47 kV. Multiple transformers from multiple skids will be connected in parallel to on-site switchgear and protection equipment. The power will then be delivered to the existing aboveground PSE distribution lines.

## **2.6 Roads**

Access to the project site will be from public rights-of-way and private access roads. Access permits will be required when connecting to a county-owned rights-of-way. Construction of those access points will be in compliance with state and/or county requirements.

## **2.7 Vegetation During Operations**

Perimeter vegetation will be planted per the site plan and watered as required. Vegetation under the solar panels will be managed as per the SCA and other safety and operational requirements.

# **3 PROJECT DECOMMISSIONING AND RECYCLING**

The activities involved in the facility closure will depend on the expected future use of the project site. At the time of decommissioning, in addition to this ISRP, a detailed removal work plan and schedule and a site restoration plan, shall be filed with EFSEC as a discretionary site plan review, for review and approval by EFSEC. The removal work plan and schedule will describe the proposed equipment that will be removed and an associated schedule for such removal based on expected future uses of the project site. The currently envisaged plan involves completion of the decommissioning, excluding establishment of revegetation, in a 6-month period.

In general, decommissioning will attempt to maximize the recycling of all facility components. Specific opportunities for recycling (e.g., PV solar panels) are discussed below in the context of various site components. The individual project components to be decommissioned will be recycled to the maximum extent practical.

The key project components affected by decommissioning activities are discussed below. The general decommissioning approach will be the same whether a portion, or all of the project is decommissioned.

## **3.1 Evaluation Process**

When considering decommissioning of the project, the best option will be determined by comparing the estimated costs to refurbish or repower, the projected revenue from continued operations, and the potential risks to the public from either decommissioning, refurbishing, or repowering. While PV modules are not considered more hazardous than standard construction materials, any hazardous materials found in the components used to construct PV modules may pose a risk to humans and the environment if left in a state of disrepair or not disposed of correctly. Both refurbishing and repowering can cost almost as much as installing a new system, will require some disposal of hazardous materials, and may not be the best option if the project cannot be readily repaired or updated. If it does not make economic sense to repair or refurbish a project, decommissioning following industry best practices for correct recycling and disposal of materials could be the best option. Recycling and disposal procedures are described for each project component in Section 3.4, Decommissioning Plan.

Upon decommissioning, the Certificate Holder is required by the SCA to remove all project facilities and re-seed disturbed areas. Once facilities are removed, the decision on how to best recycle or dispose of materials will be based on which process poses the least risk to human health. Restoration activities will return the project site to a land use consistent with the surrounding land uses at the time of decommissioning.



The Certificate Holder will implement financial security instruments in the full anticipated amount of costs required to decommission the project, remove facilities and perform restoration activities. See Section 4 below and Appendix B.

## **3.2 Site Restoration Timing and Scope**

### **3.2.1 *Timing***

Per Article VIII.C.1, the Certificate Holder is required to begin decommissioning of the project within 12 months following project termination. Project termination can be triggered directly by the Certificate Holder, or if the Certificate Holder is required to terminate the project according to the requirements of Article VIII.B of the SCA. This plan assumes that decommissioning and restoration activities would occur at the end of the useful life of the project, but all activities outlined herein would be the same if required prior to that time or if the site was suspended or terminated during construction, as required in Article III.B.4.

The SCA allows the period to perform the decommissioning to be extended if there is a delay caused by conditions beyond the control of the Certificate Holder including, but not limited to, inclement weather conditions, equipment failure, wildlife considerations, or the availability of cranes or equipment to support decommissioning.

### **3.2.2 *Scope***

As required by Article VIII.C.2 of the SCA, decommissioning the project shall involve removal of the solar panels and mounting structures; removal of foundations or other site facilities to a depth of 4 feet below grade; restoration of any disturbed soil to preconstruction condition; and removal of project access roads and overhead poles and transmission lines (except for any roads and/or overhead infrastructure that the site location landowner wishes to retain) (all of which shall comprise *site restoration*). Removing the solar panels will be the first priority of site restoration and performing the remaining elements will occur immediately thereafter. If the Certificate Holder constructs the site with solar panels incorporating hazardous materials, such as cadmium telluride, site restoration shall also include the use of appropriate precautions during decommissioning and removal of the solar panels to safely dispose of, avoid, and, if necessary, remediate any soil contamination resulting from the hazardous materials as outlined in Article IV.D.7. Prior to the initiation of project decommissioning an on-site audit will be performed to identify and determine the appropriate method for disposing of hazardous materials (if any) present on the site. Location and remediation of hazardous contamination (if any) at the project location.

In the event that the Site is suspended during construction, the Applicant would plan to remove or secure all loose materials, tools, and equipment and protect any exposed soils with appropriate erosion control measures. If the Site is terminated during construction, the Applicant would decommission all in-place equipment and restore the site to pre-construction conditions in accordance with this plan. Specific Site suspension or termination measures would be developed in conjunction with the contractor in accordance with Article IV.D.9.

## **3.3 Site Restoration Financial Assurance**

In accordance with Article VIII.D.1 of the SCA, the Certificate Holder, or any Transferee, as the case may be, will provide financial assurance sufficient, based on detailed engineering estimates, for required site restoration costs in the form of a surety bond, irrevocable letter of credit, or guaranty. The anticipated

amount of this security will be based on the detailed engineering estimate of the cost of decommissioning shown in Appendix B of this plan.

Appendix B to this plan includes a cost estimate for decommissioning. In accordance with Article VIII.D.1 of the SCA, the decommissioning costs will be reevaluated annually during the active life of the facility. The Certificate Holder or Transferee must adjust the site restoration cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument used to provide financial assurance and must increase the financial assurance amount accordingly to ensure sufficient funds for site restoration.

The Certificate Holder will choose between one of the financial security instruments listed in Article VIII.D.2 at least 30 days prior to the beginning of construction of the site and will notify EFSEC of the type of instrument chosen. No later than 30 days before the beginning of construction, the Certificate Holder will have the chosen financial security instrument in effect, and the appropriate documentation of such security will be filed with EFSEC.

### **3.4 Decommissioning Plan**

TE – Columbia Solar shall submit a detailed Site Restoration Plan to EFSEC for approval at least 90 days prior to decommissioning in accordance with the requirements of Article VUI.A of the SCA. The following sections outline the preliminary decommissioning plan for the project.

#### **3.4.1 Decommissioning Preparation**

The first step in the decommissioning process will be to assess existing site conditions and prepare the project site for demolition, including preparation and submittal of the above referenced removal work plan and schedule for the components and provisions described below. Per Article IV.D.6 the initial demolition plan includes salvaging equipment to the greatest extent possible and disposing of waste materials.

Site decommissioning, excluding revegetation, can take 6 months. Establishment of revegetation on the project site will be the responsibility of the landowner for their agricultural or other approved land uses. The current land use of the project site is agricultural, and the site historically produced hay or served as pasture.

Demolition debris will be placed in a temporary on-site storage area for no more than 120 days with no more than one 120-day extension if determined necessary by EFSEC, pending final transportation and disposal/recycling according to the procedures listed below. The location of the temporary on-site storage area will be included on a site plan with the removal work plan and schedule and site restoration plan review submittal.

#### **3.4.2 Photovoltaic Equipment**

At the start of decommissioning, the project will be de-energized and disconnected from the distribution grid. During decommissioning, project components that are no longer needed will be removed from the site and recycled. The de-energized crystalline silicon PV panels will be unmounted from the torque tubes by sliding the panels off the mounting saddles once the rivet connectors are drilled out. The panels will then be collected into rear-loading garbage trucks and transported to a landfill facility or to a recycling center.

The torque tubes and any additional panel mounting hardware and rack supports will be removed in their entirety, to a depth of 4 feet below grade, from the site using cranes, dump trucks, and flatbed and rear-loader garbage trucks. Tracker motors and any tracker control equipment will be dismantled and recycled as per state e-waste recycling requirements. The support piers/posts will be removed by CAT excavators with attachments and recycled. Cranes will be used to remove any inverters and transformers, including the inverter skids and any foundations.

The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the on-site equipment being used. The majority will be processed for transportation to an off-site recycling center. All steel, copper, and aluminum will be recycled to the maximum extent possible.

### **3.4.3 Substation**

The project will be connected to an existing substation located off-site, therefore no decommissioning activities will be required. All on-site switchgear and protection equipment will be de-energized, dismantled, and removed from the project site using flatbed and rear-loader garbage trucks.

### **3.4.4 Water Tanks**

Any on-site water tanks for fire protection will be drained, detached, and loaded onto flatbed trucks by cranes during the decommissioning process. The water tanks will be salvaged for scrap metals.

### **3.4.5 Internal Power Collection System**

The combiner boxes that convey DC power generated from the solar arrays will be dismantled. The inverters that convert DC power to AC power and the transformers that increase the AC power voltage to 12.47 kV will also be dismantled and removed by cranes and flatbed trucks. Any insulating and cooling mineral oil and fluids from the transformers will be drained, removed from the site, and recycled or disposed of at an appropriately licensed disposal facility. The underground 12.47-kV cables and conduits that form the AC and DC collection systems, as well as any aboveground DC electrical wiring, will be removed and recycled. If any cable or conduit is left in place, the depth will be a minimum of 4 feet below grade to allow for future farming activities.

### **3.4.6 Transmission Line**

Generation tie lines that have been installed on existing poles will be removed and recycled.

### **3.4.7 Roads**

On-site access roads will remain in place to accomplish decommissioning at the end of the facility's life, which is assumed to be 40 years. At the time of decommissioning, if the landowner determines that some of these roads will be beneficial for future use of the site, such roads may remain after decommissioning. On-site roads will be compacted dirt roads or gravel roads. Roads that will not be re-used will be restored to preconstruction conditions. For any asphalt access driveways that will be removed, asphalt material will be broken up and removed to an appropriate disposal site. The landowners may choose to maintain the access driveways for farming purposes.

### **3.4.8 Fences**

Once the site has been fully restored according to Section 3.1 above, the chain-link fences and gates surrounding the project site can be removed and recycled.

## **4 SITE RESTORATION**

Once removal of project equipment is complete, the site will be restored to preconstruction conditions. The landowner will be responsible for the revegetation with the crop of their choice.

The restoration will be enhanced by the operational landscape revegetation and restoration plan outlined in Section 2.7, above. Fugitive dust control on remaining vacant land shall be met by preservation of the vegetation planted on-site during the operation phase.

Photographic documentation of the preconstruction vegetative conditions on the site is provided in Appendix C. At the time of decommissioning, the site will be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site. The decommissioning will leave the existing vegetation on-site and allow the landowner to determine the revegetation of the area for farming purposes. The landowner will also determine any fertilizers to apply that are applicable to the specific crop they choose to plant.

### **4.1 Restoration Plan**

All decommissioning shall occur in a manner where appropriate dust suppression can be achieved. Based on the site conditions, a biologist will develop a restoration plan acceptable to EFSEC at the time of decommissioning. Because of the limited disturbance to soils and site contours by the construction of the project, it is expected that restoration will largely involve reseeding by the landowner. De-compaction if required may involve disking or similar methods by the landowners. The project's land contours will be maintained similar to preconstruction conditions, as the panels will be constructed on the existing contours when possible.

### **4.2 Monitoring**

During the first growing season following site restoration, the project's biologist will coordinate with EFSEC on site-specific monitoring of the revegetated area, with landowner approval and consent. If the landowner consents, the biologist may monitor the revegetation for 3 years for data collection on the restoration efforts. The monitoring will not interfere with the landowner's farming operations.

### **4.3 Criteria for Restoration**

According to Article VIII.A, success criteria for site restoration will be established prior to commencement of decommissioning activities, based on the documented preconstruction conditions, experience gained with revegetation during operation, and the condition of the site at the time of decommissioning. The restoration success criteria will be established in the restoration plan submitted with the removal work plan and schedule to EFSEC in consultation with the designated biologist.

## 4.4 Reporting and Schedule

Acceptable levels of revegetation success and the schedule for achieving them could vary based on various factors such as soil, rainfall conditions, and farming operations. The revegetation success and scheduling of success monitoring efforts will be determined to the satisfaction of EFSEC and the designated biologist, with the cooperation of the landowner. The annual reports submitted to EFSEC of the project site will include copies of completed site review forms and a summary of monitoring data and results, and identification of site locations successfully revegetated by the landowner.

Once restoration of the project site is determined to be complete, a final report of restoration activities and results will be submitted to EFSEC, in consultation with the designated biologist, for review and approval.

## 5 MITIGATION MEASURES

During project decommissioning, and site restoration the Certificate Holder shall implement the mitigation measures set forth in the SCA, including, but not limited to, those presented in Section 1.10 of the Revised Application, those identified in the Final State Environmental Policy Act Environmental Checklist as commitments made by the Certificate Holder, and those presented in the Revised MDNS. Those mitigation measures are summarized in Table 1.

**Table 1. Summary of Mitigation Measures for the Camas Solar Project's Potential Construction and Operational Impacts**

Technical Resource	Mitigation Measures
Earth	<p>Geology</p> <p>Construction:</p> <p>Complete several test borings to determine whether piles could be placed without damage. The purpose of this testing would be two-fold: 1) it is necessary to determine that the piles can be driven into the bearing soils to the required embedment depth without damaging the pile and 2) it is required to load test the resulting piles to determine that adequate bearing capacity is being developed.</p> <p>Operation:</p> <p>There would be no long-term operational mitigation measures for geology.</p> <p>Soils</p> <p>Construction:</p> <ul style="list-style-type: none"> <li>Planned best management practices (BMPs) include those from stormwater management guidelines applicable to eastern Washington.</li> <li>If excavated site soils are to be used as structural fill, they would be protected from moisture while stockpiled.</li> <li>Stockpiled topsoil would not be mixed with structural fill, if it is planned for use in non-structural areas.</li> <li>Temporary excavations like utility excavations and foundation excavations with heights in excess of 4 feet would be sloped no steeper than 1.5H:1V. If seepage is observed in these excavations, they may need to be sloped at 2H:1V to prevent sloughing due to seepage pressure. Dewatering measures may also be needed to control seepage.</li> <li>Temporary construction ingress and egress would be completed prior to the start of ongoing construction traffic at the solar project site. A temporary construction entrance would be constructed of 8 to 12 inches of quarry spalls. If the soils in the entrance locations are soft, a layer of geotextile fabric would be laid down as a barrier prior to placement of quarry spalls. The quarry spalls would provide a stable entrance/exit to the site and would limit tracking of mud onto the existing public and private roads during and after wet weather.</li> <li>Infiltration and temporary erosion and sedimentation control (TESC) measures would consist of installation of silt fencing as needed around the solar project site entrance, around the perimeter of the low side of the site, and at discharge points where sediment-laden surface water might enter off-site</li> </ul>

Technical Resource	Mitigation Measures
	<p>drainage features. Because the solar project site is flat and slopes very gently to the south, silt fencing would probably not be necessary at the southern perimeters.</p> <p>Operation: Planned BMPs include those from stormwater management guidelines applicable to eastern Washington.</p> <p>Topography, Unique Physical Features, and Seismic Activities Construction and Operation: No mitigation measures are proposed for these technical resources because there would be no significant impacts from the proposed solar project related to these resources.</p>
Air	<p>Construction: Dust from access roads would be controlled by applying gravel or watering, as necessary.</p> <p>Operation: There would be no long-term operational mitigation measures for air.</p>
Water	<p>Water Resources Construction: TE – Columbia Solar utilized avoidance measures during the solar project design to avoid, reduce, or eliminate impacts to water resources. At unavoidable crossings of water resources, TE – Columbia Solar would utilize the existing bridge infrastructure to the extent possible and, where bridge improvements are needed, techniques would be utilized that would not require impacting water resources below their ordinary high water marks (OHWMs), such as spanning existing bridges. Proper BMPs to reduce or eliminate runoff of contaminants would be utilized, including the proper use of silt fencing, to protect water resources from contamination and sedimentation.</p> <p>Operation: Once construction is completed, seeding would be conducted in accordance with the Restoration and Vegetation Management Plan to reduce erosion of bare ground. Once the solar project site has been adequately re-vegetated, the operational use of the solar project site would be limited to the installed infrastructure and would not involve any activities that could affect water resources.</p> <p>Surface Water Construction and Operation: The mitigation measures for Soils (above) and Runoff/Absorption (below) would also reduce the potential for significant surface water impacts.</p> <p>Runoff/Absorption Construction: Off-site flows have been calculated for the solar project site, and would bypass the site via the existing flow paths, which run throughout the site in poorly defined flow paths. The solar project site has been laid out to minimize the area that would encroach into the flow paths. Where limited grading would occur, the solar project site would be graded such that surface water is directed away from structures and slopes. Surface water would not be allowed to pond near the tops or toes of slopes. Stormwater discharge BMPs would be implemented to control runoff from the solar project site. Sediment-laden surface water would be treated such that water discharged from the solar project site meets all water quality standards. Stormwater would not be discharged over the project site slopes to the north of the site.</p> <p>Operation: The measures implemented during the operation phase would be the same as those discussed above for the construction phase of the project.</p>

Technical Resource	Mitigation Measures
Habitat, Vegetation, Fish, and Wildlife	<p><b>Floodplains</b></p> <p>Construction:</p> <p>TE – Columbia Solar utilized avoidance measures during the solar project design to avoid, reduce, or eliminate impacts to the FEMA-mapped 100-year floodplain within the Camas Solar Project site.</p> <p>In areas of the FEMA-mapped 100-year floodplain that would be unavoidable, TE – Columbia Solar would limit site grading, except in areas where roads and transformers would be located, so as not to substantially alter the floodplain storage area. All transformers would be located outside of the FEMA-mapped 100-year floodplain.</p> <p>Footings for the solar panel modules would be installed using pile-driven H-piles, which would not result in any soil spoil piles and would minimize the overall footprint of the solar panel modules.</p> <p>Operation:</p> <p>Once construction is completed, no additional measures would need to be taken to mitigate for the operational use of the solar project site, which would be limited to the installed infrastructure and would have minimal changes in elevation or grade in FEMA-mapped 100-year floodplain areas.</p> <p><b>Groundwater</b></p> <p>Construction:</p> <p>Groundwater control measures would be on-site or readily available, including trash pumps, sumps, and discharge ditches.</p> <p>Operation:</p> <p>Groundwater control measures would be on-site or readily available, including trash pumps, sumps, and discharge ditches.</p>
	<p>Construction:</p> <p>Buffers and Seasonal Timing:</p> <p>To ensure compliance with MBTA, vegetation clearing would ideally be undertaken from August 1 through the end of February.</p> <p>If construction or vegetation clearing is required between March 1 and August 1, nest surveys would be required in the proposed area of disturbance. If active migratory bird nests (including raptor nests) are encountered during the surveys, land-disturbing construction activities should be avoided while the birds are allowed to fledge. An appropriate species avoidance buffer, as determined in conjunction with WDFW and local agencies, would apply to all active nests for migratory bird species.</p> <p>Riparian Corridors:</p> <p>Avoidance buffers have been incorporated into the solar project design for streams in the vicinity of the proposed solar project.</p> <p>To additionally protect riparian corridors and habitats, peak construction activities would be conducted during the dry season as much as possible, to minimize erosion, sedimentation, and soil compaction.</p> <p>Noise:</p> <p>All noise-generating construction activities would be conducted between the hours of 7 a.m. and 10 p.m., in accordance with WAC 173-60-050 and local bylaws and noise ordinances, including but not limited to KCC 9.45.010, Public Disturbance Noises. These practices would avoid night-time noise disturbances to wildlife species.</p> <p>Design and Construction Techniques:</p> <p>Avoid, when possible, construction in sensitive areas such as riparian zones and wetlands.</p> <p>Flag sensitive habitat areas (e.g., raptor nests, wetlands, etc.) near proposed areas of construction activity, and designate such areas as off limits to all construction personnel.</p> <p>During the nesting season, monitor raptor nests within 0.25 mile of the site for nesting activity; coordinate construction timing and activities with WDFW to avoid impacts to nesting raptors.</p> <p>Minimize new road construction by improving and using existing roads and trails, instead of constructing new roads.</p>

Technical Resource	Mitigation Measures
	<p>Develop and implement a Fire Control Plan, in coordination with local fire districts, to minimize the risk of accidental fires during construction, and respond effectively to any fire that does occur.</p> <p>Designate an environmental monitor during construction to monitor construction activities and ensure compliance with mitigation measures.</p> <p>Implement a trenching protocol during the installation of underground electrical facilities, to allow for conservation of surface soils.</p> <p>Require construction personnel to avoid driving over or otherwise disturbing areas outside of the designated construction areas.</p> <p>Properly store and manage all wastes generated during construction.</p> <p>Use certified weed-free straw bales during construction to avoid introduction of noxious or invasive weeds.</p> <p>There would be one straight row of barbed wire, not circular barbed wire, at the top of the perimeter fences. This would avoid birds becoming trapped in circular barbed wire.</p> <p>For poles installed by TE – Columbia Solar, when feasible:</p> <p>equip overhead power lines with raptor perch guards to minimize risks to raptors and</p> <p>space overhead power line conductors to minimize potential for raptor electrocution.</p> <p>Erosion and Sediment Control:</p> <p>Use BMPs to minimize construction-related surface water runoff and soil erosion.</p> <p>Implement temporary erosion and sediment control measures, as appropriate, both during and after construction.</p> <p>Flag sensitive habitat areas (e.g., riparian zones, wetlands, etc.) near proposed areas of construction activity, and designate such areas as off limits to all construction personnel.</p> <p>Limit disturbances to the minimum necessary when working in or near waterbodies, and install stakes or flagging to restrict vehicles and equipment to designated routes and areas.</p> <p>Delineate construction limits within 200 feet of waterbodies, as specified in the stormwater pollution prevention plan (SWPPP), with a sediment fence, straw wattles, or similarly approved methods to eliminate sediment discharge into waterways and wetlands, minimize the size of construction disturbance areas, and minimize removal of vegetation, to the greatest extent possible.</p> <p>Restoration and Noxious Weed Control:</p> <p>Quickly revegetate habitats temporarily disturbed during construction with native species.</p> <p>Reseed all temporarily disturbed areas with an appropriate mix of native plant species as soon as possible after construction is completed, to accelerate the revegetation of these areas and to prevent the spread of noxious weeds.</p> <p>Consult with WDFW regarding the appropriate native seed mixes to include in the Vegetation Management Plan for revegetation of the solar project site.</p> <p>As further detailed in the Vegetation Management Plan, implement noxious weed control measures.</p> <p>Develop a Noxious Weed Control Plan prior to construction, and implement the plan over the life of the solar project as mitigation. Herbicide application could be a noxious weed control method used.</p> <p>Operation:</p> <p>Fire Control Plan:</p> <p>Implement the Fire Control Plan in coordination with local fire districts, to minimize the risk of accidental fires during operation, and respond effectively to any fire that does occur.</p> <p>Erosion and Sediment Control:</p> <p>Use BMPs to minimize operation-related surface water runoff and soil erosion.</p> <p>Noxious Weed Control:</p> <p>Implement the Noxious Weed Control Plan (as further detailed in the Vegetation Management Plan) over the life of the solar project as mitigation.</p>
Wetlands	<p>Construction:</p> <p>TE – Columbia Solar utilized avoidance measures during the solar project design to avoid, reduce, or eliminate impacts to wetlands.</p>



Technical Resource	Mitigation Measures
	<p>All wetlands would be avoided through the solar project design.</p> <p>Proper BMPs to reduce or eliminate runoff of contaminants would be utilized, including the proper use of silt fencing, to protect wetlands from contamination and sedimentation.</p> <p>Operation:</p> <p>Once construction is completed, seeding would be conducted in accordance with the Restoration and Vegetation Management Plan to reduce erosion of bare ground. Once the site has been adequately re-vegetated, the operational use of the solar project site would be limited to the installed infrastructure and would not involve any activities that could affect wetlands.</p> <p>Additional operational vegetation management actions would involve some minor herbicide treatments to control noxious weeds, potentially near wetland areas.</p>
Energy and Natural Resources	<p>Construction and Operation:</p> <p>Because there would be minimal or no construction or operational impacts to Energy and Natural Resources, no mitigation measures are proposed.</p>
Environmental Health	<p>Noise</p> <p>Construction:</p> <p>All noise-generating construction activities would take place within the hours of 7:00 a.m. to 10:00 p.m. so that it is exempt from local noise standards.</p> <p>Construction equipment would use noise reduction devices that are no less effective than those originally installed by the manufacturer.</p> <p>Stationary equipment used during construction would be located as far as practical from sensitive noise receptors.</p> <p>"Quiet" equipment (i.e., equipment that incorporates noise control elements into the design - compressors have "quiet" models) would be used during construction when reasonably available.</p> <p>Operation:</p> <p>Operation of the project would not exceed the Washington State Noise Maximum and no mitigation is required. Preliminary estimates of the noise levels at the Camas Solar Project property boundary exceed the Washington State Noise Maximum. Post-construction noise monitoring would be conducted and any further mitigation, such as installing a noise-mitigating barrier, would be completed to comply with the noise standard.</p> <p>Risk of Fire or Explosion</p> <p>Construction and Operation:</p> <p>Because there would be minimal risks and potential impacts of fire during construction or operation of the solar project site, and no risks of explosion, no mitigation measures are proposed.</p> <p>Spill Prevention and Control</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Spill Prevention and Control from the solar project site, no mitigation measures are proposed.</p> <p>Solid Wastes</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Solid Wastes from the solar project site, no mitigation measures are proposed.</p>
Land and Shoreline Use	<p>Land Use and Zoning</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Land Use and Zoning from the solar project site, no mitigation measures are proposed.</p> <p>Light and Glare</p> <p>Construction and Operation:</p>

Technical Resource	Mitigation Measures
	<p>Because there would be no construction or operational impacts to light and glare from the solar project site, no mitigation measures are proposed.</p> <p>Aesthetics</p> <p>General:</p> <p>Vegetation or fencing would be used to interrupt the line of sight from nearby key observation points (KOPs) at or near the same elevation of the project.</p> <p>Camas Solar Project site – along the northeast border of the site</p> <p>Vegetation and ground disturbance would be minimized near roads, and the use of existing clearings would be maximized.</p> <p>The use of non-necessary and/or non-safety-related signs and project construction signs should be minimized; necessary signs would be made of non-glare materials and use unobtrusive colors; reverse sides of signs and mounts would be painted or coated using the most suitable color to reduce color contrasts with the existing landscape; however, placement and design of any signs required by safety regulations must conform to regulatory requirements.</p> <p>“Good housekeeping” procedures would be developed to ensure that the site is kept clean of debris, garbage, fugitive trash or waste, and graffiti; to prohibit scrap heaps and dumps; and to minimize storage yards. Design features regarding waste management would be applied.</p> <p>A lighting plan would be prepared that documents how lighting would be designed and installed to minimize night-sky impacts during facility construction and operations phases. Lighting for facilities would not exceed the minimum number of lights and brightness required for safety and security, and would not cause excessive reflected glare. Full cut-off luminaires would be used to minimize upward shining lighting. Lights would be directed downward or toward the area to be illuminated. Light fixtures would not spill light beyond the project boundary. Lights in high illumination areas not occupied on a continuous basis would have switches, timer switches, or motion detectors so that the lights operate only when the area is occupied. Where feasible, vehicle-mounted lights would be used for night maintenance activities. Wherever feasible, consistent with safety and security, lighting would be kept off when not in use. The lighting plan would include a process for promptly addressing and mitigating complaints about potential lighting impacts.</p> <p>The solar site would be adequately screened by either existing or new vegetation or through the application of perimeter fencing to reduce contrast from glint and glare for KOPs with level views.</p> <p>Construction:</p> <p>Project developers would integrate visual and aesthetics mitigation elements early in the construction, which may include treatments such as thinning and feathering vegetation along project edges, salvaging landscape materials from within construction areas, etc.</p> <p>Visual impacts would be reduced during construction by clearly delineating construction boundaries. Within areas not intended for long-term use, impacts would be reduced by minimizing areas of surface disturbance within those boundaries; preserving vegetation to the greatest extent possible; using undulating surface disturbance edges; controlling erosion; using fugitive dust suppression techniques; and restoring exposed soils to their original contour and vegetation.</p> <p>An interim reclamation plan would be in place prior to construction. Interim reclamation of the construction site would begin immediately after construction to reduce the likelihood of visual contrasts associated with erosion and invasive weed infestation and to reduce the visibility of impacted areas as quickly as possible.</p> <p>Existing rocks, vegetation, and drainage patterns would be preserved to the maximum extent practicable, particularly within temporary use areas.</p> <p>Brush-beating or mowing, or using protective surface matting rather than vegetation removal would be done where feasible.</p> <p>For interim reclamation areas, slash from vegetation removal would be mulched and spread to cover fresh soil disturbances as part of the revegetation plan. Slash piles would not be left in sensitive viewing areas.</p> <p>No paint or permanent discoloring agents would be applied to rocks or vegetation to indicate surveyor construction activity limits, except in areas defined and designated for disturbance.</p> <p>All stakes and flagging would be removed from the construction area and disposed of in an approved facility.</p> <p>Operation:</p> <p>The project developer would maintain revegetated surfaces until a self-sustaining stand of vegetation is re-established and visually adapted to the undisturbed surrounding vegetation. For new areas of disturbance (beyond the scope of this project), no new disturbance would be created during operation.</p>

Technical Resource	Mitigation Measures
	<p>Interim restoration would be undertaken during the operating life of the project as soon as possible after disturbances.</p> <p>Maintenance activities would include noxious weed control.</p> <p>Road maintenance activities would avoid blading existing vegetation in ditches and adjacent to roads.</p> <p>Painted facilities would be kept in good repair and repainted when color fades or flakes increase visual contrast.</p> <p>Recreation</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Recreation from the solar project site, no mitigation measures are proposed.</p> <p>Cultural and Historical Preservation</p> <p>Construction:</p> <p>SWCA recommends that an Inadvertent Discovery Plan be prepared for the solar project site prior to project construction, to inform construction personnel what to do in the event that previously unidentified cultural resources are discovered during excavation. In addition, it is understood that DAHP may recommend additional mitigation measures after reviewing the reports on the cultural resource surveys conducted for the proposed solar project.</p> <p>Operation:</p> <p>Because there would be no operational impacts to Cultural and Historic Preservation, no mitigation measures are proposed.</p> <p>Agriculture</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Agriculture from the solar project site, no mitigation measures are proposed.</p>
Transportation	<p>Vehicles</p> <p>Construction:</p> <p>Because there would be less than a 5% increase in average daily traffic volumes and, thus, no impacts to vehicle traffic for the project site, no mitigation measures are proposed.</p> <p>Operation:</p> <p>Because there would be minimal operational staff levels and vehicle trips, and no negative impacts from the solar project site, no mitigation measures are proposed.</p> <p>Waterborne, Rail, and Air Traffic</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Waterborne, Rail, or Air Traffic from the solar project site, no mitigation measures are proposed.</p> <p>Parking</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Parking from the solar project site, no mitigation measures are proposed.</p>
Socioeconomics	<p>Employment, Housing: Tax Revenues, Fire Protection, Police, Schools, Parks and Recreation, Utilities, Maintenance, Communications, Water and Stormwater, Sewer and Solid Waste, Other Governmental Services, and Local Government Revenues</p> <p>Construction and Operation:</p>

Technical Resource	Mitigation Measures
	Because there would be minimal or no construction or operational impacts to these socioeconomic characteristics, public services, or public infrastructure from the solar project site, no mitigation measures are proposed.

## **APPENDIX A**

### **Applicable Requirements from the Columbia Solar Project Site Certification Agreement**

# **APPLICABLE REQUIREMENTS FROM THE COLUMBIA SOLAR PROJECT SITE CERTIFICATION AGREEMENT**

## ***Article III.H – Site Restoration***

The Certificate Holder is responsible for site restoration pursuant to the Council's rules, WAC 463-72, in effect at the time of submittal of the Application. The Certificate Holder shall develop an Initial Site Restoration Plan in accordance with the requirements set out in Article JY.D of this Agreement and in consultation with WDFW, and submit it to EFSEC for approval. The Certificate Holder may not begin Site Preparation or Construction until the Council has approved the Initial Site Restoration Plan, including the posting of all necessary guarantees, securities, or funds associated therewith. The Certificate Holder shall submit a detailed Site Restoration Plan to EFSEC for approval prior to decommissioning in accordance with the requirements of Article VUI.A of this Agreement.

## ***Article IV.D – Initial Site Restoration Plan***

The Certificate Holder is responsible for Site decommissioning and restoration pursuant to Council rules. The Certificate Holder shall develop an Initial Site Restoration Plan, pursuant to the requirements of WAC 463-72-040 in effect on the date of Application, in consultation with EFSEC staff and WDFW. The Certificate Holder shall submit the Initial Site Restoration Plan to the Council for review at least ninety (90) days prior to the beginning of Site Preparation. The Certificate Holder shall not begin Site Preparation prior to obtaining approval of the Initial Site Restoration Plan from the Council. The Initial Site Restoration Plan shall be prepared in sufficient detail to identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated by the Certificate Holder on the date the Plan is submitted to EFSEC. The initial Site Restoration Plan shall describe the process used to evaluate the options and select the measures that will be taken to restore or preserve the Site Location or otherwise protect the public against risks or danger resulting from the Site. The Initial Site Restoration Plan shall include a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk, and shall address provisions for funding or bonding arrangements to meet the Site Location restoration or management costs. The Initial Site Restoration Plan shall be prepared in detail commensurate with the time until restoration is to begin. The scope of proposed monitoring shall be addressed in the Initial Site Restoration Plan.

The objective of the Plan shall be to restore each Site Location to approximate pre-Project condition or better. The Plan shall require removal of the solar panels and rack mounting system, foundations, cables, and other facilities to a depth of four feet below grade, and restoration of any disturbed soil to the pre-construction condition.

The Plan shall include the following elements:

1. Decommissioning Timing and Scope, as required by Article V11I.C of this Agreement.
2. Decommissioning Funding and Surety, as required by Article VIIJ.D of this Agreement.
3. Mitigation measures described in the Revised Application and this Agreement.
4. A plan that addresses both the possibility that restoration will occur prior to, or at the end of, the useful life of the Site and also the possibility of the Site being suspended or terminated during construction.

5. A description of the assumptions underlying the plan. For example, the plan should explain the anticipated useful life of the Site, the anticipated time frame of restoration, and the anticipated future use of the Site Location.
6. An initial plan for demolishing facilities, salvaging equipment, and disposing of waste materials.
7. Performing an on-site audit, and preparing an initial plan for disposing of hazardous materials (if any) present on the Site Location and remediation of hazardous contamination (if any) at the Site Location. In particular, if the Certificate Holder constructs the Site with solar panels incorporating hazardous materials, such as Cadmium Telluride, then the Certificate Holder shall use appropriate precautions during decommissioning and removal of the solar panels to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the panels' hazardous materials.
8. An initial plan for restoring the Site Location, including the removal of structures and foundations to four feet below grade and the restoration of disturbed soils.
9. Provisions for preservation or removal of Site facilities if the Site is suspended or terminated during construction.

## **Article VIII – PROJECT TERMINATION, DECOMMISSIONING AND SITE RESTORATION**

### ***Article VIII.A – Detailed Site Restoration Plan***

The Certificate Holder shall submit a Detailed Site Restoration Plan to EFSEC for approval within ninety (90) days from the time the Council is notified of the termination of the Site. The Detailed Site Restoration Plan shall provide for restoration of the Site Location within the timeframe specified in Article VIII.C, taking into account the Initial Site Restoration Plan and the anticipated future use of the Site Location. The Detailed Site Restoration Plan shall address the elements required to be addressed by WAC 463-72-020, and the requirements of the Council approved Initial Site Restoration Plan pursuant to Article IV.D of this Agreement. The Certificate Holder shall not begin Site Restoration activities without prior approval from the Council. The Certificate Holder shall consult with WDFW, and Ecology in preparation of the Detailed Site Restoration Plan.

### ***Article VIII.B – Site Termination***

1. Termination of this Site Certification Agreement, except pursuant to its own terms, is an amendment of this Agreement.
2. The Certificate Holder shall notify EFSEC of its intent to terminate the Site, including by concluding the plant's operations, or by suspending construction and abandoning the Site.
3. The Council may terminate the SCA through the process described in WAC 463-66-090, and the Council may initiate that process where it has objective evidence that a certificate may be abandoned or when it deems such action to be necessary, including at the conclusion of the plant's operating life, or in the event the Site is suspended or abandoned during construction or before it has completed its useful operating life.

## **Article VIII.C – Site Restoration Timing and Scope**

Site Restoration shall be conducted in accordance with the commitments made in the draft Site Restoration Plan attached as Appendix F to the Application, and the Detailed Site Restoration Plan required by Article VIII.A (unless the Certificate Holder fails to submit such a plan), and in accordance with the following measures:

1. Timing. The Certificate Holder shall commence Site Restoration of the Site within twelve ( 12) months following the termination described in Article VIII.B above.

The period to perform the Site Restoration may be extended if there is a delay caused by conditions beyond the control of the Certificate Holder including, but not limited to, inclement weather conditions, equipment failure, wildlife considerations, or the availability of cranes or equipment to support decommissioning.

2. Scope. Site Restoration shall involve removal of the solar panels and mounting structures; removal of foundations or other Site facilities to a depth of four (4) feet below grade; restoration of any disturbed soil to pre-construction condition; and removal of Project access roads and overhead poles and transmission lines (except for any roads and/or overhead infrastructure that Site Location landowner wishes to retain) (all of which shall comprise "Site Restoration"). Site Restoration shall occur in the order of removing the solar panels as the first priority and performing the remaining elements immediately thereafter. If the Certificate Holder constructs the Site with solar panels incorporating hazardous materials, such as Cadmium Telluride, Site Restoration shall also include the use of appropriate precautions during decommissioning and removal of the solar panels to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the panels' hazardous materials.
3. Monthly Reports. If requested by EFSEC, the Certificate Holder shall provide monthly status reports until this Site Restoration work is completed.
4. Restoration Oversight. At the time of Site Restoration, the Site Location will be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site location. Success criteria for Site Restoration will be established prior to commencement of decommissioning activities, based on the documented preconstruction conditions, experience gained with re-vegetation during operation and the condition of the Site Location at the time of Site Restoration. The restoration success criteria will be established in the Detailed Site Restoration Plan approved by EFSEC in consultation with the designated biologist. Once restoration of the Site Location is determined to be complete, a final report of restoration activities and results will be submitted.

## **Article VIII.D – Site Restoration Financial Assurance**

1. Except as provided in Article VII I.D.3 below, the Certificate Holder or any Transferee, as the case may be, shall provide financial assurance sufficient, based on detailed engineering estimates, for required Site Restoration costs in the form of a surety bond, irrevocable letter of credit, or guaranty. The Certificate Holder shall include a detailed engineering estimate of the cost of Site Restoration in its Initial Site Restoration Plan submitted to EFSEC. The estimate must be based on the costs of the Certificate Holder or Transferee hiring a third party to carry out Site Restoration. The estimate may not be reduced for " net present value" or other adjustments. During the active life of the facility, the Certificate Holder or Transferee must adjust the Site Restoration cost estimate for inflation within sixty days prior to the anniversary date of the



establishment of the financial instrument used to provide financial assurance and must increase the financial assurance amount accordingly to ensure sufficient funds for Site Restoration.

2. The duty to provide such financial assurance shall commence thirty (30) days prior to the beginning of Construction of the Site, and shall be continuously maintained through to the completion of Site Restoration. Construction of the Site shall not commence until adequate financial assurance is provided. On or before the date on which financial assurance must be established, the Certificate Holder shall provide EFSEC with one of the following financial assurance mechanisms that is reasonably acceptable to EFSEC:
  - a. *Surety Bond.* The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through a Surety Bond issued by a surety listed as acceptable in Circular 570 of the U.S. Department of the Treasury. The Performance Bond shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be established by the Certificate Holder or Transferee to receive any funds that may be paid by the surety to be used to complete Site Restoration. The surety shall become liable for the bond obligation if the Certificate Holder or Transferee fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least one hundred twenty days after the Certificate Holder or Transferee and EFSEC have received notice of cancellation. If the Certificate Holder or Transferee has not provided alternate financial assurance acceptable under this SCA within ninety days of the cancellation notice, the surety shall pay the amount of the bond into the standby Site Restoration trust; or
  - b. *Irrevocable Letter of Credit.* The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through an irrevocable letter of credit payable to or at the direction of EFSEC, that is issued by an institution that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency. The letter of credit shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be established by Certificate Holder or Transferee to receive any funds deposited by the issuing institution resulting from a draw on the letter of credit. The letter of credit shall be irrevocable and issued for a period of at least one year, and renewed annually, unless the issuing institution notifies the Certificate Holder or Transferee and EFSEC at least one hundred twenty days before the current expiration date. If the Certificate Holder or Transferee fails to perform Site Restoration, or if the Certificate Holder or Transferee fails to provide alternate financial assurance acceptable to EFSEC within ninety days after notification that the letter of credit will not be extended, EFSEC may require that the financial institution provide the funds from the letter of credit to be used to complete Site Restoration; or
  - c. *Guaranty.* Certificate Holder or any Transferee, as the case may be, shall provide financial assurance for the performance of its Site Restoration obligations by delivering a guaranty to fund the Certificate Holder or Transferee's Site Restoration obligations hereunder from an entity that meets the following financial criteria:
    - i. A current rating of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;
    - ii. Tangible net worth at least six times the sum of the current Site Restoration cost estimates;

- iii. Tangible net worth of at least ten million dollars; and
- iv. Assets in the United States amounting to at least ninety percent of its total assets or at least six times the sum of the current Site Restoration cost estimates.

The guarantor entity's chief financial officer shall provide a corporate guaranty that the corporation passes the financial test at the time the Initial Site Restoration Plan is filed. This corporate guaranty shall be reconfirmed annually ninety days after the end of the corporation's fiscal year by submitting to EFSEC a letter signed by the guaranteeing entity's chief financial officer that:

- i. Provides the information necessary to document that the entity passes the financial test;
- ii. Guarantees that the funds to finance required Site Restoration activities are available;
- iii. Guarantees that required Site Restoration activities will be completed;
- iv. Guarantees that within thirty days if written notification is received from EFSEC that the entity no longer meets the above financial criteria, the entity shall provide an alternative form of financial assurance consistent with the requirements of this section;
- v. Guarantees that the entity's chief financial officer will notify in writing the Certificate Holder or Transferee and EFSEC within fifteen days any time that the entity no longer meets the above financial criteria or is named as debtor in a voluntary or in voluntary proceeding under Title 11 U.S.C. Bankruptcy;
- vi. Acknowledges that the corporate guaranty is a binding obligation on the corporation and that the chief financial officer has the authority to bind the corporation to the guaranty;
- vii. Attaches a copy of the independent certified public accountant's report on examination of the entity's financial statements for the latest completed fiscal year; and
- viii. Attaches a special report from the entity's independent certified public accountant (CPA) stating that the CPA has reviewed the information in the letter from the entity's chief financial officer and has determined that the information is true and accurate.

If the Certificate Holder or any Transferee fails to perform Site Restoration covered by the guaranty in accordance with the approved Initial or Final Site Restoration plan, the guarantor will be required to complete the appropriate activities. The guaranty will remain in force unless the guarantor sends notice of cancellation by certified mail to the Certificate Holder or Transferee and EFSEC. Cancellation may not occur, however, during the one hundred twenty days beginning on the date of receipt of the notice of cancellation by the Certificate Holder or Transferee and EFSEC. If the Certificate Holder or Transferee fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from EFSEC within ninety days after receipt of a notice of cancellation of the guaranty from the guarantor, the guarantor

will provide such alternative financial assurance in the name of the Certificate Holder or Transferee.

3. If the SCA is transferred after its effective date pursuant to applicable EFSEC laws and regulations, EFSEC has the right to require, consider, and approve other financial security that would provide for the Certificate Holder's performance of its Site Restoration obligations pursuant to Articles VIII.C and VIII.D of this Site Certification Agreement.

## **APPENDIX B**

### **Cost Estimate of Decommissioning and Site Restoration**

# **COST ESTIMATE OF DECOMMISSIONING AND SITE RESTORATION**

Cost estimates for decommissioning and site restoration for the Camas Solar site is included in Table B-1. These costs include the removal, recycling, and disposal of the system components as well as any grading and reseeding that would be required to return the site to pre-project conditions following equipment removal. Cost estimates were developed based on current prices for similar sized utility scale solar projects, the assumptions outlined below, and those listed in Tables 1-3 for each task.

Most materials from solar installations may be recycled, reused, or even sold resulting in no costs or compensation. A periodic reevaluation of decommissioning costs during the project's lifetime is recommended as costs could decrease and revenue from recyclable materials could fluctuate. The cost estimates included in Table B-1 do not account for the offsets to costs from recycling or reselling project components.

## **Assumptions**

- Labor costs are estimated at \$30 per hour and equipment costs are estimated at \$150 per hour.
- System electrical equipment including inverters, transformers and switchgear to be removed from their respective concrete pads and recycled or returned to their manufacturer for processing. The project contains large amounts of copper, aluminum, and other conductive metals, which are easily recyclable.
- Chain link fencing to be removed and sold or recycled.
- Solar photovoltaic modules will be detached from the racking system, stacked for removal, and recycled or reused.
- Sections of the racking system will be cut, stacked, and recycled. Racking posts will be removed, stacked and recycled.
- The concrete pads will be lifted, secured onto flat beds, and transported off-site for processing.
- AC and DC wiring that can be disconnected and removed from equipment and earth will be consolidated for recycling. Direct buried conductors and PVC conduit that would require substantial soil disturbance for removal is excluded.
- All non-recyclable materials will be taken to the nearest approved landfill for disposal.
- On site power poles and medium voltage wiring shall be dug out and removed.
- All resulting depressions, voids, and excavation areas will be backfilled, and graded to the proper elevation. Backfilling and compaction of disturbed areas are included.
- All disturbed areas associated with the array will be re-vegetated in effort to return the landscape of the earth as close to its previous state as possible. This includes the gravel access drives within the fenced area, unless otherwise requested by the landowner. This estimate does not include any tree planting.
- The electric lines are property of the local utility and are not subject to this study.

**Table B-1. Estimated Decommissioning Cost for the Camas Solar Project**

Task	Unit	Quantity	Labor Cost	Equipment Cost	2021 Cost± for 5 MW project	Assumption
Remove Rack Wiring	Linear foot (l.f.)	2981	\$1,739	\$8,694	\$10,434	10 minutes per 10 l.f.
Remove Panels	module	13,893	\$1,158	\$5,789	\$6,947	5 minutes per module
Dismantle Racks and posts to 4 feet below grade	posts	1490	\$12,878	\$64,372	\$77,250	5 minutes per post
Remove electrical equipment	MW	5	\$750	\$3,750	\$4,500	1 hour per MW
Breakup/Remove Conc. Pads/ballast	pads	3	\$375	\$1,875	\$2,250	1.5 hour per pad
Remove Cable and Underground Conduit	l.f.	2855	\$2,380	\$11,895	\$14,275	15 minutes per 10 l.f.
Remove Fence	l.f.	6165	\$1,542	\$7,706	\$9,248	5 minutes per 10 l.f.
Remove Access Roads	acre	0.54	\$1,167	\$5,832	\$6,998	72 hours for 0.5 acre
Re-grading and seeding	acre	46	\$690	\$3,450	\$4,140	30 minutes per acre
Truck to Recycling Center (offsite disposal)	Loads (lump sum)	3	-	-	\$9,000	Lump sum of \$3,000 per trip.
Erosion Control install and disposal	l.f.	500	-	-	\$750	Lump sum \$1.50 per foot.
<b>Current Total</b>					<b>\$145,791</b>	
<b>Total After 40 Years (2.5% infl.)</b>					<b>\$245,672</b>	

## **APPENDIX C**

### **Pre-construction Vegetation Photographs**



**Photo 1. Camas Solar Project site.**



**Photo 2. Camas Solar Project site.**





**Photo 3. Camas Solar Project site.**

The logo for SWCA (Soil Water Conservation Agency) is positioned vertically on the left side of the page. It consists of the letters 'S', 'W', 'C', and 'A' in a large, stylized, light blue font, stacked one above the other.

# Columbia Solar Projects, Penstemon Solar Project Initial Site Restoration Plan

MAY 2021

PREPARED FOR

**TE – Columbia Solar, LLC**

PREPARED BY

**SWCA Environmental Consultants**



# **COLUMBIA SOLAR PROJECTS, PENSTEMON SOLAR PROJECT INITIAL SITE RESTORATION PLAN**

Prepared for

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SWCA Project No. 60978

May 2021



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# **1 INTRODUCTION**

TE – Columbia Solar, LLC (TE – Columbia Solar), a subsidiary of TUUSSO Energy LLC, will construct, own and operate a 5-MW alternating current (AC) solar photovoltaic (PV) power generation facility and associated electrical interconnection facilities (Penstemon Solar Project), one of three Columbia Solar Projects. The Penstemon Solar Project is located on approximately 39 acres of privately owned agricultural land located in rural Kittitas County in central Washington . The project would connect into the existing Puget Sound Energy (PSE) distribution transmission line along Tjossem Road. The Penstemon Solar Project will be located approximately 4 miles southeast of the Ellensburg city center, in Section 17, Township 17 North, Range 19 East, Willamette Meridian (Figure 1). The project site is within the Upper Yakima subbasin and Water Resources Inventory Area (WRIA 39; Hydrologic Unit Code 17030001). The project would provide up to 5 MW of solar energy to PSE for use within its service area. Construction will begin in Spring 2021.



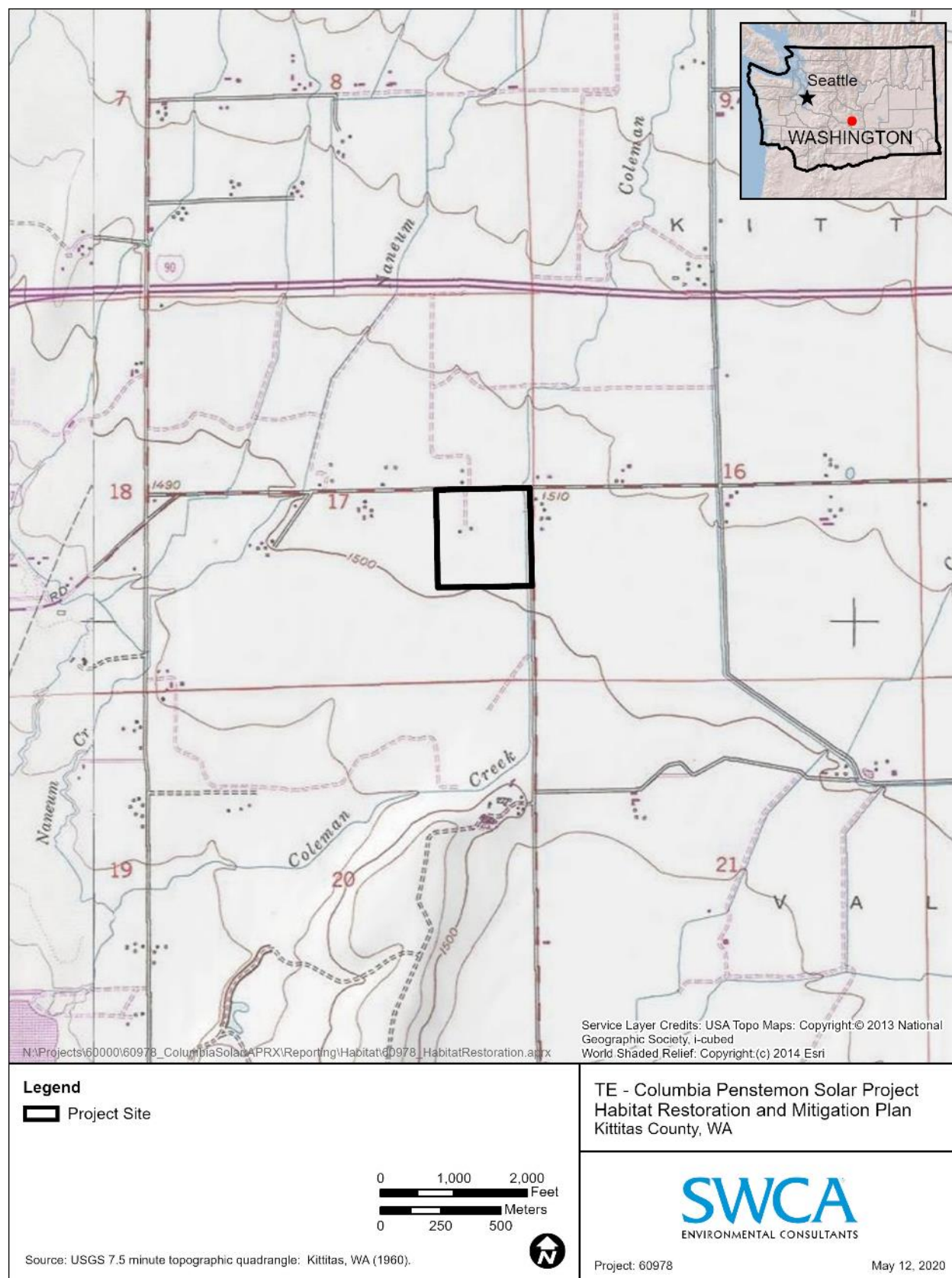


Figure 1. Penstemon project location.

## **1.1 Purpose of Plan**

The purpose of this initial site restoration plan (ISRP) is to identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated by the TE – Columbia Solar in compliance with Article IV Part D of the Site Certification Agreement (SCA). This ISRP describes the process used to evaluate the options and select the measures that will be taken to restore or preserve the site location or otherwise protect the public against risks or danger resulting from the site. The plan includes a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk and addresses provisions for funding or bonding arrangements to meet the site location restoration or management costs.

## **2 PROJECT COMPONENTS**

The project's components subject to decommissioning include the equipment summarized below. These components are discussed in detail in the Mitigated Determination of Non-Significance (MDNS) for the project. The decommissioning activities associated with these components are discussed in Section 3.0 of this ISRP.

### **2.1 Site Construction Preparation**

Construction facilities will be located at the project site. Facilities will include the construction entrance/exit, all-weather access roads, and parking and staging areas for vehicle and equipment storage and maintenance. Laydown areas will be used for pre-assembly of components and materials storage/staging. The project site will also include areas for construction worker parking. Temporary construction offices will be installed on-site using modular trailers.

All-weather access roads will be built for access to inverter pads via new gates at the access points shown in the site plans.

Site access driveways and gates will remain in place for the operational phase of the project.

### **2.2 Well Water**

No well water will be obtained or used for the project. Dust control water for construction, fire protection water, and water for panel washing and for watering vegetation on-site will be obtained from water trucks bringing in off-site water or through the landowners' existing water rights on the project site.

### **2.3 Photovoltaic Equipment**

The PV equipment for the project will consist of approximately 50,000 PV panels mechanically fastened on steel support structures and driven by single axis trackers. The steel support structures will be supported on galvanized steel posts that will be driven into the ground. The tracker motors will be supported on cast-in-place foundations.

The construction methods for the preparation of the site and the installation of the panels shall be consistent with all approved SCA conditions for the project site. Should a discrepancy exist between the SCA for the project and the installation methods outlined below, the SCA shall govern.

Grading shall be limited mainly to the all-weather access roads, tanks, inverter pads, project switchyards, or other areas consistent with the approved exhibit map/grading plan. Per Article V.E.1, work within the area where the solar panels are proposed shall be conducted with minimal disturbance, and the operator shall take all necessary precautions to not use vehicles or machineries for grading or alter the existing grade in these areas.

When vehicles or machinery are deemed necessary for solar field installation work, appropriate ground-protection practices (such as construction mats, stabilizers, or established vegetation) shall be used for both dust suppression and to ensure that the vehicles or machineries are compatible with continued and future vegetation growth to the satisfaction of Energy Facility Site Evaluation Council (EFSEC). Any grading, disking, and scraping for access roads, walkways, required basins and/or berms shall be permanently stabilized with an earth-stabilizing product.

Contrary to conventional power plant design where the site has to be prepared to meet a set of pre-engineered contours, the construction approach will be to use existing contours where possible without significantly altering grades on the project site.

A light-on-land philosophy will be used for the grading and installation of the project. Several features of this philosophy are as follows:

- Preservation of property: Temporary fencing will be used to protect areas not to be disturbed.
- Existing improvements, properties, utilities, facilities, trees, and plants that are not to be removed will be protected from injury or damage. Construction materials and equipment will not be placed within the drip line of trees if any are encountered. Damaged trees, if any, will be replaced.
- Temporary staging areas will be used within the solar fields, and they will ultimately be built over with solar arrays. The areas will be seeded after construction is completed.
- Limited all-weather access roads through the solar fields will be constructed by compacting existing soil. Minimal fill will be used only when necessary.

## **2.4 Substation**

The project will be connected to an existing substation located off-site. The project will include on-site switchgear and protection and will be connected to an existing utility distribution line.

## **2.5 Internal Power Collection System**

The PV modules will convert sunlight into direct current (DC) electricity. The PV-generated DC power will be collected from each of the multiple rows of PV modules, from which it will be connected to multiple combiner boxes and ultimately to skids each containing multiple inverters and a distribution voltage transformer. The inverters will convert the DC power to AC power, which will then flow to the transformer that will increase the AC power voltage to 12.47 kV. Multiple transformers from multiple skids will be connected in parallel to on-site switchgear and protection equipment. The power will then be delivered to the existing aboveground PSE distribution lines.

## **2.6 Roads**

Access to the project site will be from public rights-of-way and private access roads. Access permits will be required when connecting to a county-owned rights-of-way. Construction of those access points will be in compliance with state and/or county requirements.

## **2.7 Vegetation During Operations**

Perimeter vegetation will be planted per the site plan and watered as required. Vegetation under the solar panels will be managed as per the SCA and other safety and operational requirements.

# **3 PROJECT DECOMMISSIONING AND RECYCLING**

The activities involved in the facility closure will depend on the expected future use of the project site. At the time of decommissioning, in addition to this ISRP, a detailed removal work plan and schedule and a site restoration plan, shall be filed with EFSEC as a discretionary site plan review, for review and approval by EFSEC. The removal work plan and schedule will describe the proposed equipment that will be removed and an associated schedule for such removal based on expected future uses of the project site. The currently envisaged plan involves completion of the decommissioning, excluding establishment of revegetation, in a 6-month period.

In general, decommissioning will attempt to maximize the recycling of all facility components. Specific opportunities for recycling (e.g., PV solar panels) are discussed below in the context of various site components. The individual project components to be decommissioned will be recycled to the maximum extent practical.

The key project components affected by decommissioning activities are discussed below. The general decommissioning approach will be the same whether a portion, or all of the project is decommissioned.

## **3.1 Evaluation Process**

When considering decommissioning of the project, the best option will be determined by comparing the estimated costs to refurbish or repower, the projected revenue from continued operations, and the potential risks to the public from either decommissioning, refurbishing, or repowering. While PV modules are not considered more hazardous than standard construction materials, any hazardous materials found in the components used to construct PV modules may pose a risk to humans and the environment if left in a state of disrepair or not disposed of correctly. Both refurbishing and repowering can cost almost as much as installing a new system, will require some disposal of hazardous materials, and may not be the best option if the project cannot be readily repaired or updated. If it does not make economic sense to repair or refurbish a project, decommissioning following industry best practices for correct recycling and disposal of materials could be the best option. Recycling and disposal procedures are described for each project component in Section 3.4, Decommissioning Plan.

Upon decommissioning, the Certificate Holder is required by the SCA to remove all project facilities and re-seed disturbed areas. Once facilities are removed, the decision on how to best recycle or dispose of materials will be based on which process poses the least risk to human health. Restoration activities will return the project site to a land use consistent with the surrounding land uses at the time of decommissioning.

The Certificate Holder will implement financial security instruments in the full anticipated amount of costs required to decommission the project, remove facilities and perform restoration activities. See Section 4 below and Appendix B.

## **3.2 Site Restoration Timing and Scope**

### **3.2.1 *Timing***

Per Article VIII.C.1, the Certificate Holder is required to begin decommissioning of the project within 12 months following project termination. Project termination can be triggered directly by the Certificate Holder, or if the Certificate Holder is required to terminate the project according to the requirements of Article VIII.B of the SCA. This plan assumes that decommissioning and restoration activities would occur at the end of the useful life of the project, but all activities outlined herein would be the same if required prior to that time or if the site was suspended or terminated during construction, as required in Article III.B.4.

The SCA allows the period to perform the decommissioning to be extended if there is a delay caused by conditions beyond the control of the Certificate Holder including, but not limited to, inclement weather conditions, equipment failure, wildlife considerations, or the availability of cranes or equipment to support decommissioning.

### **3.2.2 *Scope***

As required by Article VIII.C.2 of the SCA, decommissioning the project shall involve removal of the solar panels and mounting structures; removal of foundations or other site facilities to a depth of 4 feet below grade; restoration of any disturbed soil to preconstruction condition; and removal of project access roads and overhead poles and transmission lines (except for any roads and/or overhead infrastructure that the site location landowner wishes to retain) (all of which shall comprise *site restoration*). Removing the solar panels will be the first priority of site restoration and performing the remaining elements will occur immediately thereafter. If the Certificate Holder constructs the site with solar panels incorporating hazardous materials, such as cadmium telluride, site restoration shall also include the use of appropriate precautions during decommissioning and removal of the solar panels to safely dispose of, avoid, and, if necessary, remediate any soil contamination resulting from the hazardous materials as outlined in Article IV.D.7. Prior to the initiation of project decommissioning an on-site audit will be performed to identify and determine the appropriate method for disposing of hazardous materials (if any) present on the site. Location and remediation of hazardous contamination (if any) at the project location.

In the event that the Site is suspended during construction, the Applicant would plan to remove or secure all loose materials, tools, and equipment and protect any exposed soils with appropriate erosion control measures. If the Site is terminated during construction, the Applicant would decommission all in-place equipment and restore the site to pre-construction conditions in accordance with this plan. Specific Site suspension or termination measures would be developed in conjunction with the contractor in accordance with Article IV.D.9.

## **3.3 Site Restoration Financial Assurance**

In accordance with Article VIII.D.1 of the SCA, the Certificate Holder, or any Transferee, as the case may be, will provide financial assurance sufficient, based on detailed engineering estimates, for required site restoration costs in the form of a surety bond, irrevocable letter of credit, or guaranty. The anticipated

amount of this security will be based on the detailed engineering estimate of the cost of decommissioning shown in Appendix B of this plan.

Appendix B to this plan includes a cost estimate for decommissioning. In accordance with Article VIII.D.1 of the SCA, the decommissioning costs will be reevaluated annually during the active life of the facility. The Certificate Holder or Transferee must adjust the site restoration cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument used to provide financial assurance and must increase the financial assurance amount accordingly to ensure sufficient funds for site restoration.

The Certificate Holder will choose between one of the financial security instruments listed in Article VIII.D.2 at least 30 days prior to the beginning of construction of the site and will notify EFSEC of the type of instrument chosen. No later than 30 days before the beginning of construction, the Certificate Holder will have the chosen financial security instrument in effect, and the appropriate documentation of such security will be filed with EFSEC.

### **3.4 Decommissioning Plan**

TE – Columbia Solar shall submit a detailed Site Restoration Plan to EFSEC for approval at least 90 days prior to decommissioning in accordance with the requirements of Article VUI.A of the SCA. The following sections outline the preliminary decommissioning plan for the project.

#### **3.4.1 Decommissioning Preparation**

The first step in the decommissioning process will be to assess existing site conditions and prepare the project site for demolition, including preparation and submittal of the above referenced removal work plan and schedule for the components and provisions described below. Per Article IV.D.6 the initial demolition plan includes salvaging equipment to the greatest extent possible and disposing of waste materials.

Site decommissioning, excluding revegetation, can take 6 months. Establishment of revegetation on the project site will be the responsibility of the landowner for their agricultural or other approved land uses. The current land use of the project site is agricultural, and the site historically produced hay or served as pasture.

Demolition debris will be placed in a temporary on-site storage area for no more than 120 days with no more than one 120-day extension if determined necessary by EFSEC, pending final transportation and disposal/recycling according to the procedures listed below. The location of the temporary on-site storage area will be included on a site plan with the removal work plan and schedule and site restoration plan review submittal.

#### **3.4.2 Photovoltaic Equipment**

At the start of decommissioning, the project will be de-energized and disconnected from the distribution grid. During decommissioning, project components that are no longer needed will be removed from the site and recycled. The de-energized crystalline silicon PV panels will be unmounted from the torque tubes by sliding the panels off the mounting saddles once the rivet connectors are drilled out. The panels will then be collected into rear-loading garbage trucks and transported to a landfill facility or to a recycling center.

The torque tubes and any additional panel mounting hardware and rack supports will be removed in their entirety, to a depth of 4 feet below grade, from the site using cranes, dump trucks, and flatbed and rear-loader garbage trucks. Tracker motors and any tracker control equipment will be dismantled and recycled as per state e-waste recycling requirements. The support piers/posts will be removed by CAT excavators with attachments and recycled. Cranes will be used to remove any inverters and transformers, including the inverter skids and any foundations.

The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the on-site equipment being used. The majority will be processed for transportation to an off-site recycling center. All steel, copper, and aluminum will be recycled to the maximum extent possible.

### **3.4.3 Substation**

The project will be connected to an existing substation located off-site, therefore no decommissioning activities will be required. All on-site switchgear and protection equipment will be de-energized, dismantled, and removed from the project site using flatbed and rear-loader garbage trucks.

### **3.4.4 Water Tanks**

Any on-site water tanks for fire protection will be drained, detached, and loaded onto flatbed trucks by cranes during the decommissioning process. The water tanks will be salvaged for scrap metals.

### **3.4.5 Internal Power Collection System**

The combiner boxes that convey DC power generated from the solar arrays will be dismantled. The inverters that convert DC power to AC power and the transformers that increase the AC power voltage to 12.47 kV will also be dismantled and removed by cranes and flatbed trucks. Any insulating and cooling mineral oil and fluids from the transformers will be drained, removed from the site, and recycled or disposed of at an appropriately licensed disposal facility. The underground 12.47-kV cables and conduits that form the AC and DC collection systems, as well as any aboveground DC electrical wiring, will be removed and recycled. If any cable or conduit is left in place, the depth will be a minimum of 4 feet below grade to allow for future farming activities.

### **3.4.6 Transmission Line**

Generation tie lines that have been installed on existing poles will be removed and recycled.

### **3.4.7 Roads**

On-site access roads will remain in place to accomplish decommissioning at the end of the facility's life, which is assumed to be 40 years. At the time of decommissioning, if the landowner determines that some of these roads will be beneficial for future use of the site, such roads may remain after decommissioning. On-site roads will be compacted dirt roads or gravel roads. Roads that will not be re-used will be restored to preconstruction conditions. For any asphalt access driveways that will be removed, asphalt material will be broken up and removed to an appropriate disposal site. The landowners may choose to maintain the access driveways for farming purposes.

### **3.4.8 Fences**

Once the site has been fully restored according to Section 3.1 above, the chain-link fences and gates surrounding the project site can be removed and recycled.

## **4 SITE RESTORATION**

Once removal of project equipment is complete, the site will be restored to preconstruction conditions. The landowner will be responsible for the revegetation with the crop of their choice.

The restoration will be enhanced by the operational landscape revegetation and restoration plan outlined in Section 2.7, above. Fugitive dust control on remaining vacant land shall be met by preservation of the vegetation planted on-site during the operation phase.

Photographic documentation of the preconstruction vegetative conditions on the site is provided in Appendix C. At the time of decommissioning, the site will be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site. The decommissioning will leave the existing vegetation on-site and allow the landowner to determine the revegetation of the area for farming purposes. The landowner will also determine any fertilizers to apply that are applicable to the specific crop they choose to plant.

### **4.1 Restoration Plan**

All decommissioning shall occur in a manner where appropriate dust suppression can be achieved. Based on the site conditions, a biologist will develop a restoration plan acceptable to EFSEC at the time of decommissioning. Because of the limited disturbance to soils and site contours by the construction of the project, it is expected that restoration will largely involve reseeding by the landowner. De-compaction if required may involve disking or similar methods by the landowners. The project's land contours will be maintained similar to preconstruction conditions, as the panels will be constructed on the existing contours when possible.

### **4.2 Monitoring**

During the first growing season following site restoration, the project's biologist will coordinate with EFSEC on site-specific monitoring of the revegetated area, with landowner approval and consent. If the landowner consents, the biologist may monitor the revegetation for 3 years for data collection on the restoration efforts. The monitoring will not interfere with the landowner's farming operations.

### **4.3 Criteria for Restoration**

According to Article VIII.A, success criteria for site restoration will be established prior to commencement of decommissioning activities, based on the documented preconstruction conditions, experience gained with revegetation during operation, and the condition of the site at the time of decommissioning. The restoration success criteria will be established in the restoration plan submitted with the removal work plan and schedule to EFSEC in consultation with the designated biologist.



## 4.4 Reporting and Schedule

Acceptable levels of revegetation success and the schedule for achieving them could vary based on various factors such as soil, rainfall conditions, and farming operations. The revegetation success and scheduling of success monitoring efforts will be determined to the satisfaction of EFSEC and the designated biologist, with the cooperation of the landowner. The annual reports submitted to EFSEC of the project site will include copies of completed site review forms and a summary of monitoring data and results, and identification of site locations successfully revegetated by the landowner.

Once restoration of the project site is determined to be complete, a final report of restoration activities and results will be submitted to EFSEC, in consultation with the designated biologist, for review and approval.

## 5 MITIGATION MEASURES

During project decommissioning, and site restoration the Certificate Holder shall implement the mitigation measures set forth in the SCA, including, but not limited to, those presented in Section 1.10 of the Revised Application, those identified in the Final State Environmental Policy Act Environmental Checklist as commitments made by the Certificate Holder, and those presented in the Revised MDNS. Those mitigation measures are summarized in Table 1.

**Table 1. Summary of Mitigation Measures for the Penstemon Solar Project's Potential Construction and Operational Impacts**

Technical Resource	Mitigation Measures
Earth	<p>Geology</p> <p>Construction:</p> <p>Complete several test borings to determine whether piles could be placed without damage. The purpose of this testing would be two-fold: 1) it is necessary to determine that the piles can be driven into the bearing soils to the required embedment depth without damaging the pile and 2) it is required to load test the resulting piles to determine that adequate bearing capacity is being developed.</p> <p>Operation:</p> <p>There would be no long-term operational mitigation measures for geology.</p> <p>Soils</p> <p>Construction:</p> <ul style="list-style-type: none"> <li>Planned best management practices (BMPs) include those from stormwater management guidelines applicable to eastern Washington.</li> <li>If excavated site soils are to be used as structural fill, they would be protected from moisture while stockpiled.</li> <li>Stockpiled topsoil would not be mixed with structural fill, if it is planned for use in non-structural areas.</li> <li>Temporary excavations like utility excavations and foundation excavations with heights in excess of 4 feet would be sloped no steeper than 1.5H:1V. If seepage is observed in these excavations, they may need to be sloped at 2H:1V to prevent sloughing due to seepage pressure. Dewatering measures may also be needed to control seepage.</li> <li>Temporary construction ingress and egress would be completed prior to the start of ongoing construction traffic at the solar project site. A temporary construction entrance would be constructed of 8 to 12 inches of quarry spalls. If the soils in the entrance locations are soft, a layer of geotextile fabric would be laid down as a barrier prior to placement of quarry spalls. The quarry spalls would provide a stable entrance/exit to the site and would limit tracking of mud onto the existing public and private roads during and after wet weather.</li> <li>Infiltration and temporary erosion and sedimentation control (TESC) measures would consist of installation of silt fencing as needed around the solar project site entrance, around the perimeter of the low side of the site, and at discharge points where sediment-laden surface water might enter off-site</li> </ul>

Technical Resource	Mitigation Measures
	<p>drainage features. Because the solar project site is flat and slopes very gently to the south, silt fencing would probably not be necessary at the southern perimeters.</p> <p>Operation: Planned BMPs include those from stormwater management guidelines applicable to eastern Washington.</p> <p>Topography, Unique Physical Features, and Seismic Activities Construction and Operation: No mitigation measures are proposed for these technical resources because there would be no significant impacts from the proposed solar project related to these resources.</p>
Air	<p>Construction: Dust from access roads would be controlled by applying gravel or watering, as necessary.</p> <p>Operation: There would be no long-term operational mitigation measures for air.</p>
Water	<p>Water Resources Construction: TE – Columbia Solar utilized avoidance measures during the solar project design to avoid, reduce, or eliminate impacts to water resources. At unavoidable crossings of water resources, TE – Columbia Solar would utilize the existing bridge infrastructure to the extent possible and, where bridge improvements are needed, techniques would be utilized that would not require impacting water resources below their ordinary high water marks (OHWMs), such as spanning existing bridges. Proper BMPs to reduce or eliminate runoff of contaminants would be utilized, including the proper use of silt fencing, to protect water resources from contamination and sedimentation.</p> <p>Operation: Once construction is completed, seeding would be conducted in accordance with the Restoration and Vegetation Management Plan to reduce erosion of bare ground. Once the solar project site has been adequately re-vegetated, the operational use of the solar project site would be limited to the installed infrastructure and would not involve any activities that could affect water resources.</p> <p>Surface Water Construction and Operation: The mitigation measures for Soils (above) and Runoff/Absorption (below) would also reduce the potential for significant surface water impacts.</p> <p>Runoff/Absorption Construction: Off-site flows have been calculated for the solar project site, and would bypass the site via the existing flow paths, which run throughout the site in poorly defined flow paths. The solar project site has been laid out to minimize the area that would encroach into the flow paths. Where limited grading would occur, the solar project site would be graded such that surface water is directed away from structures and slopes. Surface water would not be allowed to pond near the tops or toes of slopes. Stormwater discharge BMPs would be implemented to control runoff from the solar project site. Sediment-laden surface water would be treated such that water discharged from the solar project site meets all water quality standards. Stormwater would not be discharged over the project site slopes to the north of the site.</p> <p>Operation: The measures implemented during the operation phase would be the same as those discussed above for the construction phase of the project.</p>

Technical Resource	Mitigation Measures
Habitat, Vegetation, Fish, and Wildlife	<p><b>Floodplains</b></p> <p>Construction:</p> <p>TE – Columbia Solar utilized avoidance measures during the solar project design to avoid, reduce, or eliminate impacts to the FEMA-mapped 100-year floodplain within the Penstemon Solar Project site.</p> <p>In areas of the FEMA-mapped 100-year floodplain that would be unavoidable, TE – Columbia Solar would limit site grading, except in areas where roads and transformers would be located, so as not to substantially alter the floodplain storage area. All transformers would be located outside of the FEMA-mapped 100-year floodplain.</p> <p>Footings for the solar panel modules would be installed using pile-driven H-piles, which would not result in any soil spoil piles and would minimize the overall footprint of the solar panel modules.</p> <p>Operation:</p> <p>Once construction is completed, no additional measures would need to be taken to mitigate for the operational use of the solar project site, which would be limited to the installed infrastructure and would have minimal changes in elevation or grade in FEMA-mapped 100-year floodplain areas.</p> <p><b>Groundwater</b></p> <p>Construction:</p> <p>Groundwater control measures would be on-site or readily available, including trash pumps, sumps, and discharge ditches.</p> <p>Operation:</p> <p>Groundwater control measures would be on-site or readily available, including trash pumps, sumps, and discharge ditches.</p>
	<p>Construction:</p> <p>Buffers and Seasonal Timing:</p> <p>To ensure compliance with MBTA, vegetation clearing would ideally be undertaken from August 1 through the end of February.</p> <p>If construction or vegetation clearing is required between March 1 and August 1, nest surveys would be required in the proposed area of disturbance. If active migratory bird nests (including raptor nests) are encountered during the surveys, land-disturbing construction activities should be avoided while the birds are allowed to fledge. An appropriate species avoidance buffer, as determined in conjunction with WDFW and local agencies, would apply to all active nests for migratory bird species.</p> <p>Riparian Corridors:</p> <p>Avoidance buffers have been incorporated into the solar project design for streams in the vicinity of the proposed solar project.</p> <p>To additionally protect riparian corridors and habitats, peak construction activities would be conducted during the dry season as much as possible, to minimize erosion, sedimentation, and soil compaction.</p> <p>Noise:</p> <p>All noise-generating construction activities would be conducted between the hours of 7 a.m. and 10 p.m., in accordance with WAC 173-60-050 and local bylaws and noise ordinances, including but not limited to KCC 9.45.010, Public Disturbance Noises. These practices would avoid night-time noise disturbances to wildlife species.</p> <p>Design and Construction Techniques:</p> <p>Avoid, when possible, construction in sensitive areas such as riparian zones and wetlands.</p> <p>Flag sensitive habitat areas (e.g., raptor nests, wetlands, etc.) near proposed areas of construction activity, and designate such areas as off limits to all construction personnel.</p> <p>During the nesting season, monitor raptor nests within 0.25 mile of the site for nesting activity; coordinate construction timing and activities with WDFW to avoid impacts to nesting raptors.</p> <p>Minimize new road construction by improving and using existing roads and trails, instead of constructing new roads.</p>

Technical Resource	Mitigation Measures
	<p>Develop and implement a Fire Control Plan, in coordination with local fire districts, to minimize the risk of accidental fires during construction, and respond effectively to any fire that does occur.</p> <p>Designate an environmental monitor during construction to monitor construction activities and ensure compliance with mitigation measures.</p> <p>Implement a trenching protocol during the installation of underground electrical facilities, to allow for conservation of surface soils.</p> <p>Require construction personnel to avoid driving over or otherwise disturbing areas outside of the designated construction areas.</p> <p>Properly store and manage all wastes generated during construction.</p> <p>Use certified weed-free straw bales during construction to avoid introduction of noxious or invasive weeds.</p> <p>There would be one straight row of barbed wire, not circular barbed wire, at the top of the perimeter fences. This would avoid birds becoming trapped in circular barbed wire.</p> <p>For poles installed by TE – Columbia Solar, when feasible:</p> <p>equip overhead power lines with raptor perch guards to minimize risks to raptors and</p> <p>space overhead power line conductors to minimize potential for raptor electrocution.</p> <p>Erosion and Sediment Control:</p> <p>Use BMPs to minimize construction-related surface water runoff and soil erosion.</p> <p>Implement temporary erosion and sediment control measures, as appropriate, both during and after construction.</p> <p>Flag sensitive habitat areas (e.g., riparian zones, wetlands, etc.) near proposed areas of construction activity, and designate such areas as off limits to all construction personnel.</p> <p>Limit disturbances to the minimum necessary when working in or near waterbodies, and install stakes or flagging to restrict vehicles and equipment to designated routes and areas.</p> <p>Delineate construction limits within 200 feet of waterbodies, as specified in the stormwater pollution prevention plan (SWPPP), with a sediment fence, straw wattles, or similarly approved methods to eliminate sediment discharge into waterways and wetlands, minimize the size of construction disturbance areas, and minimize removal of vegetation, to the greatest extent possible.</p> <p>Restoration and Noxious Weed Control:</p> <p>Quickly revegetate habitats temporarily disturbed during construction with native species.</p> <p>Reseed all temporarily disturbed areas with an appropriate mix of native plant species as soon as possible after construction is completed, to accelerate the revegetation of these areas and to prevent the spread of noxious weeds.</p> <p>Consult with WDFW regarding the appropriate native seed mixes to include in the Vegetation Management Plan for revegetation of the solar project site.</p> <p>As further detailed in the Vegetation Management Plan, implement noxious weed control measures.</p> <p>Develop a Noxious Weed Control Plan prior to construction, and implement the plan over the life of the solar project as mitigation. Herbicide application could be a noxious weed control method used.</p> <p>Operation:</p> <p>Fire Control Plan:</p> <p>Implement the Fire Control Plan in coordination with local fire districts, to minimize the risk of accidental fires during operation, and respond effectively to any fire that does occur.</p> <p>Erosion and Sediment Control:</p> <p>Use BMPs to minimize operation-related surface water runoff and soil erosion.</p> <p>Noxious Weed Control:</p> <p>Implement the Noxious Weed Control Plan (as further detailed in the Vegetation Management Plan) over the life of the solar project as mitigation.</p>
Wetlands	<p>Construction:</p> <p>TE – Columbia Solar utilized avoidance measures during the solar project design to avoid, reduce, or eliminate impacts to wetlands.</p>

Technical Resource	Mitigation Measures
	<p>All wetlands would be avoided through the solar project design.</p> <p>Proper BMPs to reduce or eliminate runoff of contaminants would be utilized, including the proper use of silt fencing, to protect wetlands from contamination and sedimentation.</p> <p>Operation:</p> <p>Once construction is completed, seeding would be conducted in accordance with the Restoration and Vegetation Management Plan to reduce erosion of bare ground. Once the site has been adequately re-vegetated, the operational use of the solar project site would be limited to the installed infrastructure and would not involve any activities that could affect wetlands.</p> <p>Additional operational vegetation management actions would involve some minor herbicide treatments to control noxious weeds, potentially near wetland areas.</p>
Energy and Natural Resources	<p>Construction and Operation:</p> <p>Because there would be minimal or no construction or operational impacts to Energy and Natural Resources, no mitigation measures are proposed.</p>
Environmental Health	<p>Noise</p> <p>Construction:</p> <p>All noise-generating construction activities would take place within the hours of 7:00 a.m. to 10:00 p.m. so that it is exempt from local noise standards.</p> <p>Construction equipment would use noise reduction devices that are no less effective than those originally installed by the manufacturer.</p> <p>Stationary equipment used during construction would be located as far as practical from sensitive noise receptors.</p> <p>"Quiet" equipment (i.e., equipment that incorporates noise control elements into the design - compressors have "quiet" models) would be used during construction when reasonably available.</p> <p>Operation:</p> <p>Operation of the project would not exceed the Washington State Noise Maximum and no mitigation is required.</p> <p>Risk of Fire or Explosion</p> <p>Construction and Operation:</p> <p>Because there would be minimal risks and potential impacts of fire during construction or operation of the solar project site, and no risks of explosion, no mitigation measures are proposed.</p> <p>Spill Prevention and Control</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Spill Prevention and Control from the solar project site, no mitigation measures are proposed.</p> <p>Solid Wastes</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Solid Wastes from the solar project site, no mitigation measures are proposed.</p>
Land and Shoreline Use	<p>Land Use and Zoning</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Land Use and Zoning from the solar project site, no mitigation measures are proposed.</p> <p>Light and Glare</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to light and glare from the solar project site, no mitigation measures are proposed.</p>

Technical Resource	Mitigation Measures
	<p>Aesthetics</p> <p>General:</p> <p>Vegetation or fencing would be used to interrupt the line of sight from nearby key observation points (KOPs) at or near the same elevation of the project.</p> <p>Penstemon Solar Project site – along the northern and western borders of the site.</p> <p>Vegetation and ground disturbance would be minimized near roads, and the use of existing clearings would be maximized.</p> <p>The use of non-necessary and/or non-safety-related signs and project construction signs should be minimized; necessary signs would be made of non-glare materials and use unobtrusive colors; reverse sides of signs and mounts would be painted or coated using the most suitable color to reduce color contrasts with the existing landscape; however, placement and design of any signs required by safety regulations must conform to regulatory requirements.</p> <p>“Good housekeeping” procedures would be developed to ensure that the site is kept clean of debris, garbage, fugitive trash or waste, and graffiti; to prohibit scrap heaps and dumps; and to minimize storage yards. Design features regarding waste management would be applied.</p> <p>A lighting plan would be prepared that documents how lighting would be designed and installed to minimize night-sky impacts during facility construction and operations phases. Lighting for facilities would not exceed the minimum number of lights and brightness required for safety and security, and would not cause excessive reflected glare. Full cut-off luminaires would be used to minimize upward shining lighting. Lights would be directed downward or toward the area to be illuminated. Light fixtures would not spill light beyond the project boundary. Lights in high illumination areas not occupied on a continuous basis would have switches, timer switches, or motion detectors so that the lights operate only when the area is occupied. Where feasible, vehicle-mounted lights would be used for night maintenance activities. Wherever feasible, consistent with safety and security, lighting would be kept off when not in use. The lighting plan would include a process for promptly addressing and mitigating complaints about potential lighting impacts.</p> <p>The solar site would be adequately screened by either existing or new vegetation or through the application of perimeter fencing to reduce contrast from glint and glare for KOPs with level views.</p> <p>Construction:</p> <p>Project developers would integrate visual and aesthetics mitigation elements early in the construction, which may include treatments such as thinning and feathering vegetation along project edges, salvaging landscape materials from within construction areas, etc.</p> <p>Visual impacts would be reduced during construction by clearly delineating construction boundaries. Within areas not intended for long-term use, impacts would be reduced by minimizing areas of surface disturbance within those boundaries; preserving vegetation to the greatest extent possible; using undulating surface disturbance edges; controlling erosion; using fugitive dust suppression techniques; and restoring exposed soils to their original contour and vegetation.</p> <p>An interim reclamation plan would be in place prior to construction. Interim reclamation of the construction site would begin immediately after construction to reduce the likelihood of visual contrasts associated with erosion and invasive weed infestation and to reduce the visibility of impacted areas as quickly as possible.</p> <p>Existing rocks, vegetation, and drainage patterns would be preserved to the maximum extent practicable, particularly within temporary use areas.</p> <p>Brush-beating or mowing, or using protective surface matting rather than vegetation removal would be done where feasible.</p> <p>For interim reclamation areas, slash from vegetation removal would be mulched and spread to cover fresh soil disturbances as part of the revegetation plan. Slash piles would not be left in sensitive viewing areas.</p> <p>No paint or permanent discoloring agents would be applied to rocks or vegetation to indicate surveyor construction activity limits, except in areas defined and designated for disturbance.</p> <p>All stakes and flagging would be removed from the construction area and disposed of in an approved facility.</p> <p>Operation:</p> <p>The project developer would maintain revegetated surfaces until a self-sustaining stand of vegetation is re-established and visually adapted to the undisturbed surrounding vegetation. For new areas of disturbance (beyond the scope of this project), no new disturbance would be created during operation.</p> <p>Interim restoration would be undertaken during the operating life of the project as soon as possible after disturbances.</p> <p>Maintenance activities would include noxious weed control.</p> <p>Road maintenance activities would avoid blading existing vegetation in ditches and adjacent to roads.</p>

Technical Resource	Mitigation Measures
	<p>Painted facilities would be kept in good repair and repainted when color fades or flakes increase visual contrast.</p> <p>Recreation Construction and Operation: Because there would be no construction or operational impacts to Recreation from the solar project site, no mitigation measures are proposed.</p> <p>Cultural and Historical Preservation Construction: SWCA recommends that an Inadvertent Discovery Plan be prepared for the solar project site prior to project construction, to inform construction personnel what to do in the event that previously unidentified cultural resources are discovered during excavation. In addition, it is understood that DAHP may recommend additional mitigation measures after reviewing the reports on the cultural resource surveys conducted for the proposed solar project.</p> <p>Operation: Because there would be no operational impacts to Cultural and Historic Preservation, no mitigation measures are proposed.</p> <p>Agriculture Construction and Operation: Because there would be no construction or operational impacts to Agriculture from the solar project site, no mitigation measures are proposed.</p>
Transportation	<p>Vehicles Construction: Because there would be less than a 5% increase in average daily traffic volumes and, thus, no impacts to vehicle traffic for the project site, no mitigation measures are proposed.</p> <p>Operation: Because there would be minimal operational staff levels and vehicle trips, and no negative impacts from the solar project site, no mitigation measures are proposed.</p> <p>Waterborne, Rail, and Air Traffic Construction and Operation: Because there would be no construction or operational impacts to Waterborne, Rail, or Air Traffic from the solar project site, no mitigation measures are proposed.</p> <p>Parking Construction and Operation: Because there would be no construction or operational impacts to Parking from the solar project site, no mitigation measures are proposed.</p>
Socioeconomics	<p>Employment, Housing: Tax Revenues, Fire Protection, Police, Schools, Parks and Recreation, Utilities, Maintenance, Communications, Water and Stormwater, Sewer and Solid Waste, Other Governmental Services, and Local Government Revenues Construction and Operation: Because there would be minimal or no construction or operational impacts to these socioeconomic characteristics, public services, or public infrastructure from the solar project site, no mitigation measures are proposed.</p>

## **APPENDIX A**

### **Applicable Requirements from the Columbia Solar Project Site Certification Agreement**



# **APPLICABLE REQUIREMENTS FROM THE COLUMBIA SOLAR PROJECT SITE CERTIFICATION AGREEMENT**

## ***Article III.H – Site Restoration***

The Certificate Holder is responsible for site restoration pursuant to the Council's rules, WAC 463-72, in effect at the time of submittal of the Application. The Certificate Holder shall develop an Initial Site Restoration Plan in accordance with the requirements set out in Article JY.D of this Agreement and in consultation with WDFW, and submit it to EFSEC for approval. The Certificate Holder may not begin Site Preparation or Construction until the Council has approved the Initial Site Restoration Plan, including the posting of all necessary guarantees, securities, or funds associated therewith. The Certificate Holder shall submit a detailed Site Restoration Plan to EFSEC for approval prior to decommissioning in accordance with the requirements of Article VUI.A of this Agreement.

## ***Article IV.D – Initial Site Restoration Plan***

The Certificate Holder is responsible for Site decommissioning and restoration pursuant to Council rules. The Certificate Holder shall develop an Initial Site Restoration Plan, pursuant to the requirements of WAC 463-72-040 in effect on the date of Application, in consultation with EFSEC staff and WDFW. The Certificate Holder shall submit the Initial Site Restoration Plan to the Council for review at least ninety (90) days prior to the beginning of Site Preparation. The Certificate Holder shall not begin Site Preparation prior to obtaining approval of the Initial Site Restoration Plan from the Council. The Initial Site Restoration Plan shall be prepared in sufficient detail to identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated by the Certificate Holder on the date the Plan is submitted to EFSEC. The initial Site Restoration Plan shall describe the process used to evaluate the options and select the measures that will be taken to restore or preserve the Site Location or otherwise protect the public against risks or danger resulting from the Site. The Initial Site Restoration Plan shall include a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk, and shall address provisions for funding or bonding arrangements to meet the Site Location restoration or management costs. The Initial Site Restoration Plan shall be prepared in detail commensurate with the time until restoration is to begin. The scope of proposed monitoring shall be addressed in the Initial Site Restoration Plan.

The objective of the Plan shall be to restore each Site Location to approximate pre-Project condition or better. The Plan shall require removal of the solar panels and rack mounting system, foundations, cables, and other facilities to a depth of four feet below grade, and restoration of any disturbed soil to the pre-construction condition.

The Plan shall include the following elements:

1. Decommissioning Timing and Scope, as required by Article V11I.C of this Agreement.
2. Decommissioning Funding and Surety, as required by Article VIII.D of this Agreement.
3. Mitigation measures described in the Revised Application and this Agreement.
4. A plan that addresses both the possibility that restoration will occur prior to, or at the end of, the useful life of the Site and also the possibility of the Site being suspended or terminated during construction.

5. A description of the assumptions underlying the plan. For example, the plan should explain the anticipated useful life of the Site, the anticipated time frame of restoration, and the anticipated future use of the Site Location.
6. An initial plan for demolishing facilities, salvaging equipment, and disposing of waste materials.
7. Performing an on-site audit, and preparing an initial plan for disposing of hazardous materials (if any) present on the Site Location and remediation of hazardous contamination (if any) at the Site Location. In particular, if the Certificate Holder constructs the Site with solar panels incorporating hazardous materials, such as Cadmium Telluride, then the Certificate Holder shall use appropriate precautions during decommissioning and removal of the solar panels to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the panels' hazardous materials.
8. An initial plan for restoring the Site Location, including the removal of structures and foundations to four feet below grade and the restoration of disturbed soils.
9. Provisions for preservation or removal of Site facilities if the Site is suspended or terminated during construction.

## **Article VIII – PROJECT TERMINATION, DECOMMISSIONING AND SITE RESTORATION**

### ***Article VIII.A – Detailed Site Restoration Plan***

The Certificate Holder shall submit a Detailed Site Restoration Plan to EFSEC for approval within ninety (90) days from the time the Council is notified of the termination of the Site. The Detailed Site Restoration Plan shall provide for restoration of the Site Location within the timeframe specified in Article VIII.C, taking into account the Initial Site Restoration Plan and the anticipated future use of the Site Location. The Detailed Site Restoration Plan shall address the elements required to be addressed by WAC 463-72-020, and the requirements of the Council approved Initial Site Restoration Plan pursuant to Article IV.D of this Agreement. The Certificate Holder shall not begin Site Restoration activities without prior approval from the Council. The Certificate Holder shall consult with WDFW, and Ecology in preparation of the Detailed Site Restoration Plan.

### ***Article VIII.B – Site Termination***

1. Termination of this Site Certification Agreement, except pursuant to its own terms, is an amendment of this Agreement.
2. The Certificate Holder shall notify EFSEC of its intent to terminate the Site, including by concluding the plant's operations, or by suspending construction and abandoning the Site.
3. The Council may terminate the SCA through the process described in WAC 463-66-090, and the Council may initiate that process where it has objective evidence that a certificate may be abandoned or when it deems such action to be necessary, including at the conclusion of the plant's operating life, or in the event the Site is suspended or abandoned during construction or before it has completed its useful operating life.

## **Article VIII.C – Site Restoration Timing and Scope**

Site Restoration shall be conducted in accordance with the commitments made in the draft Site Restoration Plan attached as Appendix F to the Application, and the Detailed Site Restoration Plan required by Article VIII.A (unless the Certificate Holder fails to submit such a plan), and in accordance with the following measures:

1. Timing. The Certificate Holder shall commence Site Restoration of the Site within twelve ( 12) months following the termination described in Article VIII.B above.

The period to perform the Site Restoration may be extended if there is a delay caused by conditions beyond the control of the Certificate Holder including, but not limited to, inclement weather conditions, equipment failure, wildlife considerations, or the availability of cranes or equipment to support decommissioning.

2. Scope. Site Restoration shall involve removal of the solar panels and mounting structures; removal of foundations or other Site facilities to a depth of four (4) feet below grade; restoration of any disturbed soil to pre-construction condition; and removal of Project access roads and overhead poles and transmission lines (except for any roads and/or overhead infrastructure that Site Location landowner wishes to retain) (all of which shall comprise "Site Restoration"). Site Restoration shall occur in the order of removing the solar panels as the first priority and performing the remaining elements immediately thereafter. If the Certificate Holder constructs the Site with solar panels incorporating hazardous materials, such as Cadmium Telluride, Site Restoration shall also include the use of appropriate precautions during decommissioning and removal of the solar panels to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the panels' hazardous materials.
3. Monthly Reports. If requested by EFSEC, the Certificate Holder shall provide monthly status reports until this Site Restoration work is completed.
4. Restoration Oversight. At the time of Site Restoration, the Site Location will be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site location. Success criteria for Site Restoration will be established prior to commencement of decommissioning activities, based on the documented preconstruction conditions, experience gained with re-vegetation during operation and the condition of the Site Location at the time of Site Restoration. The restoration success criteria will be established in the Detailed Site Restoration Plan approved by EFSEC in consultation with the designated biologist. Once restoration of the Site Location is determined to be complete, a final report of restoration activities and results will be submitted.

## **Article VIII.D – Site Restoration Financial Assurance**

1. Except as provided in Article VII I.D.3 below, the Certificate Holder or any Transferee, as the case may be, shall provide financial assurance sufficient, based on detailed engineering estimates, for required Site Restoration costs in the form of a surety bond, irrevocable letter of credit, or guaranty. The Certificate Holder shall include a detailed engineering estimate of the cost of Site Restoration in its Initial Site Restoration Plan submitted to EFSEC. The estimate must be based on the costs of the Certificate Holder or Transferee hiring a third party to carry out Site Restoration. The estimate may not be reduced for " net present value" or other adjustments. During the active life of the facility, the Certificate Holder or Transferee must adjust the Site Restoration cost estimate for inflation within sixty days prior to the anniversary date of the

establishment of the financial instrument used to provide financial assurance and must increase the financial assurance amount accordingly to ensure sufficient funds for Site Restoration.

2. The duty to provide such financial assurance shall commence thirty (30) days prior to the beginning of Construction of the Site, and shall be continuously maintained through to the completion of Site Restoration. Construction of the Site shall not commence until adequate financial assurance is provided. On or before the date on which financial assurance must be established, the Certificate Holder shall provide EFSEC with one of the following financial assurance mechanisms that is reasonably acceptable to EFSEC:
  - a. *Surety Bond*. The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through a Surety Bond issued by a surety listed as acceptable in Circular 570 of the U.S. Department of the Treasury. The Performance Bond shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be established by the Certificate Holder or Transferee to receive any funds that may be paid by the surety to be used to complete Site Restoration. The surety shall become liable for the bond obligation if the Certificate Holder or Transferee fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least one hundred twenty days after the Certificate Holder or Transferee and EFSEC have received notice of cancellation. If the Certificate Holder or Transferee has not provided alternate financial assurance acceptable under this SCA within ninety days of the cancellation notice, the surety shall pay the amount of the bond into the standby Site Restoration trust; or
  - b. *Irrevocable Letter of Credit*. The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through an irrevocable letter of credit payable to or at the direction of EFSEC, that is issued by an institution that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency. The letter of credit shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be established by Certificate Holder or Transferee to receive any funds deposited by the issuing institution resulting from a draw on the letter of credit. The letter of credit shall be irrevocable and issued for a period of at least one year, and renewed annually, unless the issuing institution notifies the Certificate Holder or Transferee and EFSEC at least one hundred twenty days before the current expiration date. If the Certificate Holder or Transferee fails to perform Site Restoration, or if the Certificate Holder or Transferee fails to provide alternate financial assurance acceptable to EFSEC within ninety days after notification that the letter of credit will not be extended, EFSEC may require that the financial institution provide the funds from the letter of credit to be used to complete Site Restoration; or
  - c. *Guaranty*. Certificate Holder or any Transferee, as the case may be, shall provide financial assurance for the performance of its Site Restoration obligations by delivering a guaranty to fund the Certificate Holder or Transferee's Site Restoration obligations hereunder from an entity that meets the following financial criteria:
    - i. A current rating of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;
    - ii. Tangible net worth at least six times the sum of the current Site Restoration cost estimates;

- iii. Tangible net worth of at least ten million dollars; and
- iv. Assets in the United States amounting to at least ninety percent of its total assets or at least six times the sum of the current Site Restoration cost estimates.

The guarantor entity's chief financial officer shall provide a corporate guaranty that the corporation passes the financial test at the time the Initial Site Restoration Plan is filed. This corporate guaranty shall be reconfirmed annually ninety days after the end of the corporation's fiscal year by submitting to EFSEC a letter signed by the guaranteeing entity's chief financial officer that:

- i. Provides the information necessary to document that the entity passes the financial test;
- ii. Guarantees that the funds to finance required Site Restoration activities are available;
- iii. Guarantees that required Site Restoration activities will be completed;
- iv. Guarantees that within thirty days if written notification is received from EFSEC that the entity no longer meets the above financial criteria, the entity shall provide an alternative form of financial assurance consistent with the requirements of this section;
- v. Guarantees that the entity's chief financial officer will notify in writing the Certificate Holder or Transferee and EFSEC within fifteen days any time that the entity no longer meets the above financial criteria or is named as debtor in a voluntary or in voluntary proceeding under Title 11 U.S.C. Bankruptcy;
- vi. Acknowledges that the corporate guaranty is a binding obligation on the corporation and that the chief financial officer has the authority to bind the corporation to the guaranty;
- vii. Attaches a copy of the independent certified public accountant's report on examination of the entity's financial statements for the latest completed fiscal year; and
- viii. Attaches a special report from the entity's independent certified public accountant (CPA) stating that the CPA has reviewed the information in the letter from the entity's chief financial officer and has determined that the information is true and accurate.

If the Certificate Holder or any Transferee fails to perform Site Restoration covered by the guaranty in accordance with the approved Initial or Final Site Restoration plan, the guarantor will be required to complete the appropriate activities. The guaranty will remain in force unless the guarantor sends notice of cancellation by certified mail to the Certificate Holder or Transferee and EFSEC. Cancellation may not occur, however, during the one hundred twenty days beginning on the date of receipt of the notice of cancellation by the Certificate Holder or Transferee and EFSEC. If the Certificate Holder or Transferee fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from EFSEC within ninety days after receipt of a notice of cancellation of the guaranty from the guarantor, the guarantor

will provide such alternative financial assurance in the name of the Certificate Holder or Transferee.

3. If the SCA is transferred after its effective date pursuant to applicable EFSEC laws and regulations, EFSEC has the right to require, consider, and approve other financial security that would provide for the Certificate Holder's performance of its Site Restoration obligations pursuant to Articles VIII.C and VIII.D of this Site Certification Agreement.

## **APPENDIX B**

### **Cost Estimate of Decommissioning and Site Restoration**

# **COST ESTIMATE OF DECOMMISSIONING AND SITE RESTORATION**

Cost estimates for decommissioning and site restoration for the Penstemon Solar site is included in Table B-1. These costs include the removal, recycling, and disposal of the system components as well as any grading and reseeded that would be required to return the site to pre-project conditions following equipment removal. Cost estimates were developed based on current prices for similar sized utility scale solar projects, the assumptions outlined below, and those listed in Tables 1-3 for each task.

Most materials from solar installations may be recycled, reused, or even sold resulting in no costs or compensation. A periodic reevaluation of decommissioning costs during the project's lifetime is recommended as costs could decrease and revenue from recyclable materials could fluctuate. The cost estimates included in Table B-1 do not account for the offsets to costs from recycling or reselling project components.

## **Assumptions**

- Labor costs are estimated at \$30 per hour and equipment costs are estimated at \$150 per hour.
- System electrical equipment including inverters, transformers and switchgear to be removed from their respective concrete pads and recycled or returned to their manufacturer for processing. The project contains large amounts of copper, aluminum, and other conductive metals, which are easily recyclable.
- Chain link fencing to be removed and sold or recycled.
- Solar photovoltaic modules will be detached from the racking system, stacked for removal, and recycled or reused.
- Sections of the racking system will be cut, stacked, and recycled. Racking posts will be removed, stacked and recycled.
- The concrete pads will be lifted, secured onto flat beds, and transported off-site for processing.
- AC and DC wiring that can be disconnected and removed from equipment and earth will be consolidated for recycling. Direct buried conductors and PVC conduit that would require substantial soil disturbance for removal is excluded.
- All non-recyclable materials will be taken to the nearest approved landfill for disposal.
- On site power poles and medium voltage wiring shall be dug out and removed.
- All resulting depressions, voids, and excavation areas will be backfilled, and graded to the proper elevation. Backfilling and compaction of disturbed areas are included.
- All disturbed areas associated with the array will be re-vegetated in effort to return the landscape of the earth as close to its previous state as possible. This includes the gravel access drives within the fenced area, unless otherwise requested by the landowner. This estimate does not include any tree planting.
- The electric lines are property of the local utility and are not subject to this study.



**Table B-1. Estimated Decommissioning Cost for the Penstemon Solar Project**

Task	Unit	Quantity	Labor Cost	Equipment Cost	2021 Cost± for 5 MW project	Assumption
Remove Rack Wiring	Linear foot (l.f.)	3536	\$2,063	\$10,313	\$12,376	10 minutes per 10 l.f.
Remove Panels	module	13,843	\$1,154	\$5,768	\$6,922	5 minutes per module
Dismantle Racks and posts to 4 feet below grade	posts	5130	\$12,828	\$64,122	\$76,950	5 minutes per post
Remove electrical equipment	MW	5	\$750	\$3,750	\$4,500	1 hour per MW
Breakup/Remove Conc. Pads/ballast	pads	6	\$750	\$3,750	\$4,500	1.5 hour per pad
Remove Cable and Underground Conduit	l.f.	2489	\$2,075	\$10,370	\$12,445	15 minutes per 10 l.f.
Remove Fence	l.f.	4980	\$1,245	\$6,225	\$7,470	5 minutes per 10 l.f.
Remove Access Roads	acre	0.37	\$2,467	\$12,333	\$14,800	72 hours for 0.5 acre
Re-grading and seeding	acre	40	\$600	\$3,000	\$3,600	30 minutes per acre
Truck to Recycling Center (offsite disposal)	Loads (lump sum)	3	-	-	\$9,000	Lump sum of \$3,000 per trip.
Erosion Control install and disposal	l.f.	500	-	-	\$750	Lump sum \$1.50 per foot.
<b>Current Total</b>					<b>\$153,313</b>	
<b>Total After 40 Years (2.5% infl.)</b>					<b>\$258,348</b>	

## **APPENDIX C**

### **Pre-construction Vegetation Photographs**



**Photo 1. Penstemon Solar Project site.**



**Photo 2. Penstemon Solar Project site.**





**Photo 3. Penstemon Solar Project site.**



**Photo 4. Penstemon Solar Project site.**

The logo for SWCA (Soil & Water Conservation Agency) is positioned vertically on the left side of the page. It consists of the letters 'S', 'W', 'C', and 'A' in a large, stylized, light blue font, stacked one above the other.

# Columbia Solar Projects, Urtica Solar Project Initial Site Restoration Plan

MAY 2021

PREPARED FOR

**TE – Columbia Solar, LLC**

PREPARED BY

**SWCA Environmental Consultants**



# **COLUMBIA SOLAR PROJECTS, URTICA SOLAR PROJECT INITIAL SITE RESTORATION PLAN**

Prepared for

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SWCA Project No. 60978

May 2021





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# **1 INTRODUCTION**

TE – Columbia Solar, LLC (TE – Columbia Solar), a subsidiary of TUUSSO Energy LLC, will construct, own and operate a 5-MW alternating current (AC) solar photovoltaic (PV) power generation facility and associated electrical interconnection facilities (Urtica Solar Project), one of three Columbia Solar Projects. The Urtica Solar Project is located on approximately 51 acres of privately owned agricultural land located in rural Kittitas County in central Washington. The project would connect into the existing Puget Sound Energy (PSE) distribution transmission line along Umptanum Road. The Urtica Solar Project will be located approximately 0.2 mile north of the intersection of Umptanum Road and Manastash Road, in Section 10, Township 17 North, Range 18 East, Willamette Meridian (Figure 1). The project site is within the Upper Yakima subbasin and Water Resources Inventory Area (WRIA 39; Hydrologic Unit Code 17030001). The project would provide up to 5 MW of solar energy to PSE for use within its service area. Construction will begin in Spring 2021.

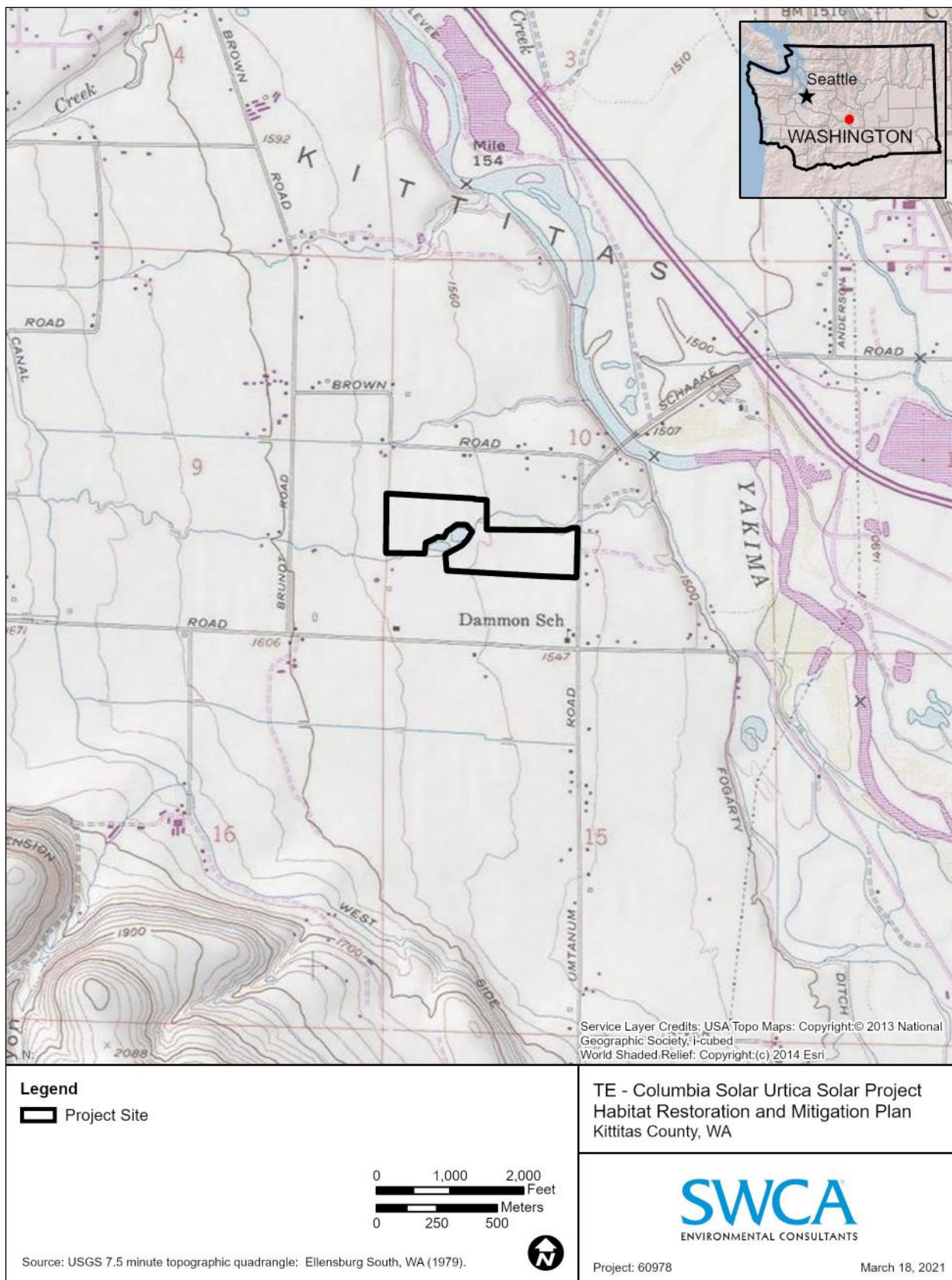


Figure 1. Urtica Solar Project location.

## **1.1 Purpose of Plan**

The purpose of this initial site restoration plan (ISRP) is to identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated by the TE – Columbia Solar in compliance with Article IV Part D of the Site Certification Agreement (SCA). This ISRP describes the process used to evaluate the options and select the measures that will be taken to restore or preserve the site location or otherwise protect the public against risks or danger resulting from the site. The plan includes a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk and addresses provisions for funding or bonding arrangements to meet the site location restoration or management costs.

## **2 PROJECT COMPONENTS**

The project's components subject to decommissioning include the equipment summarized below. These components are discussed in detail in the Mitigated Determination of Non-Significance (MDNS) for the project. The decommissioning activities associated with these components are discussed in Section 3.0 of this ISRP.

### **2.1 Site Construction Preparation**

Construction facilities will be located at the project site. Facilities will include the construction entrance/exit, all-weather access roads, and parking and staging areas for vehicle and equipment storage and maintenance. Laydown areas will be used for pre-assembly of components and materials storage/staging. The project site will also include areas for construction worker parking. Temporary construction offices will be installed on-site using modular trailers.

All-weather access roads will be built for access to inverter pads via new gates at the access points shown in the site plans.

Site access driveways and gates will remain in place for the operational phase of the project.

### **2.2 Well Water**

No well water will be obtained or used for the project. Dust control water for construction, fire protection water, and water for panel washing and for watering vegetation on-site will be obtained from water trucks bringing in off-site water or through the landowners' existing water rights on the project site.

### **2.3 Photovoltaic Equipment**

The PV equipment for the project will consist of approximately 50,000 PV panels mechanically fastened on steel support structures and driven by single axis trackers. The steel support structures will be supported on galvanized steel posts that will be driven into the ground. The tracker motors will be supported on cast-in-place foundations.

The construction methods for the preparation of the site and the installation of the panels shall be consistent with all approved SCA conditions for the project site. Should a discrepancy exist between the SCA for the project and the installation methods outlined below, the SCA shall govern.

Grading shall be limited mainly to the all-weather access roads, tanks, inverter pads, project switchyards, or other areas consistent with the approved exhibit map/grading plan. Per Article V.E.1, work within the area where the solar panels are proposed shall be conducted with minimal disturbance, and the operator shall take all necessary precautions to not use vehicles or machineries for grading or alter the existing grade in these areas.

When vehicles or machinery are deemed necessary for solar field installation work, appropriate ground-protection practices (such as construction mats, stabilizers, or established vegetation) shall be used for both dust suppression and to ensure that the vehicles or machineries are compatible with continued and future vegetation growth to the satisfaction of Energy Facility Site Evaluation Council (EFSEC). Any grading, disking, and scraping for access roads, walkways, required basins and/or berms shall be permanently stabilized with an earth-stabilizing product.

Contrary to conventional power plant design where the site has to be prepared to meet a set of pre-engineered contours, the construction approach will be to use existing contours where possible without significantly altering grades on the project site.

A light-on-land philosophy will be used for the grading and installation of the project. Several features of this philosophy are as follows:

- Preservation of property: Temporary fencing will be used to protect areas not to be disturbed.
- Existing improvements, properties, utilities, facilities, trees, and plants that are not to be removed will be protected from injury or damage. Construction materials and equipment will not be placed within the drip line of trees if any are encountered. Damaged trees, if any, will be replaced.
- Temporary staging areas will be used within the solar fields, and they will ultimately be built over with solar arrays. The areas will be seeded after construction is completed.
- Limited all-weather access roads through the solar fields will be constructed by compacting existing soil. Minimal fill will be used only when necessary.

## **2.4 Substation**

The project will be connected to an existing substation located off-site. The project will include on-site switchgear and protection and will be connected to an existing utility distribution line.

## **2.5 Internal Power Collection System**

The PV modules will convert sunlight into direct current (DC) electricity. The PV-generated DC power will be collected from each of the multiple rows of PV modules, from which it will be connected to multiple combiner boxes and ultimately to skids each containing multiple inverters and a distribution voltage transformer. The inverters will convert the DC power to AC power, which will then flow to the transformer that will increase the AC power voltage to 12.47 kV. Multiple transformers from multiple skids will be connected in parallel to on-site switchgear and protection equipment. The power will then be delivered to the existing aboveground PSE distribution lines.

## **2.6 Roads**

Access to the project site will be from public rights-of-way and private access roads. Access permits will be required when connecting to a county-owned rights-of-way. Construction of those access points will be in compliance with state and/or county requirements.

## **2.7 Vegetation During Operations**

Perimeter vegetation will be planted per the site plan and watered as required. Vegetation under the solar panels will be managed as per the SCA and other safety and operational requirements.

# **3 PROJECT DECOMMISSIONING AND RECYCLING**

The activities involved in the facility closure will depend on the expected future use of the project site. At the time of decommissioning, in addition to this ISRP, a detailed removal work plan and schedule and a site restoration plan, shall be filed with EFSEC as a discretionary site plan review, for review and approval by EFSEC. The removal work plan and schedule will describe the proposed equipment that will be removed and an associated schedule for such removal based on expected future uses of the project site. The currently envisaged plan involves completion of the decommissioning, excluding establishment of revegetation, in a 6-month period.

In general, decommissioning will attempt to maximize the recycling of all facility components. Specific opportunities for recycling (e.g., PV solar panels) are discussed below in the context of various site components. The individual project components to be decommissioned will be recycled to the maximum extent practical.

The key project components affected by decommissioning activities are discussed below. The general decommissioning approach will be the same whether a portion, or all of the project is decommissioned.

## **3.1 Evaluation Process**

When considering decommissioning of the project, the best option will be determined by comparing the estimated costs to refurbish or repower, the projected revenue from continued operations, and the potential risks to the public from either decommissioning, refurbishing, or repowering. While PV modules are not considered more hazardous than standard construction materials, any hazardous materials found in the components used to construct PV modules may pose a risk to humans and the environment if left in a state of disrepair or not disposed of correctly. Both refurbishing and repowering can cost almost as much as installing a new system, will require some disposal of hazardous materials, and may not be the best option if the project cannot be readily repaired or updated. If it does not make economic sense to repair or refurbish a project, decommissioning following industry best practices for correct recycling and disposal of materials could be the best option. Recycling and disposal procedures are described for each project component in Section 3.4, Decommissioning Plan.

Upon decommissioning, the Certificate Holder is required by the SCA to remove all project facilities and re-seed disturbed areas. Once facilities are removed, the decision on how to best recycle or dispose of materials will be based on which process poses the least risk to human health. Restoration activities will return the project site to a land use consistent with the surrounding land uses at the time of decommissioning.

The Certificate Holder will implement financial security instruments in the full anticipated amount of costs required to decommission the project, remove facilities and perform restoration activities. See Section 4 below and Appendix B.

## **3.2 Site Restoration Timing and Scope**

### **3.2.1 *Timing***

Per Article VIII.C.1, the Certificate Holder is required to begin decommissioning of the project within 12 months following project termination. Project termination can be triggered directly by the Certificate Holder, or if the Certificate Holder is required to terminate the project according to the requirements of Article VIII.B of the SCA. This plan assumes that decommissioning and restoration activities would occur at the end of the useful life of the project, but all activities outlined herein would be the same if required prior to that time or if the site was suspended or terminated during construction, as required in Article III.B.4.

The SCA allows the period to perform the decommissioning to be extended if there is a delay caused by conditions beyond the control of the Certificate Holder including, but not limited to, inclement weather conditions, equipment failure, wildlife considerations, or the availability of cranes or equipment to support decommissioning.

### **3.2.2 *Scope***

As required by Article VIII.C.2 of the SCA, decommissioning the project shall involve removal of the solar panels and mounting structures; removal of foundations or other site facilities to a depth of 4 feet below grade; restoration of any disturbed soil to preconstruction condition; and removal of project access roads and overhead poles and transmission lines (except for any roads and/or overhead infrastructure that the site location landowner wishes to retain) (all of which shall comprise *site restoration*). Removing the solar panels will be the first priority of site restoration and performing the remaining elements will occur immediately thereafter. If the Certificate Holder constructs the site with solar panels incorporating hazardous materials, such as cadmium telluride, site restoration shall also include the use of appropriate precautions during decommissioning and removal of the solar panels to safely dispose of, avoid, and, if necessary, remediate any soil contamination resulting from the hazardous materials as outlined in Article IV.D.7. Prior to the initiation of project decommissioning an on-site audit will be performed to identify and determine the appropriate method for disposing of hazardous materials (if any) present on the site. Location and remediation of hazardous contamination (if any) at the project location.

In the event that the Site is suspended during construction, the Applicant would plan to remove or secure all loose materials, tools, and equipment and protect any exposed soils with appropriate erosion control measures. If the Site is terminated during construction, the Applicant would decommission all in-place equipment and restore the site to pre-construction conditions in accordance with this plan. Specific Site suspension or termination measures would be developed in conjunction with the contractor in accordance with Article IV.D.9.

## **3.3 Site Restoration Financial Assurance**

In accordance with Article VIII.D.1 of the SCA, the Certificate Holder, or any Transferee, as the case may be, will provide financial assurance sufficient, based on detailed engineering estimates, for required site restoration costs in the form of a surety bond, irrevocable letter of credit, or guaranty. The anticipated



amount of this security will be based on the detailed engineering estimate of the cost of decommissioning shown in Appendix B of this plan.

Appendix B to this plan includes a cost estimate for decommissioning. In accordance with Article VIII.D.1 of the SCA, the decommissioning costs will be reevaluated annually during the active life of the facility. The Certificate Holder or Transferee must adjust the site restoration cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument used to provide financial assurance and must increase the financial assurance amount accordingly to ensure sufficient funds for site restoration.

The Certificate Holder will choose between one of the financial security instruments listed in Article VIII.D.2 at least 30 days prior to the beginning of construction of the site and will notify EFSEC of the type of instrument chosen. No later than 30 days before the beginning of construction, the Certificate Holder will have the chosen financial security instrument in effect, and the appropriate documentation of such security will be filed with EFSEC.

### **3.4 Decommissioning Plan**

TE – Columbia Solar shall submit a detailed Site Restoration Plan to EFSEC for approval at least 90 days prior to decommissioning in accordance with the requirements of Article VUI.A of the SCA. The following sections outline the preliminary decommissioning plan for the project.

#### **3.4.1 Decommissioning Preparation**

The first step in the decommissioning process will be to assess existing site conditions and prepare the project site for demolition, including preparation and submittal of the above referenced removal work plan and schedule for the components and provisions described below. Per Article IV.D.6 the initial demolition plan includes salvaging equipment to the greatest extent possible and disposing of waste materials.

Site decommissioning, excluding revegetation, can take 6 months. Establishment of revegetation on the project site will be the responsibility of the landowner for their agricultural or other approved land uses. The current land use of the project site is agricultural, and the site historically produced hay or served as pasture.

Demolition debris will be placed in a temporary on-site storage area for no more than 120 days with no more than one 120-day extension if determined necessary by EFSEC, pending final transportation and disposal/recycling according to the procedures listed below. The location of the temporary on-site storage area will be included on a site plan with the removal work plan and schedule and site restoration plan review submittal.

#### **3.4.2 Photovoltaic Equipment**

At the start of decommissioning, the project will be de-energized and disconnected from the distribution grid. During decommissioning, project components that are no longer needed will be removed from the site and recycled. The de-energized crystalline silicon PV panels will be unmounted from the torque tubes by sliding the panels off the mounting saddles once the rivet connectors are drilled out. The panels will then be collected into rear-loading garbage trucks and transported to a landfill facility or to a recycling center.

The torque tubes and any additional panel mounting hardware and rack supports will be removed in their entirety, to a depth of 4 feet below grade, from the site using cranes, dump trucks, and flatbed and rear-loader garbage trucks. Tracker motors and any tracker control equipment will be dismantled and recycled as per state e-waste recycling requirements. The support piers/posts will be removed by CAT excavators with attachments and recycled. Cranes will be used to remove any inverters and transformers, including the inverter skids and any foundations.

The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the on-site equipment being used. The majority will be processed for transportation to an off-site recycling center. All steel, copper, and aluminum will be recycled to the maximum extent possible.

### **3.4.3 Substation**

The project will be connected to an existing substation located off-site, therefore no decommissioning activities will be required. All on-site switchgear and protection equipment will be de-energized, dismantled, and removed from the project site using flatbed and rear-loader garbage trucks.

### **3.4.4 Water Tanks**

Any on-site water tanks for fire protection will be drained, detached, and loaded onto flatbed trucks by cranes during the decommissioning process. The water tanks will be salvaged for scrap metals.

### **3.4.5 Internal Power Collection System**

The combiner boxes that convey DC power generated from the solar arrays will be dismantled. The inverters that convert DC power to AC power and the transformers that increase the AC power voltage to 12.47 kV will also be dismantled and removed by cranes and flatbed trucks. Any insulating and cooling mineral oil and fluids from the transformers will be drained, removed from the site, and recycled or disposed of at an appropriately licensed disposal facility. The underground 12.47-kV cables and conduits that form the AC and DC collection systems, as well as any aboveground DC electrical wiring, will be removed and recycled. If any cable or conduit is left in place, the depth will be a minimum of 4 feet below grade to allow for future farming activities.

### **3.4.6 Transmission Line**

Generation tie lines that have been installed on existing poles will be removed and recycled.

### **3.4.7 Roads**

On-site access roads will remain in place to accomplish decommissioning at the end of the facility's life, which is assumed to be 40 years. At the time of decommissioning, if the landowner determines that some of these roads will be beneficial for future use of the site, such roads may remain after decommissioning. On-site roads will be compacted dirt roads or gravel roads. Roads that will not be re-used will be restored to preconstruction conditions. For any asphalt access driveways that will be removed, asphalt material will be broken up and removed to an appropriate disposal site. The landowners may choose to maintain the access driveways for farming purposes.

### **3.4.8 Fences**

Once the site has been fully restored according to Section 3.1 above, the chain-link fences and gates surrounding the project site can be removed and recycled.

## **4 SITE RESTORATION**

Once removal of project equipment is complete, the site will be restored to preconstruction conditions. The landowner will be responsible for the revegetation with the crop of their choice.

The restoration will be enhanced by the operational landscape revegetation and restoration plan outlined in Section 2.7, above. Fugitive dust control on remaining vacant land shall be met by preservation of the vegetation planted on-site during the operation phase.

Photographic documentation of the preconstruction vegetative conditions on the site is provided in Appendix C. At the time of decommissioning, the site will be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site. The decommissioning will leave the existing vegetation on-site and allow the landowner to determine the revegetation of the area for farming purposes. The landowner will also determine any fertilizers to apply that are applicable to the specific crop they choose to plant.

### **4.1 Restoration Plan**

All decommissioning shall occur in a manner where appropriate dust suppression can be achieved. Based on the site conditions, a biologist will develop a restoration plan acceptable to EFSEC at the time of decommissioning. Because of the limited disturbance to soils and site contours by the construction of the project, it is expected that restoration will largely involve reseeding by the landowner. De-compaction if required may involve disking or similar methods by the landowners. The project's land contours will be maintained similar to preconstruction conditions, as the panels will be constructed on the existing contours when possible.

### **4.2 Monitoring**

During the first growing season following site restoration, the project's biologist will coordinate with EFSEC on site-specific monitoring of the revegetated area, with landowner approval and consent. If the landowner consents, the biologist may monitor the revegetation for 3 years for data collection on the restoration efforts. The monitoring will not interfere with the landowner's farming operations.

### **4.3 Criteria for Restoration**

According to Article VIII.A, success criteria for site restoration will be established prior to commencement of decommissioning activities, based on the documented preconstruction conditions, experience gained with revegetation during operation, and the condition of the site at the time of decommissioning. The restoration success criteria will be established in the restoration plan submitted with the removal work plan and schedule to EFSEC in consultation with the designated biologist.

## 4.4 Reporting and Schedule

Acceptable levels of revegetation success and the schedule for achieving them could vary based on various factors such as soil, rainfall conditions, and farming operations. The revegetation success and scheduling of success monitoring efforts will be determined to the satisfaction of EFSEC and the designated biologist, with the cooperation of the landowner. The annual reports submitted to EFSEC of the project site will include copies of completed site review forms and a summary of monitoring data and results, and identification of site locations successfully revegetated by the landowner.

Once restoration of the project site is determined to be complete, a final report of restoration activities and results will be submitted to EFSEC, in consultation with the designated biologist, for review and approval.

## 5 MITIGATION MEASURES

During project decommissioning, and site restoration the Certificate Holder shall implement the mitigation measures set forth in the SCA, including, but not limited to, those presented in Section 1.10 of the Revised Application, those identified in the Final State Environmental Policy Act Environmental Checklist as commitments made by the Certificate Holder, and those presented in the Revised MDNS. Those mitigation measures are summarized in Table 1.

**Table 1. Summary of Mitigation Measures for the Urtica Solar Project's Potential Construction and Operational Impacts**

Technical Resource	Mitigation Measures
Earth	<p>Geology</p> <p>Construction:</p> <p>Complete several test borings to determine whether piles could be placed without damage. The purpose of this testing would be two-fold: 1) it is necessary to determine that the piles can be driven into the bearing soils to the required embedment depth without damaging the pile and 2) it is required to load test the resulting piles to determine that adequate bearing capacity is being developed.</p> <p>Operation:</p> <p>There would be no long-term operational mitigation measures for geology.</p> <p>Soils</p> <p>Construction:</p> <ul style="list-style-type: none"> <li>Planned best management practices (BMPs) include those from stormwater management guidelines applicable to eastern Washington.</li> <li>If excavated site soils are to be used as structural fill, they would be protected from moisture while stockpiled.</li> <li>Stockpiled topsoil would not be mixed with structural fill, if it is planned for use in non-structural areas.</li> <li>Temporary excavations like utility excavations and foundation excavations with heights in excess of 4 feet would be sloped no steeper than 1.5H:1V. If seepage is observed in these excavations, they may need to be sloped at 2H:1V to prevent sloughing due to seepage pressure. Dewatering measures may also be needed to control seepage.</li> <li>Temporary construction ingress and egress would be completed prior to the start of ongoing construction traffic at the solar project site. A temporary construction entrance would be constructed of 8 to 12 inches of quarry spalls. If the soils in the entrance locations are soft, a layer of geotextile fabric would be laid down as a barrier prior to placement of quarry spalls. The quarry spalls would provide a stable entrance/exit to the site and would limit tracking of mud onto the existing public and private roads during and after wet weather.</li> <li>Infiltration and temporary erosion and sedimentation control (TESC) measures would consist of installation of silt fencing as needed around the solar project site entrance, around the perimeter of the low side of the site, and at discharge points where sediment-laden surface water might enter off-site</li> </ul>

Technical Resource	Mitigation Measures
	<p>drainage features. Because the solar project site is flat and slopes very gently to the south, silt fencing would probably not be necessary at the southern perimeters.</p> <p>Operation: Planned BMPs include those from stormwater management guidelines applicable to eastern Washington.</p> <p>Topography, Unique Physical Features, and Seismic Activities Construction and Operation: No mitigation measures are proposed for these technical resources because there would be no significant impacts from the proposed solar project related to these resources.</p>
Air	<p>Construction: Dust from access roads would be controlled by applying gravel or watering, as necessary.</p> <p>Operation: There would be no long-term operational mitigation measures for air.</p>
Water	<p>Water Resources Construction: TE – Columbia Solar utilized avoidance measures during the solar project design to avoid, reduce, or eliminate impacts to water resources. At unavoidable crossings of water resources, TE – Columbia Solar would utilize the existing bridge infrastructure to the extent possible and, where bridge improvements are needed, techniques would be utilized that would not require impacting water resources below their ordinary high water marks (OHWMs), such as spanning existing bridges. Proper BMPs to reduce or eliminate runoff of contaminants would be utilized, including the proper use of silt fencing, to protect water resources from contamination and sedimentation.</p> <p>Operation: Once construction is completed, seeding would be conducted in accordance with the Restoration and Vegetation Management Plan to reduce erosion of bare ground. Once the solar project site has been adequately re-vegetated, the operational use of the solar project site would be limited to the installed infrastructure and would not involve any activities that could affect water resources.</p> <p>Surface Water Construction and Operation: The mitigation measures for Soils (above) and Runoff/Absorption (below) would also reduce the potential for significant surface water impacts.</p> <p>Runoff/Absorption Construction: Off-site flows have been calculated for the solar project site, and would bypass the site via the existing flow paths, which run throughout the site in poorly defined flow paths. The solar project site has been laid out to minimize the area that would encroach into the flow paths. Where limited grading would occur, the solar project site would be graded such that surface water is directed away from structures and slopes. Surface water would not be allowed to pond near the tops or toes of slopes. Stormwater discharge BMPs would be implemented to control runoff from the solar project site. Sediment-laden surface water would be treated such that water discharged from the solar project site meets all water quality standards. Stormwater would not be discharged over the project site slopes to the north of the site.</p> <p>Operation: The measures implemented during the operation phase would be the same as those discussed above for the construction phase of the project.</p>

Technical Resource	Mitigation Measures
	<p>Floodplains</p> <p>Construction:</p> <p>TE – Columbia Solar utilized avoidance measures during the solar project design to avoid, reduce, or eliminate impacts to the FEMA-mapped 100-year floodplain within the Urtica Solar Project site.</p> <p>In areas of the FEMA-mapped 100-year floodplain that would be unavoidable, TE – Columbia Solar would limit site grading, except in areas where roads and transformers would be located, so as not to substantially alter the floodplain storage area. All transformers would be located outside of the FEMA-mapped 100-year floodplain.</p> <p>Footings for the solar panel modules would be installed using pile-driven H-piles, which would not result in any soil spoil piles and would minimize the overall footprint of the solar panel modules.</p> <p>Operation:</p> <p>Once construction is completed, no additional measures would need to be taken to mitigate for the operational use of the solar project site, which would be limited to the installed infrastructure and would have minimal changes in elevation or grade in FEMA-mapped 100-year floodplain areas.</p> <p>Groundwater</p> <p>Construction:</p> <p>Groundwater control measures would be on-site or readily available, including trash pumps, sumps, and discharge ditches.</p> <p>Operation:</p> <p>Groundwater control measures would be on-site or readily available, including trash pumps, sumps, and discharge ditches.</p>
Habitat, Vegetation, Fish, and Wildlife	<p>Construction:</p> <p>Buffers and Seasonal Timing:</p> <p>To ensure compliance with MBTA, vegetation clearing would ideally be undertaken from August 1 through the end of February.</p> <p>If construction or vegetation clearing is required between March 1 and August 1, nest surveys would be required in the proposed area of disturbance. If active migratory bird nests (including raptor nests) are encountered during the surveys, land-disturbing construction activities should be avoided while the birds are allowed to fledge. An appropriate species avoidance buffer, as determined in conjunction with WDFW and local agencies, would apply to all active nests for migratory bird species.</p> <p>Riparian Corridors:</p> <p>Avoidance buffers have been incorporated into the solar project design for streams in the vicinity of the proposed solar project.</p> <p>To additionally protect riparian corridors and habitats, peak construction activities would be conducted during the dry season as much as possible, to minimize erosion, sedimentation, and soil compaction.</p> <p>Noise:</p> <p>All noise-generating construction activities would be conducted between the hours of 7 a.m. and 10 p.m., in accordance with WAC 173-60-050 and local bylaws and noise ordinances, including but not limited to KCC 9.45.010, Public Disturbance Noises. These practices would avoid night-time noise disturbances to wildlife species.</p> <p>Design and Construction Techniques:</p> <p>Avoid, when possible, construction in sensitive areas such as riparian zones and wetlands.</p> <p>Flag sensitive habitat areas (e.g., raptor nests, wetlands, etc.) near proposed areas of construction activity, and designate such areas as off limits to all construction personnel.</p> <p>During the nesting season, monitor raptor nests within 0.25 mile of the site for nesting activity; coordinate construction timing and activities with WDFW to avoid impacts to nesting raptors.</p> <p>Minimize new road construction by improving and using existing roads and trails, instead of constructing new roads.</p>

Technical Resource	Mitigation Measures
	<p>Develop and implement a Fire Control Plan, in coordination with local fire districts, to minimize the risk of accidental fires during construction, and respond effectively to any fire that does occur.</p> <p>Designate an environmental monitor during construction to monitor construction activities and ensure compliance with mitigation measures.</p> <p>Implement a trenching protocol during the installation of underground electrical facilities, to allow for conservation of surface soils.</p> <p>Require construction personnel to avoid driving over or otherwise disturbing areas outside of the designated construction areas.</p> <p>Properly store and manage all wastes generated during construction.</p> <p>Use certified weed-free straw bales during construction to avoid introduction of noxious or invasive weeds.</p> <p>There would be one straight row of barbed wire, not circular barbed wire, at the top of the perimeter fences. This would avoid birds becoming trapped in circular barbed wire.</p> <p>For poles installed by TE – Columbia Solar, when feasible:</p> <p>equip overhead power lines with raptor perch guards to minimize risks to raptors and</p> <p>space overhead power line conductors to minimize potential for raptor electrocution.</p> <p>Erosion and Sediment Control:</p> <p>Use BMPs to minimize construction-related surface water runoff and soil erosion.</p> <p>Implement temporary erosion and sediment control measures, as appropriate, both during and after construction.</p> <p>Flag sensitive habitat areas (e.g., riparian zones, wetlands, etc.) near proposed areas of construction activity, and designate such areas as off limits to all construction personnel.</p> <p>Limit disturbances to the minimum necessary when working in or near waterbodies, and install stakes or flagging to restrict vehicles and equipment to designated routes and areas.</p> <p>Delineate construction limits within 200 feet of waterbodies, as specified in the stormwater pollution prevention plan (SWPPP), with a sediment fence, straw wattles, or similarly approved methods to eliminate sediment discharge into waterways and wetlands, minimize the size of construction disturbance areas, and minimize removal of vegetation, to the greatest extent possible.</p> <p>Restoration and Noxious Weed Control:</p> <p>Quickly revegetate habitats temporarily disturbed during construction with native species.</p> <p>Reseed all temporarily disturbed areas with an appropriate mix of native plant species as soon as possible after construction is completed, to accelerate the revegetation of these areas and to prevent the spread of noxious weeds.</p> <p>Consult with WDFW regarding the appropriate native seed mixes to include in the Vegetation Management Plan for revegetation of the solar project site.</p> <p>As further detailed in the Vegetation Management Plan, implement noxious weed control measures.</p> <p>Develop a Noxious Weed Control Plan prior to construction, and implement the plan over the life of the solar project as mitigation. Herbicide application could be a noxious weed control method used.</p> <p>Operation:</p> <p>Fire Control Plan:</p> <p>Implement the Fire Control Plan in coordination with local fire districts, to minimize the risk of accidental fires during operation, and respond effectively to any fire that does occur.</p> <p>Erosion and Sediment Control:</p> <p>Use BMPs to minimize operation-related surface water runoff and soil erosion.</p> <p>Noxious Weed Control:</p> <p>Implement the Noxious Weed Control Plan (as further detailed in the Vegetation Management Plan) over the life of the solar project as mitigation.</p>
Wetlands	<p>Construction:</p> <p>TE – Columbia Solar utilized avoidance measures during the solar project design to avoid, reduce, or eliminate impacts to wetlands.</p>

Technical Resource	Mitigation Measures
	<p>All wetlands would be avoided through the solar project design.</p> <p>Proper BMPs to reduce or eliminate runoff of contaminants would be utilized, including the proper use of silt fencing, to protect wetlands from contamination and sedimentation.</p> <p>Operation:</p> <p>Once construction is completed, seeding would be conducted in accordance with the Restoration and Vegetation Management Plan to reduce erosion of bare ground. Once the site has been adequately re-vegetated, the operational use of the solar project site would be limited to the installed infrastructure and would not involve any activities that could affect wetlands.</p> <p>In accordance with the Restoration and Vegetation Management Plan, some seeding and planting within wetlands would occur within the first two years of operations at the Urtica Solar Project site. These actions would have a net benefit to the quality of wetlands at the project site.</p> <p>Additional operational vegetation management actions would involve some minor herbicide treatments to control noxious weeds, potentially near wetland areas.</p>
Energy and Natural Resources	<p>Construction and Operation:</p> <p>Because there would be minimal or no construction or operational impacts to Energy and Natural Resources, no mitigation measures are proposed.</p>
Environmental Health	<p>Noise</p> <p>Construction:</p> <p>All noise-generating construction activities would take place within the hours of 7:00 a.m. to 10:00 p.m. so that it is exempt from local noise standards.</p> <p>Construction equipment would use noise reduction devices that are no less effective than those originally installed by the manufacturer.</p> <p>Stationary equipment used during construction would be located as far as practical from sensitive noise receptors.</p> <p>"Quiet" equipment (i.e., equipment that incorporates noise control elements into the design - compressors have "quiet" models) would be used during construction when reasonably available.</p> <p>Operation:</p> <p>Operation of the project would not exceed the Washington State Noise Maximum and no mitigation is required.</p> <p>Risk of Fire or Explosion</p> <p>Construction and Operation:</p> <p>Because there would be minimal risks and potential impacts of fire during construction or operation of the solar project site, and no risks of explosion, no mitigation measures are proposed.</p> <p>Spill Prevention and Control</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Spill Prevention and Control from the solar project site, no mitigation measures are proposed.</p> <p>Solid Wastes</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Solid Wastes from the solar project site, no mitigation measures are proposed.</p>
Land and Shoreline Use	<p>Land Use and Zoning</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Land Use and Zoning from the solar project site, no mitigation measures are proposed.</p> <p>Light and Glare</p> <p>Construction and Operation:</p>



Technical Resource	Mitigation Measures
	<p>Because there would be no construction or operational impacts to light and glare from the solar project site, no mitigation measures are proposed.</p> <p>Aesthetics</p> <p>General:</p> <p>Vegetation or fencing would be used to interrupt the line of sight from nearby key observation points (KOPs) at or near the same elevation of the project.</p> <p>Urtica Solar Project site – along the northwestern and southeastern borders of the site (see Figure 2.3-5)Vegetation and ground disturbance would be minimized near roads, and the use of existing clearings would be maximized.</p> <p>The use of non-necessary and/or non-safety-related signs and project construction signs should be minimized; necessary signs would be made of non-glare materials and use unobtrusive colors; reverse sides of signs and mounts would be painted or coated using the most suitable color to reduce color contrasts with the existing landscape; however, placement and design of any signs required by safety regulations must conform to regulatory requirements.</p> <p>“Good housekeeping” procedures would be developed to ensure that the site is kept clean of debris, garbage, fugitive trash or waste, and graffiti; to prohibit scrap heaps and dumps; and to minimize storage yards. Design features regarding waste management would be applied.</p> <p>A lighting plan would be prepared that documents how lighting would be designed and installed to minimize night-sky impacts during facility construction and operations phases. Lighting for facilities would not exceed the minimum number of lights and brightness required for safety and security, and would not cause excessive reflected glare. Full cut-off luminaires would be used to minimize upward shining lighting. Lights would be directed downward or toward the area to be illuminated. Light fixtures would not spill light beyond the project boundary. Lights in high illumination areas not occupied on a continuous basis would have switches, timer switches, or motion detectors so that the lights operate only when the area is occupied. Where feasible, vehicle-mounted lights would be used for night maintenance activities. Wherever feasible, consistent with safety and security, lighting would be kept off when not in use. The lighting plan would include a process for promptly addressing and mitigating complaints about potential lighting impacts.</p> <p>The solar site would be adequately screened by either existing or new vegetation or through the application of perimeter fencing to reduce contrast from glint and glare for KOPs with level views.</p> <p>Construction:</p> <p>Project developers would integrate visual and aesthetics mitigation elements early in the construction, which may include treatments such as thinning and feathering vegetation along project edges, salvaging landscape materials from within construction areas, etc.</p> <p>Visual impacts would be reduced during construction by clearly delineating construction boundaries. Within areas not intended for long-term use, impacts would be reduced by minimizing areas of surface disturbance within those boundaries; preserving vegetation to the greatest extent possible; using undulating surface disturbance edges; controlling erosion; using fugitive dust suppression techniques; and restoring exposed soils to their original contour and vegetation.</p> <p>An interim reclamation plan would be in place prior to construction. Interim reclamation of the construction site would begin immediately after construction to reduce the likelihood of visual contrasts associated with erosion and invasive weed infestation and to reduce the visibility of impacted areas as quickly as possible. Existing rocks, vegetation, and drainage patterns would be preserved to the maximum extent practicable, particularly within temporary use areas.</p> <p>Brush-beating or mowing, or using protective surface matting rather than vegetation removal would be done where feasible.</p> <p>For interim reclamation areas, slash from vegetation removal would be mulched and spread to cover fresh soil disturbances as part of the revegetation plan. Slash piles would not be left in sensitive viewing areas.</p> <p>No paint or permanent discoloring agents would be applied to rocks or vegetation to indicate surveyor construction activity limits, except in areas defined and designated for disturbance.</p> <p>All stakes and flagging would be removed from the construction area and disposed of in an approved facility.</p> <p>Operation:</p> <p>The project developer would maintain revegetated surfaces until a self-sustaining stand of vegetation is re-established and visually adapted to the undisturbed surrounding vegetation. For new areas of disturbance (beyond the scope of this project), no new disturbance would be created during operation.</p>

Technical Resource	Mitigation Measures
	<p>Interim restoration would be undertaken during the operating life of the project as soon as possible after disturbances.</p> <p>Maintenance activities would include noxious weed control.</p> <p>Road maintenance activities would avoid blading existing vegetation in ditches and adjacent to roads.</p> <p>Painted facilities would be kept in good repair and repainted when color fades or flakes increase visual contrast.</p> <p>Recreation</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Recreation from the solar project site, no mitigation measures are proposed.</p> <p>Cultural and Historical Preservation</p> <p>Construction:</p> <p>SWCA recommends that an Inadvertent Discovery Plan be prepared for the solar project site prior to project construction, to inform construction personnel what to do in the event that previously unidentified cultural resources are discovered during excavation. In addition, it is understood that DAHP may recommend additional mitigation measures after reviewing the reports on the cultural resource surveys conducted for the proposed solar project.</p> <p>Operation:</p> <p>Because there would be no operational impacts to Cultural and Historic Preservation, no mitigation measures are proposed.</p> <p>Agriculture</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Agriculture from the solar project site, no mitigation measures are proposed.</p>
Transportation	<p>Vehicles</p> <p>Construction:</p> <p>Because there would be less than a 5% increase in average daily traffic volumes and, thus, no impacts to vehicle traffic for the project site, no mitigation measures are proposed.</p> <p>Operation:</p> <p>Because there would be minimal operational staff levels and vehicle trips, and no negative impacts from the solar project site, no mitigation measures are proposed.</p> <p>Waterborne, Rail, and Air Traffic</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Waterborne, Rail, or Air Traffic from the solar project site, no mitigation measures are proposed.</p> <p>Parking</p> <p>Construction and Operation:</p> <p>Because there would be no construction or operational impacts to Parking from the solar project site, no mitigation measures are proposed.</p>
Socioeconomics	<p>Employment, Housing: Tax Revenues, Fire Protection, Police, Schools, Parks and Recreation, Utilities, Maintenance, Communications, Water and Stormwater, Sewer and Solid Waste, Other Governmental Services, and Local Government Revenues</p> <p>Construction and Operation:</p>

Technical Resource	Mitigation Measures
	Because there would be minimal or no construction or operational impacts to these socioeconomic characteristics, public services, or public infrastructure from the solar project site, no mitigation measures are proposed.

## **APPENDIX A**

### **Applicable Requirements from the Columbia Solar Project Site Certification Agreement**

# **APPLICABLE REQUIREMENTS FROM THE COLUMBIA SOLAR PROJECT SITE CERTIFICATION AGREEMENT**

## ***Article III.H – Site Restoration***

The Certificate Holder is responsible for site restoration pursuant to the Council's rules, WAC 463-72, in effect at the time of submittal of the Application. The Certificate Holder shall develop an Initial Site Restoration Plan in accordance with the requirements set out in Article JY.D of this Agreement and in consultation with WDFW, and submit it to EFSEC for approval. The Certificate Holder may not begin Site Preparation or Construction until the Council has approved the Initial Site Restoration Plan, including the posting of all necessary guarantees, securities, or funds associated therewith. The Certificate Holder shall submit a detailed Site Restoration Plan to EFSEC for approval prior to decommissioning in accordance with the requirements of Article VUI.A of this Agreement.

## ***Article IV.D – Initial Site Restoration Plan***

The Certificate Holder is responsible for Site decommissioning and restoration pursuant to Council rules. The Certificate Holder shall develop an Initial Site Restoration Plan, pursuant to the requirements of WAC 463-72-040 in effect on the date of Application, in consultation with EFSEC staff and WDFW. The Certificate Holder shall submit the Initial Site Restoration Plan to the Council for review at least ninety (90) days prior to the beginning of Site Preparation. The Certificate Holder shall not begin Site Preparation prior to obtaining approval of the Initial Site Restoration Plan from the Council. The Initial Site Restoration Plan shall be prepared in sufficient detail to identify, evaluate, and resolve all major environmental and public health and safety issues reasonably anticipated by the Certificate Holder on the date the Plan is submitted to EFSEC. The initial Site Restoration Plan shall describe the process used to evaluate the options and select the measures that will be taken to restore or preserve the Site Location or otherwise protect the public against risks or danger resulting from the Site. The Initial Site Restoration Plan shall include a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk, and shall address provisions for funding or bonding arrangements to meet the Site Location restoration or management costs. The Initial Site Restoration Plan shall be prepared in detail commensurate with the time until restoration is to begin. The scope of proposed monitoring shall be addressed in the Initial Site Restoration Plan.

The objective of the Plan shall be to restore each Site Location to approximate pre-Project condition or better. The Plan shall require removal of the solar panels and rack mounting system, foundations, cables, and other facilities to a depth of four feet below grade, and restoration of any disturbed soil to the pre-construction condition.

The Plan shall include the following elements:

1. Decommissioning Timing and Scope, as required by Article V11I.C of this Agreement.
2. Decommissioning Funding and Surety, as required by Article VIIJ.D of this Agreement.
3. Mitigation measures described in the Revised Application and this Agreement.
4. A plan that addresses both the possibility that restoration will occur prior to, or at the end of, the useful life of the Site and also the possibility of the Site being suspended or terminated during construction.

5. A description of the assumptions underlying the plan. For example, the plan should explain the anticipated useful life of the Site, the anticipated time frame of restoration, and the anticipated future use of the Site Location.
6. An initial plan for demolishing facilities, salvaging equipment, and disposing of waste materials.
7. Performing an on-site audit, and preparing an initial plan for disposing of hazardous materials (if any) present on the Site Location and remediation of hazardous contamination (if any) at the Site Location. In particular, if the Certificate Holder constructs the Site with solar panels incorporating hazardous materials, such as Cadmium Telluride, then the Certificate Holder shall use appropriate precautions during decommissioning and removal of the solar panels to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the panels' hazardous materials.
8. An initial plan for restoring the Site Location, including the removal of structures and foundations to four feet below grade and the restoration of disturbed soils.
9. Provisions for preservation or removal of Site facilities if the Site is suspended or terminated during construction.

## **Article VIII – PROJECT TERMINATION, DECOMMISSIONING AND SITE RESTORATION**

### ***Article VIII.A – Detailed Site Restoration Plan***

The Certificate Holder shall submit a Detailed Site Restoration Plan to EFSEC for approval within ninety (90) days from the time the Council is notified of the termination of the Site. The Detailed Site Restoration Plan shall provide for restoration of the Site Location within the timeframe specified in Article VIII.C, taking into account the Initial Site Restoration Plan and the anticipated future use of the Site Location. The Detailed Site Restoration Plan shall address the elements required to be addressed by WAC 463-72-020, and the requirements of the Council approved Initial Site Restoration Plan pursuant to Article IV.D of this Agreement. The Certificate Holder shall not begin Site Restoration activities without prior approval from the Council. The Certificate Holder shall consult with WDFW, and Ecology in preparation of the Detailed Site Restoration Plan.

### ***Article VIII.B – Site Termination***

1. Termination of this Site Certification Agreement, except pursuant to its own terms, is an amendment of this Agreement.
2. The Certificate Holder shall notify EFSEC of its intent to terminate the Site, including by concluding the plant's operations, or by suspending construction and abandoning the Site.
3. The Council may terminate the SCA through the process described in WAC 463-66-090, and the Council may initiate that process where it has objective evidence that a certificate may be abandoned or when it deems such action to be necessary, including at the conclusion of the plant's operating life, or in the event the Site is suspended or abandoned during construction or before it has completed its useful operating life.

## **Article VIII.C – Site Restoration Timing and Scope**

Site Restoration shall be conducted in accordance with the commitments made in the draft Site Restoration Plan attached as Appendix F to the Application, and the Detailed Site Restoration Plan required by Article VIII.A (unless the Certificate Holder fails to submit such a plan), and in accordance with the following measures:

1. Timing. The Certificate Holder shall commence Site Restoration of the Site within twelve ( 12) months following the termination described in Article VIII.B above.

The period to perform the Site Restoration may be extended if there is a delay caused by conditions beyond the control of the Certificate Holder including, but not limited to, inclement weather conditions, equipment failure, wildlife considerations, or the availability of cranes or equipment to support decommissioning.

2. Scope. Site Restoration shall involve removal of the solar panels and mounting structures; removal of foundations or other Site facilities to a depth of four (4) feet below grade; restoration of any disturbed soil to pre-construction condition; and removal of Project access roads and overhead poles and transmission lines (except for any roads and/or overhead infrastructure that Site Location landowner wishes to retain) (all of which shall comprise "Site Restoration"). Site Restoration shall occur in the order of removing the solar panels as the first priority and performing the remaining elements immediately thereafter. If the Certificate Holder constructs the Site with solar panels incorporating hazardous materials, such as Cadmium Telluride, Site Restoration shall also include the use of appropriate precautions during decommissioning and removal of the solar panels to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the panels' hazardous materials.
3. Monthly Reports. If requested by EFSEC, the Certificate Holder shall provide monthly status reports until this Site Restoration work is completed.
4. Restoration Oversight. At the time of Site Restoration, the Site Location will be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site location. Success criteria for Site Restoration will be established prior to commencement of decommissioning activities, based on the documented preconstruction conditions, experience gained with re-vegetation during operation and the condition of the Site Location at the time of Site Restoration. The restoration success criteria will be established in the Detailed Site Restoration Plan approved by EFSEC in consultation with the designated biologist. Once restoration of the Site Location is determined to be complete, a final report of restoration activities and results will be submitted.

## **Article VIII.D – Site Restoration Financial Assurance**

1. Except as provided in Article VII.D.3 below, the Certificate Holder or any Transferee, as the case may be, shall provide financial assurance sufficient, based on detailed engineering estimates, for required Site Restoration costs in the form of a surety bond, irrevocable letter of credit, or guaranty. The Certificate Holder shall include a detailed engineering estimate of the cost of Site Restoration in its Initial Site Restoration Plan submitted to EFSEC. The estimate must be based on the costs of the Certificate Holder or Transferee hiring a third party to carry out Site Restoration. The estimate may not be reduced for " net present value" or other adjustments. During the active life of the facility, the Certificate Holder or Transferee must adjust the Site Restoration cost estimate for inflation within sixty days prior to the anniversary date of the

establishment of the financial instrument used to provide financial assurance and must increase the financial assurance amount accordingly to ensure sufficient funds for Site Restoration.

2. The duty to provide such financial assurance shall commence thirty (30) days prior to the beginning of Construction of the Site, and shall be continuously maintained through to the completion of Site Restoration. Construction of the Site shall not commence until adequate financial assurance is provided. On or before the date on which financial assurance must be established, the Certificate Holder shall provide EFSEC with one of the following financial assurance mechanisms that is reasonably acceptable to EFSEC:
  - a. *Surety Bond.* The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through a Surety Bond issued by a surety listed as acceptable in Circular 570 of the U.S. Department of the Treasury. The Performance Bond shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be established by the Certificate Holder or Transferee to receive any funds that may be paid by the surety to be used to complete Site Restoration. The surety shall become liable for the bond obligation if the Certificate Holder or Transferee fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least one hundred twenty days after the Certificate Holder or Transferee and EFSEC have received notice of cancellation. If the Certificate Holder or Transferee has not provided alternate financial assurance acceptable under this SCA within ninety days of the cancellation notice, the surety shall pay the amount of the bond into the standby Site Restoration trust; or
  - b. *Irrevocable Letter of Credit.* The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through an irrevocable letter of credit payable to or at the direction of EFSEC, that is issued by an institution that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency. The letter of credit shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be established by Certificate Holder or Transferee to receive any funds deposited by the issuing institution resulting from a draw on the letter of credit. The letter of credit shall be irrevocable and issued for a period of at least one year, and renewed annually, unless the issuing institution notifies the Certificate Holder or Transferee and EFSEC at least one hundred twenty days before the current expiration date. If the Certificate Holder or Transferee fails to perform Site Restoration, or if the Certificate Holder or Transferee fails to provide alternate financial assurance acceptable to EFSEC within ninety days after notification that the letter of credit will not be extended, EFSEC may require that the financial institution provide the funds from the letter of credit to be used to complete Site Restoration; or
  - c. *Guaranty.* Certificate Holder or any Transferee, as the case may be, shall provide financial assurance for the performance of its Site Restoration obligations by delivering a guaranty to fund the Certificate Holder or Transferee's Site Restoration obligations hereunder from an entity that meets the following financial criteria:
    - i. A current rating of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;
    - ii. Tangible net worth at least six times the sum of the current Site Restoration cost estimates;



- iii. Tangible net worth of at least ten million dollars; and
- iv. Assets in the United States amounting to at least ninety percent of its total assets or at least six times the sum of the current Site Restoration cost estimates.

The guarantor entity's chief financial officer shall provide a corporate guaranty that the corporation passes the financial test at the time the Initial Site Restoration Plan is filed. This corporate guaranty shall be reconfirmed annually ninety days after the end of the corporation's fiscal year by submitting to EFSEC a letter signed by the guaranteeing entity's chief financial officer that:

- i. Provides the information necessary to document that the entity passes the financial test;
- ii. Guarantees that the funds to finance required Site Restoration activities are available;
- iii. Guarantees that required Site Restoration activities will be completed;
- iv. Guarantees that within thirty days if written notification is received from EFSEC that the entity no longer meets the above financial criteria, the entity shall provide an alternative form of financial assurance consistent with the requirements of this section;
- v. Guarantees that the entity's chief financial officer will notify in writing the Certificate Holder or Transferee and EFSEC within fifteen days any time that the entity no longer meets the above financial criteria or is named as debtor in a voluntary or in voluntary proceeding under Title 11 U.S.C. Bankruptcy;
- vi. Acknowledges that the corporate guaranty is a binding obligation on the corporation and that the chief financial officer has the authority to bind the corporation to the guaranty;
- vii. Attaches a copy of the independent certified public accountant's report on examination of the entity's financial statements for the latest completed fiscal year; and
- viii. Attaches a special report from the entity's independent certified public accountant (CPA) stating that the CPA has reviewed the information in the letter from the entity's chief financial officer and has determined that the information is true and accurate.

If the Certificate Holder or any Transferee fails to perform Site Restoration covered by the guaranty in accordance with the approved Initial or Final Site Restoration plan, the guarantor will be required to complete the appropriate activities. The guaranty will remain in force unless the guarantor sends notice of cancellation by certified mail to the Certificate Holder or Transferee and EFSEC. Cancellation may not occur, however, during the one hundred twenty days beginning on the date of receipt of the notice of cancellation by the Certificate Holder or Transferee and EFSEC. If the Certificate Holder or Transferee fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from EFSEC within ninety days after receipt of a notice of cancellation of the guaranty from the guarantor, the guarantor

will provide such alternative financial assurance in the name of the Certificate Holder or Transferee.

3. If the SCA is transferred after its effective date pursuant to applicable EFSEC laws and regulations, EFSEC has the right to require, consider, and approve other financial security that would provide for the Certificate Holder's performance of its Site Restoration obligations pursuant to Articles VIII.C and VIII.D of this Site Certification Agreement.

## **APPENDIX B**

### **Cost Estimate of Decommissioning and Site Restoration**

# **COST ESTIMATE OF DECOMMISSIONING AND SITE RESTORATION**

Cost estimates for decommissioning and site restoration for the Urtica Solar site is included in Table B-1. These costs include the removal, recycling, and disposal of the system components as well as any grading and reseeded that would be required to return the site to pre-project conditions following equipment removal. Cost estimates were developed based on current prices for similar sized utility scale solar projects, the assumptions outlined below, and those listed in Tables 1-3 for each task.

Most materials from solar installations may be recycled, reused, or even sold resulting in no costs or compensation. A periodic reevaluation of decommissioning costs during the project's lifetime is recommended as costs could decrease and revenue from recyclable materials could fluctuate. The cost estimates included in Table B-1 do not account for the offsets to costs from recycling or reselling project components.

## **Assumptions**

- Labor costs are estimated at \$30 per hour and equipment costs are estimated at \$150 per hour.
- System electrical equipment including inverters, transformers and switchgear to be removed from their respective concrete pads and recycled or returned to their manufacturer for processing. The project contains large amounts of copper, aluminum, and other conductive metals, which are easily recyclable.
- Chain link fencing to be removed and sold or recycled.
- Solar photovoltaic modules will be detached from the racking system, stacked for removal, and recycled or reused.
- Sections of the racking system will be cut, stacked, and recycled. Racking posts will be removed, stacked and recycled.
- The concrete pads will be lifted, secured onto flat beds, and transported off-site for processing.
- AC and DC wiring that can be disconnected and removed from equipment and earth will be consolidated for recycling. Direct buried conductors and PVC conduit that would require substantial soil disturbance for removal is excluded.
- All non-recyclable materials will be taken to the nearest approved landfill for disposal.
- On site power poles and medium voltage wiring shall be dug out and removed.
- All resulting depressions, voids, and excavation areas will be backfilled, and graded to the proper elevation. Backfilling and compaction of disturbed areas are included.
- All disturbed areas associated with the array will be re-vegetated in effort to return the landscape of the earth as close to its previous state as possible. This includes the gravel access drives within the fenced area, unless otherwise requested by the landowner. This estimate does not include any tree planting.
- The electric lines are property of the local utility and are not subject to this study.

**Table B-2. Estimated Decommissioning Cost for the Urtica Solar Project**

Task	Unit	Quantity	Labor Cost	Equipment Cost	2021 Cost± for 5 MW project	Assumption
Remove Rack Wiring	Linear foot (l.f.)	3860	\$2,252	\$11,258	\$13,510	10 minutes per 10 l.f.
Remove Panels	module	12,246	\$1,021	\$5,102	\$6,123	5 minutes per module
Dismantle Racks and posts to 4 feet below grade	posts	4535	\$11,340	\$56,685	\$68,025	5 minutes per post
Remove electrical equipment	MW	5	\$750	\$3,750	\$4,500	1 hour per MW
Breakup/Remove Conc. Pads/ballast	pads	3	\$375	\$1,875	\$2,250	1.5 hour per pad
Remove Cable and Underground Conduit	l.f.	3360	\$2,801	\$13,999	\$16,800	15 minutes per 10 l.f.
Remove Fence	l.f.	7800	\$1,950	\$9,750	\$11,700	5 minutes per 10 l.f.
Remove Access Roads	acre	0.29	\$1,934	\$9,666	\$11,600	72 hours for 0.5 acre
Re-grading and seeding	acre	42	\$630	\$3,150	\$3,780	30 minutes per acre
Truck to Recycling Center (offsite disposal)	Loads (lump sum)	3	-	-	\$9,000	Lump sum of \$3,000 per trip.
Erosion Control install and disposal	l.f.	500	-	-	\$750	Lump sum \$1.50 per foot.
<b>Current Total</b>					<b>\$148,038</b>	
<b>Total After 40 Years (2.5% infl.)</b>					<b>\$249,459</b>	

## **APPENDIX C**

### **Pre-construction Vegetation Photographs**



**Photo 1. Urtica Solar Project site.**



**Photo 2. Urtica Solar Project site.**





**Photo 3. Urtica Solar Project site.**



Issuance Date: November 18, 2020  
Effective Date: January 1, 2021  
Expiration Date: December 31, 2025

# CONSTRUCTION STORMWATER GENERAL PERMIT

National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge  
General Permit for Stormwater Discharges Associated with Construction Activity

**State of Washington**  
**Department of Ecology**  
Olympia, Washington 98504

In compliance with the provisions of  
Chapter 90.48 Revised Code of Washington  
(State of Washington Water Pollution Control Act)  
and  
Title 33 United States Code, Section 1251 et seq.  
The Federal Water Pollution Control Act (The Clean Water Act)

Until this permit expires, is modified, or revoked, Permittees that have properly  
obtained coverage under this general permit are authorized to discharge in accordance  
with the special and general conditions that follow.



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Vincent McGowan, P.E.  
Water Quality Program Manager  
Washington State Department of Ecology

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## SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions within this permit for additional submittal requirements. Appendix A provides a list of definitions. Appendix B provides a list of acronyms.

**Table 1 Summary of Required Submittals**

Permit Section	Submittal	Frequency	First Submittal Date
<a href="#">S5.A</a> and <a href="#">S8</a>	High Turbidity/Transparency Phone Reporting	As Necessary	Within 24 hours
<a href="#">S5.B</a>	Discharge Monitoring Report	Monthly*	Within 15 days following the end of each month
<a href="#">S5.F</a> and <a href="#">S8</a>	Noncompliance Notification – Telephone Notification	As necessary	Within 24 hours
<a href="#">S5.F</a>	Noncompliance Notification – Written Report	As necessary	Within 5 Days of non-compliance
<a href="#">S9.D</a>	Request for Chemical Treatment Form	As necessary	Written approval from Ecology is required prior to using chemical treatment (with the exception of dry ice, CO <sub>2</sub> or food grade vinegar to adjust pH)
<a href="#">G2</a>	Notice of Change in Authorization	As necessary	
<a href="#">G6</a>	Permit Application for Substantive Changes to the Discharge	As necessary	
<a href="#">G8</a>	Application for Permit Renewal	1/permit cycle	No later than 180 days before expiration
<a href="#">S2.A</a>	Notice of Permit Transfer	As necessary	
<a href="#">G19</a>	Notice of Planned Changes	As necessary	
<a href="#">G21</a>	Reporting Anticipated Non-compliance	As necessary	

**NOTE:** \*Permittees must submit electronic Discharge Monitoring Reports (DMRs) to the Washington State Department of Ecology monthly, regardless of site discharge, for the full duration of permit coverage. Refer to Section S5.B of this General Permit for more specific information regarding DMRs.

**Table 2 Summary of Required On-site Documentation**

<b>Document Title</b>	<b>Permit Conditions</b>
Permit Coverage Letter	See Conditions S2, S5
Construction Stormwater General Permit (CSWGP)	See Conditions S2, S5
Site Log Book	See Conditions S4, S5
Stormwater Pollution Prevention Plan (SWPPP)	See Conditions S5, S9
Site Map	See Conditions S5, S9

# SPECIAL CONDITIONS

## S1. PERMIT COVERAGE

### A. Permit Area

This Construction Stormwater General Permit (CSWGP) covers all areas of Washington State, except for federal operators and Indian Country as specified in Special Condition S1.E.3 and 4.

### B. Operators Required to Seek Coverage Under this General Permit

1. Operators of the following construction activities are required to seek coverage under this CSWGP:
  - a. Clearing, grading and/or excavation that results in the disturbance of one or more acres (including off-site disturbance acreage related to construction-support activity as authorized in S1.C.2) and discharges stormwater to surface waters of the State; and clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more and discharge stormwater to surface waters of the State.
    - i. This category includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, and discharge to surface waters of the State (that is, forest practices that prepare a site for construction activities); and
  - b. Any size construction activity discharging stormwater to waters of the State that the Washington State Department of Ecology (Ecology):
    - i. Determines to be a significant contributor of pollutants to waters of the State of Washington.
    - ii. Reasonably expects to cause a violation of any water quality standard.
2. Operators of the following activities are not required to seek coverage under this CSWGP (unless specifically required under Special Condition S1.B.1.b, above):
  - a. Construction activities that discharge all stormwater and non-stormwater to groundwater, sanitary sewer, or combined sewer, and have no point source discharge to either surface water or a storm sewer system that drains to surface waters of the State.
  - b. Construction activities covered under an Erosivity Waiver (Special Condition S1.F).
  - c. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

### C. Authorized Discharges

1. ***Stormwater Associated with Construction Activity.*** Subject to compliance with the terms and conditions of this permit, Permittees are authorized to discharge stormwater associated with construction activity to surface waters of the State or to a storm sewer system that drains to surface waters of the State. (Note that “surface waters of the

State” may exist on a construction site as well as off site; for example, a creek running through a site.)

2. ***Stormwater Associated with Construction Support Activity.*** This permit also authorizes stormwater discharge from support activities related to the permitted construction site (for example, an on-site portable rock crusher, off-site equipment staging yards, material storage areas, borrow areas, etc.) provided:
  - a. The support activity relates directly to the permitted construction site that is required to have an NPDES permit; and
  - b. The support activity is not a commercial operation serving multiple unrelated construction projects, and does not operate beyond the completion of the construction activity; and
  - c. Appropriate controls and measures are identified in the Stormwater Pollution Prevention Plan (SWPPP) for the discharges from the support activity areas.
3. ***Non-Stormwater Discharges.*** The categories and sources of non-stormwater discharges identified below are authorized conditionally, provided the discharge is consistent with the terms and conditions of this permit:
  - a. Discharges from fire-fighting activities.
  - b. Fire hydrant system flushing.
  - c. Potable water, including uncontaminated water line flushing.
  - d. Hydrostatic test water.
  - e. Uncontaminated air conditioning or compressor condensate.
  - f. Uncontaminated groundwater or spring water.
  - g. Uncontaminated excavation dewatering water (in accordance with S9.D.10).
  - h. Uncontaminated discharges from foundation or footing drains.
  - i. Uncontaminated or potable water used to control dust. Permittees must minimize the amount of dust control water used.
  - j. Routine external building wash down that does not use detergents.
  - k. Landscape irrigation water.

The SWPPP must adequately address all authorized non-stormwater discharges, except for discharges from fire-fighting activities, and must comply with Special Condition S3. At a minimum, discharges from potable water (including water line flushing), fire hydrant system flushing, and pipeline hydrostatic test water must undergo the following: dechlorination to a concentration of 0.1 parts per million (ppm) or less, and pH adjustment to within 6.5 – 8.5 standard units (su), if necessary.

#### **D. Prohibited Discharges**

The following discharges to waters of the State, including groundwater, are prohibited:

1. Concrete wastewater
2. Wastewater from washout and clean-up of stucco, paint, form release oils, curing compounds and other construction materials.
3. Process wastewater as defined by 40 Code of Federal Regulations (CFR) 122.2 (See Appendix A of this permit).
4. Slurry materials and waste from shaft drilling, including process wastewater from shaft drilling for construction of building, road, and bridge foundations unless managed according to Special Condition S9.D.9.j.
5. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
6. Soaps or solvents used in vehicle and equipment washing.
7. Wheel wash wastewater, unless managed according to Special Condition S9.D.9.
8. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed according to Special Condition S9.D.10.

#### **E. Limits on Coverage**

Ecology may require any discharger to apply for and obtain coverage under an individual permit or another more specific general permit. Such alternative coverage will be required when Ecology determines that this CSWGP does not provide adequate assurance that water quality will be protected, or there is a reasonable potential for the project to cause or contribute to a violation of water quality standards.

The following stormwater discharges are not covered by this permit:

1. Post-construction stormwater discharges that originate from the site after completion of construction activities and the site has undergone final stabilization.
2. Non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance, from which there is natural runoff as excluded in 40 CFR Subpart 122.
3. Stormwater from any federal operator.
4. Stormwater from facilities located on **Indian Country** as defined in 18 U.S.C. §1151, except portions of the Puyallup Reservation as noted below.

**Indian Country** includes:

- a. All land within any Indian Reservation notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation. This includes all federal, tribal, and Indian and non-Indian privately owned land within the reservation.
- b. All off-reservation Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.
- c. All off-reservation federal trust lands held for Native American Tribes.



Puyallup Exception: Following the *Puyallup Tribes of Indians Land Settlement Act of 1989*, 25 U.S.C. §1773; the permit does apply to land within the Puyallup Reservation except for discharges to surface water on land held in trust by the federal government.

5. Stormwater from any site covered under an existing NPDES individual permit in which stormwater management and/or treatment requirements are included for all stormwater discharges associated with construction activity.
6. Stormwater from a site where an applicable Total Maximum Daily Load (TMDL) requirement specifically precludes or prohibits discharges from construction activity.

#### **F. Erosivity Waiver**

Construction site operators may qualify for an Erosivity Waiver from the CSWGP if the following conditions are met:

1. The site will result in the disturbance of fewer than five (5) acres and the site is not a portion of a common plan of development or sale that will disturb five (5) acres or greater.
2. Calculation of Erosivity “R” Factor and Regional Timeframe:
  - a. The project’s calculated rainfall erosivity factor (“R” Factor) must be less than five (5) during the period of construction activity, (See the CSWGP homepage <http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html> for a link to the EPA’s calculator and step by step instructions on computing the “R” Factor in the *EPA Erosivity Waiver Fact Sheet*). The period of construction activity starts when the land is first disturbed and ends with final stabilization. In addition:
  - b. The entire period of construction activity must fall within the following timeframes:
    - i. For sites west of the Cascades Crest: June 15 – September 15.
    - ii. For sites east of the Cascades Crest, excluding the Central Basin: June 15 – October 15.
    - iii. For sites east of the Cascades Crest, within the Central Basin: no timeframe restrictions apply. The Central Basin is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches. For a map of the Central Basin (Average Annual Precipitation Region 2), refer to: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/resourcesguidance.html>.
3. Construction site operators must submit a complete Erosivity Waiver certification form at least one week before disturbing the land. Certification must include statements that the operator will:
  - a. Comply with applicable local stormwater requirements; and
  - b. Implement appropriate erosion and sediment control BMPs to prevent violations of water quality standards.
4. This waiver is not available for facilities declared significant contributors of pollutants as defined in Special Condition S1.B.1.b or for any size construction activity that could

reasonably expect to cause a violation of any water quality standard as defined in Special Condition S1.B.1.b.ii.

5. This waiver does not apply to construction activities which include non-stormwater discharges listed in Special Condition S1.C.3.
6. If construction activity extends beyond the certified waiver period for any reason, the operator must either:
  - a. Recalculate the rainfall erosivity “R” factor using the original start date and a new projected ending date and, if the “R” factor is still under 5 *and* the entire project falls within the applicable regional timeframe in Special Condition S1.F.2.b, complete and submit an amended waiver certification form before the original waiver expires; *or*
  - b. Submit a complete permit application to Ecology in accordance with Special Condition S2.A and B before the end of the certified waiver period.

## S2. APPLICATION REQUIREMENTS

### A. Permit Application Forms

#### 1. ***Notice of Intent Form***

- a. Operators of new or previously unpermitted construction activities must submit a complete and accurate permit application (Notice of Intent, or NOI) to Ecology.
- b. Operators must apply using the electronic application form (NOI) available on Ecology’s website (<http://ecy.wa.gov/programs/wq/stormwater/construction/index.html>). Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

Department of Ecology  
Water Quality Program - Construction Stormwater  
PO Box 47696  
Olympia, Washington 98504-7696

- c. The operator must submit the NOI at least 60 days before discharging stormwater from construction activities and must submit it prior to the date of the first public notice (See Special Condition S2.B, below, for details). The 30-day public comment period begins on the publication date of the second public notice. Unless Ecology responds to the complete application in writing, coverage under the general permit will automatically commence on the 31<sup>st</sup> day following receipt by Ecology of a *completed* NOI, or the issuance date of this permit, whichever is later; unless Ecology specifies a later date in writing as required by WAC173-226-200(2). See S8.B for Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters.
- d. If an applicant intends to use a Best Management Practice (BMP) selected on the basis of Special Condition S9.C.4 (“demonstrably equivalent” BMPs), the applicant must notify Ecology of its selection as part of the NOI. In the event the applicant selects BMPs after submission of the NOI, the applicant must provide notice of the

selection of an equivalent BMP to Ecology at least 60 days before intended use of the equivalent BMP.

- e. Applicants must notify Ecology if they are aware of contaminated soils and/or groundwater associated with the construction activity. Provide detailed information with the NOI (as known and readily available) on the nature and extent of the contamination (concentrations, locations, and depth), as well as pollution prevention and/or treatment BMPs proposed to control the discharge of soil and/or groundwater contaminants in stormwater. Examples of such detail may include, but are not limited to:
  - i. List or table of all known contaminants with laboratory test results showing concentration and depth,
  - ii. Map with sample locations,
  - iii. Related portions of the Stormwater Pollution Prevention Plan (SWPPP) that address the management of contaminated and potentially contaminated construction stormwater and dewatering water,
  - iv. Dewatering plan and/or dewatering contingency plan.

## **2. *Transfer of Coverage Form***

The Permittee can transfer current coverage under this permit to one or more new operators, including operators of sites within a Common Plan of Development, provided:

- i. The Permittee submits a complete Transfer of Coverage Form to Ecology, signed by the current and new discharger and containing a specific date for transfer of permit responsibility, coverage and liability (including any Administrative Orders associated with the permit); and
- ii. Ecology does not notify the current discharger and new discharger of intent to revoke coverage under the general permit. If this notice is not given, the transfer is effective on the date specified in the written agreement.

When a current discharger (Permittee) transfers a portion of a permitted site, the current discharger must also indicate the remaining permitted acreage after the transfer. Transfers do not require public notice.

## **3. *Modification of Coverage Form***

Permittees must notify Ecology regarding any changes to the information provided on the NOI by submitting an Update/Modification of Permit Coverage form in accordance with General Conditions G6 and G19. Examples of such changes include, but are not limited to:

- i. Changes to the Permittee's mailing address,
- ii. Changes to the on-site contact person information, and
- iii. Changes to the area/acreage affected by construction activity.

## B. Public Notice

For new or previously unpermitted construction activities, the applicant must publish a public notice at least one time each week for two consecutive weeks, at least 7 days apart, in a newspaper with general circulation in the county where the construction is to take place. The notice must be run after the NOI has been submitted and must contain:

1. A statement that *“The applicant is seeking coverage under the Washington State Department of Ecology’s Construction Stormwater NPDES and State Waste Discharge General Permit.”*
2. The name, address, and location of the construction site.
3. The name and address of the applicant.
4. The type of construction activity that will result in a discharge (for example, residential construction, commercial construction, etc.), and the total number of acres to be disturbed over the lifetime of the project.
5. The name of the receiving water(s) (that is, the surface water(s) to which the site will discharge), or, if the discharge is through a storm sewer system, the name of the operator of the system and the receiving water(s) the system discharges to.
6. The statement: *Any persons desiring to present their views to the Washington State Department of Ecology regarding this application, or interested in Ecology’s action on this application, may notify Ecology in writing no later than 30 days of the last date of publication of this notice. Ecology reviews public comments and considers whether discharges from this project would cause a measurable change in receiving water quality, and, if so, whether the project is necessary and in the overriding public interest according to Tier II antidegradation requirements under WAC 173-201A-320. Comments can be submitted to: Department of Ecology, PO Box 47696, Olympia, Washington 98504-7696 Attn: Water Quality Program, Construction Stormwater.*

## S3. COMPLIANCE WITH STANDARDS

- A. Discharges must not** cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), groundwater quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the Federal water quality criteria applicable to Washington. (40 CFR Part 131.45) Discharges that are not in compliance with these standards are prohibited.
- B. Prior to the discharge** of stormwater and non-stormwater to waters of the State, the Permittee must apply All Known, Available, and Reasonable methods of prevention, control, and Treatment (AKART). This includes the preparation and implementation of an adequate SWPPP, with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.
- C. Ecology presumes** that a Permittee complies with water quality standards unless discharge monitoring data or other site-specific information demonstrates that a discharge causes or contributes to a violation of water quality standards, when the Permittee complies with the following conditions. The Permittee must fully:

1. Comply with all permit conditions, including; planning, sampling, monitoring, reporting, and recordkeeping conditions.
  2. Implement stormwater BMPs contained in stormwater management manuals published or approved by Ecology, or BMPs that are demonstrably equivalent to BMPs contained in stormwater management manuals published or approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control. (For purposes of this section, the stormwater manuals listed in Appendix 10 of the *Phase I Municipal Stormwater Permit* are approved by Ecology.)
- D. Where construction sites** also discharge to groundwater, the groundwater discharges must also meet the terms and conditions of this CSWGP. Permittees who discharge to groundwater through an injection well must also comply with any applicable requirements of the Underground Injection Control (UIC) regulations, Chapter 173-218 WAC.

## **S4. MONITORING REQUIREMENTS, BENCHMARKS, AND REPORTING TRIGGERS**

### **A. Site Log Book**

The Permittee must maintain a site log book that contains a record of the implementation of the SWPPP and other permit requirements, including the installation and maintenance of BMPs, site inspections, and stormwater monitoring.

### **B. Site Inspections**

Construction sites one (1) acre or larger that discharge stormwater to surface waters of the State must have site inspections conducted by a Certified Erosion and Sediment Control Lead (CESCL). Sites less than one (1) acre may have a person without CESCL certification conduct inspections. (See Special Conditions S4.B.3 and B.4, below, for detailed requirements of the Permittee's CESCL.)

Site inspections must include all areas disturbed by construction activities, all BMPs, and all stormwater discharge points under the Permittee's operational control.

1. The Permittee must have staff knowledgeable in the principles and practices of erosion and sediment control. The CESCL (sites one acre or more) or inspector (sites less than one acre) must have the skills to assess the:
  - a. Site conditions and construction activities that could impact the quality of stormwater; and
  - b. Effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges. The SWPPP must identify the CESCL or inspector, who must be present on site or on-call at all times. The CESCL (sites one (1) acre or more) must obtain this certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology. (See BMP C160 in the manual, referred to in Special Condition S9.C.1 and 2.)
2. The CESCL or inspector must examine stormwater visually for the presence of suspended sediment, turbidity, discoloration, and oil sheen. BMP effectiveness must be evaluated to

determine if it is necessary to install, maintain, or repair BMPs to improve the quality of stormwater discharges.

Based on the results of the inspection, the Permittee must correct the problems identified, by:

- a. Reviewing the SWPPP for compliance with Special Condition S9 and making appropriate revisions within 7 days of the inspection.
  - b. Immediately beginning the process of fully implementing and maintaining appropriate source control and/or treatment BMPs, within 10 days of the inspection. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
  - c. Documenting BMP implementation and maintenance in the site log book.
3. The CESCL or inspector must inspect all areas disturbed by construction activities, all BMPs, and all stormwater discharge points at least once every calendar week and within 24 hours of any discharge from the site. (For purposes of this condition, individual discharge events that last more than one (1) day do not require daily inspections. For example, if a stormwater pond discharges continuously over the course of a week, only one (1) inspection is required that week.) Inspection frequency may be reduced to once every calendar month for inactive sites that are temporarily stabilized.
4. The Permittee must summarize the results of each inspection in an inspection report or checklist and enter the report/checklist into, or attach it to, the site log book. At a minimum, each inspection report or checklist must include:
  - a. Inspection date and time.
  - b. Weather information.
  - c. The general conditions during inspection.
  - d. The approximate amount of precipitation since the last inspection.
  - e. The approximate amount of precipitation within the last 24 hours.
  - f. A summary or list of all implemented BMPs, including observations of all erosion/sediment control structures or practices.
  - g. A description of:
    - i. BMPs inspected (including location).
    - ii. BMPs that need maintenance and why.
    - iii. BMPs that failed to operate as designed or intended, and
    - iv. Where additional or different BMPs are needed, and why.
  - h. A description of stormwater discharged from the site. The Permittee must note the presence of suspended sediment, turbidity, discoloration, and oil sheen, as applicable.

- i. Any water quality monitoring performed during inspection.
- j. General comments and notes, including a brief description of any BMP repairs, maintenance, or installations made following the inspection.
- k. An implementation schedule for the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the SWPPP and the permit.
- l. A summary report of the inspection.
- m. The name, title, and signature of the person conducting the site inspection, a phone number or other reliable method to reach this person, and the following statement:  
*I certify that this report is true, accurate, and complete to the best of my knowledge and belief.*

**Table 3 Summary of Primary Monitoring Requirements**

Size of Soil Disturbance <sup>1</sup>	Weekly Site Inspections	Weekly Sampling w/ Turbidity Meter	Weekly Sampling w/ Transparency Tube	Weekly pH Sampling <sup>2</sup>	CESCL Required for Inspections?
Sites that disturb less than 1 acre, but are part of a larger Common Plan of Development	Required	Not Required	Not Required	Not Required	No
Sites that disturb 1 acre or more, but fewer than 5 acres	Required	Sampling Required – either method <sup>3</sup>		Required	Yes
Sites that disturb 5 acres or more	Required	Required	Not Required <sup>4</sup>	Required	Yes

<sup>1</sup> Soil disturbance is calculated by adding together all areas that will be affected by construction activity. Construction activity means clearing, grading, excavation, and any other activity that disturbs the surface of the land, including ingress/egress from the site.

<sup>2</sup> If construction activity results in the disturbance of 1 acre or more, and involves significant concrete work (1,000 cubic yards of concrete or recycled concrete placed or poured over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer stormwater collection system that drains to other surface waters of the State, the Permittee must conduct pH sampling in accordance with Special Condition S4.D.

<sup>3</sup> Sites with one or more acres, but fewer than 5 acres of soil disturbance, must conduct turbidity or transparency sampling in accordance with Special Condition S4.C.4.a or b.

<sup>4</sup> Sites equal to or greater than 5 acres of soil disturbance must conduct turbidity sampling using a turbidity meter in accordance with Special Condition S4.C.4.a.

### **C. Turbidity/Transparency Sampling Requirements**

#### **1. Sampling Methods**

- a. If construction activity involves the disturbance of five (5) acres or more, the Permittee must conduct turbidity sampling per Special Condition S4.C.4.a, below.
- b. If construction activity involves one (1) acre or more but fewer than five (5) acres of soil disturbance, the Permittee must conduct either transparency sampling *or* turbidity sampling per Special Condition S4.C.4.a or b, below.

#### **2. Sampling Frequency**

- a. The Permittee must sample all discharge points at least once every calendar week when stormwater (or authorized non-stormwater) discharges from the site or enters any on-site surface waters of the state (for example, a creek running through a site); sampling is not required on sites that disturb less than an acre.
- b. Samples must be representative of the flow and characteristics of the discharge.
- c. Sampling is not required when there is no discharge during a calendar week.
- d. Sampling is not required outside of normal working hours or during unsafe conditions.
- e. If the Permittee is unable to sample during a monitoring period, the Permittee must include a brief explanation in the monthly Discharge Monitoring Report (DMR).
- f. Sampling is not required before construction activity begins.
- g. The Permittee may reduce the sampling frequency for temporarily stabilized, inactive sites to once every calendar month.

#### **3. Sampling Locations**

- a. Sampling is required at all points where stormwater associated with construction activity (or authorized non-stormwater) is discharged off site, including where it enters any on-site surface waters of the state (for example, a creek running through a site).
- b. The Permittee may discontinue sampling at discharge points that drain areas of the project that are fully stabilized to prevent erosion.
- c. The Permittee must identify all sampling point(s) in the SWPPP and on the site map and clearly mark these points in the field with a flag, tape, stake or other visible marker.
- d. Sampling is not required for discharge that is sent directly to sanitary or combined sewer systems.
- e. The Permittee may discontinue sampling at discharge points in areas of the project where the Permittee no longer has operational control of the construction activity.



#### 4. Sampling and Analysis Methods

- a. The Permittee performs turbidity analysis with a calibrated turbidity meter (turbidimeter) either on site or at an accredited lab. The Permittee must record the results in the site log book in nephelometric turbidity units (NTUs).
- b. The Permittee performs transparency analysis on site with a 1¾ inch diameter, 60 centimeter (cm)-long transparency tube. The Permittee will record the results in the site log book in centimeters (cm).

**Table 4 Monitoring and Reporting Requirements**

Parameter	Unit	Analytical Method	Sampling Frequency	Benchmark Value
Turbidity	NTU	SM2130	Weekly, if discharging	25 NTUs
Transparency	Cm	Manufacturer instructions, or Ecology guidance	Weekly, if discharging	33 cm

#### 5. Turbidity/Transparency Benchmark Values and Reporting Triggers

The benchmark value for turbidity is 25 NTUs. The benchmark value for transparency is 33 centimeters (cm). Note: Benchmark values do not apply to discharges to segments of water bodies on Washington State's 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus; these discharges are subject to a numeric effluent limit for turbidity. Refer to Special Condition S8 for more information and follow S5.F – Noncompliance Notification for reporting requirements applicable to discharges which exceed the numeric effluent limit for turbidity.

- a. Turbidity 26 – 249 NTUs, or Transparency 32 – 7 cm:

If the discharge turbidity is 26 to 249 NTUs; or if discharge transparency is 32 to 7 cm, the Permittee must:

- i. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs, and no later than 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- ii. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.
- iii. Document BMP implementation and maintenance in the site log book.

- b. Turbidity 250 NTUs or greater, or Transparency 6 cm or less:

If a discharge point's turbidity is 250 NTUs or greater, or if discharge transparency is less than or equal to 6 cm, the Permittee must complete the reporting and adaptive

management process described below. For discharges which are subject to a numeric effluent limit for turbidity, see S5.F – Noncompliance Notification.

- i. Within 24 hours, telephone or submit an electronic report to the applicable Ecology Region's Environmental Report Tracking System (ERTS) number (or through Ecology's Water Quality Permitting Portal [WQWebPortal] – Permit Submittals when the form is available), in accordance with Special Condition S5.A.
  - **Central Region** (Okanogan, Chelan, Douglas, Kittitas, Yakima, Klickitat, Benton): (509) 575-2490
  - **Eastern Region** (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman): (509) 329-3400
  - **Northwest Region** (Kitsap, Snohomish, Island, King, San Juan, Skagit, Whatcom): (425) 649-7000
  - **Southwest Region** (Grays Harbor, Lewis, Mason, Thurston, Pierce, Clark, Cowlitz, Skamania, Wahkiakum, Clallam, Jefferson, Pacific): (360) 407-6300

These numbers and a link to the ERTS reporting page are also listed at the following website: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>.

- ii. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- iii. Sample discharges daily until:
  - a) Turbidity is 25 NTUs (or lower); or
  - b) Transparency is 33 cm (or greater); or
  - c) The Permittee has demonstrated compliance with the water quality standard for turbidity:
    - 1) No more than 5 NTUs over background turbidity, if background is less than 50 NTUs, or
    - 2) No more than 10% over background turbidity, if background is 50 NTUs or greater; or

\*Note: background turbidity in the receiving water must be measured immediately upstream (upgradient) or outside of the area of influence of the discharge.
  - d) The discharge stops or is eliminated.
- iv. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within seven (7) days of the date the discharge exceeded the benchmark.

- v. Document BMP implementation and maintenance in the site log book.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with permit benchmarks.

#### **D. pH Sampling Requirements – Significant Concrete Work or Engineered Soils**

If construction activity results in the disturbance of 1 acre or more, *and* involves significant concrete work (significant concrete work means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer system that drains to surface waters of the State, the Permittee must conduct pH sampling as set forth below. Note: In addition, discharges to segments of water bodies on Washington State's 303(d) list (Category 5) for high pH are subject to a numeric effluent limit for pH; refer to Special Condition S8.

1. The Permittee must perform pH analysis on site with a calibrated pH meter, pH test kit, or wide range pH indicator paper. The Permittee must record pH sampling results in the site log book.
2. During the applicable pH monitoring period defined below, the Permittee must obtain a representative sample of stormwater and conduct pH analysis at least once per week.
  - a. For sites with significant concrete work, the Permittee must begin the pH sampling period when the concrete is first placed or poured and exposed to precipitation, and continue weekly throughout and after the concrete placement, pour and curing period, until stormwater pH is in the range of 6.5 to 8.5 (su).
  - b. For sites with recycled concrete where monitoring is required, the Permittee must begin the weekly pH sampling period when the recycled concrete is first exposed to precipitation and must continue until the recycled concrete is fully stabilized with the stormwater pH in the range of 6.5 to 8.5 (su).
  - c. For sites with engineered soils, the Permittee must begin the pH sampling period when the soil amendments are first exposed to precipitation and must continue until the area of engineered soils is fully stabilized.
3. The Permittee must sample pH in the sediment trap/pond(s) or other locations that receive stormwater runoff from the area of significant concrete work or engineered soils before the stormwater discharges to surface waters.
4. The benchmark value for pH is 8.5 standard units. Anytime sampling indicates that pH is 8.5 or greater, the Permittee must either:
  - a. Prevent the high pH water (8.5 or above) from entering storm sewer systems or surface waters of the state; *or*
  - b. If necessary, adjust or neutralize the high pH water until it is in the range of pH 6.5 to 8.5 (su) using an appropriate treatment BMP such as carbon dioxide (CO<sub>2</sub>) sparging, dry ice or food grade vinegar. The Permittee must obtain written approval from Ecology before using any form of chemical treatment other than CO<sub>2</sub> sparging, dry ice or food grade vinegar.

## S5. REPORTING AND RECORDKEEPING REQUIREMENTS

### A. High Turbidity Reporting

Anytime sampling performed in accordance with Special Condition S4.C indicates turbidity has reached the 250 NTUs or more (or transparency less than or equal to 6 cm), high turbidity reporting level, the Permittee must notify Ecology within 24 hours of analysis either by calling the applicable Ecology Region's Environmental Report Tracking System (ERTS) number by phone or by submitting an electronic ERTS report (through Ecology's Water Quality Permitting Portal (WQWebPortal) – Permit Submittals when the form is available). See the CSWGP website for links to ERTS and the WQWebPortal. (<http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>) Also, see phone numbers in Special Condition S4.C.5.b.i.

### B. Discharge Monitoring Reports (DMRs)

Permittees required to conduct water quality sampling in accordance with Special Conditions S4.C (Turbidity/Transparency), S4.D (pH), S8 (303[d]/TMDL sampling), and/or G12 (Additional Sampling) must submit the results to Ecology.

Permittees must submit monitoring data using Ecology's WQWebDMR web application accessed through Ecology's Water Quality Permitting Portal.

Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper copy DMR at:

Department of Ecology  
Water Quality Program - Construction Stormwater  
PO Box 47696  
Olympia, WA 98504-7696

Permittees who obtain a waiver not to use WQWebDMR must use the forms provided to them by Ecology; submittals must be mailed to the address above. Permittees must submit DMR forms to be received by Ecology within 15 days following the end of each month.

If there was no discharge during a given monitoring period, all Permittees must submit a DMR as required with "no discharge" entered in place of the monitoring results. DMRs are required for the full duration of permit coverage (from the first full month following the effective date of permit coverage up until Ecology has approved termination of the coverage). For more information, contact Ecology staff using information provided at the following website: [www.ecy.wa.gov/programs/wq/permits/paris/contacts.html](http://www.ecy.wa.gov/programs/wq/permits/paris/contacts.html).

### C. Records Retention

The Permittee must retain records of all monitoring information (site log book, sampling results, inspection reports/checklists, etc.), Stormwater Pollution Prevention Plan, copy of the permit coverage letter (including Transfer of Coverage documentation) and any other documentation of compliance with permit requirements for the entire life of the construction project and for a minimum of five (5) years following the termination of permit coverage. Such information must include all calibration and maintenance records, and records of all data used to complete the application for this permit. This period of retention must be extended during

the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

#### **D. Recording Results**

For each measurement or sample taken, the Permittee must record the following information:

1. Date, place, method, and time of sampling or measurement.
2. The first and last name of the individual who performed the sampling or measurement.
3. The date(s) the analyses were performed.
4. The first and last name of the individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

#### **E. Additional Monitoring by the Permittee**

If the Permittee samples or monitors any pollutant more frequently than required by this permit using test procedures specified by Special Condition S4 of this permit, the sampling results for this monitoring must be included in the calculation and reporting of the data submitted in the Permittee's DMR.

#### **F. Noncompliance Notification**

In the event the Permittee is unable to comply with any part of the terms and conditions of this permit, and the resulting noncompliance may cause a threat to human health or the environment (such as but not limited to spills or fuels or other materials, catastrophic pond or slope failure, and discharges that violate water quality standards), or exceed numeric effluent limitations (see S8 – Discharges to 303(d) or TMDL Waterbodies), the Permittee must, upon becoming aware of the circumstance:

1. Notify Ecology within 24 hours of the failure to comply by calling the applicable Regional office ERTS phone number (refer to Special Condition S4.C.5.b.i, or go to <https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue> to find contact information for the regional offices.)
2. Immediately take action to prevent the discharge/pollution, or otherwise stop or correct the noncompliance, and, if applicable, repeat sampling and analysis of any noncompliance immediately and submit the results to Ecology within five (5) days of becoming aware of the violation (See S5.F.3, below, for details on submitting results in a report).
3. Submit a detailed written report to Ecology within five (5) days of the time the Permittee becomes aware of the circumstances, unless requested earlier by Ecology. The report must be submitted using Ecology's Water Quality Permitting Portal (WQWebPortal) – Permit Submittals, unless a waiver from electronic reporting has been granted according to S5.B. The report must contain a description of the noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Permittee must report any unanticipated bypass and/or upset that exceeds any effluent limit in the permit in accordance with the 24-hour reporting requirement contained in 40 C.F.R. 122.41(l)(6).

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply. Upon request of the Permittee, Ecology may waive the requirement for a written report on a case-by-case basis, if the immediate notification is received by Ecology within 24 hours.

#### **G. Access to Plans and Records**

1. The Permittee must retain the following permit documentation (plans and records) on site, or within reasonable access to the site, for use by the operator or for on-site review by Ecology or the local jurisdiction:
  - a. General Permit
  - b. Permit Coverage Letter
  - c. Stormwater Pollution Prevention Plan (SWPPP)
  - d. Site Log Book
  - e. Erosivity Waiver (if applicable)
2. The Permittee must address written requests for plans and records listed above (Special Condition S5.G.1) as follows:
  - a. The Permittee must provide a copy of plans and records to Ecology within 14 days of receipt of a written request from Ecology.
  - b. The Permittee must provide a copy of plans and records to the public when requested in writing. Upon receiving a written request from the public for the Permittee's plans and records, the Permittee must either:
    - i. Provide a copy of the plans and records to the requester within 14 days of a receipt of the written request; *or*
    - ii. Notify the requester within 10 days of receipt of the written request of the location and times within normal business hours when the plans and records may be viewed; and provide access to the plans and records within 14 days of receipt of the written request; *or*

Within 14 days of receipt of the written request, the Permittee may submit a copy of the plans and records to Ecology for viewing and/or copying by the requester at an Ecology office, or a mutually agreed location. If plans and records are viewed and/or copied at a location other than at an Ecology office, the Permittee will provide reasonable access to copying services for which a reasonable fee may be charged. The Permittee must notify the requester within 10 days of receipt of the request where the plans and records may be viewed and/or copied.

## S6. PERMIT FEES

The Permittee must pay permit fees assessed by Ecology. Fees for stormwater discharges covered under this permit are established by Chapter 173-224 WAC. Ecology continues to assess permit fees until the permit is terminated in accordance with Special Condition S10 or revoked in accordance with General Condition G5.

## S7. SOLID AND LIQUID WASTE DISPOSAL

The Permittee must handle and dispose of solid and liquid wastes generated by construction activity, such as demolition debris, construction materials, contaminated materials, and waste materials from maintenance activities, including liquids and solids from cleaning catch basins and other stormwater facilities, in accordance with:

- A. Special Condition S3, Compliance with Standards.
- B. WAC 173-216-110.
- C. Other applicable regulations.

## S8. DISCHARGES TO 303(d) OR TMDL WATERBODIES

### A. Sampling and Numeric Effluent Limits For Certain Discharges to 303(d)-Listed Water Bodies

1. Permittees who discharge to segments of water bodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorus, must conduct water quality sampling according to the requirements of this section, and Special Conditions S4.C.2.b-f and S4.C.3.b-d, and must comply with the applicable numeric effluent limitations in S8.C and S8.D.
2. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current listing by Ecology of impaired waters (Category 5) that exists on January 1, 2021, or the date when the operator's complete permit application is received by Ecology, whichever is later.

### B. Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters

Construction sites that discharge to a TMDL or 303(d)-listed waterbody are not eligible for coverage under this permit *unless* the operator:

1. Prevents exposing stormwater to pollutants for which the waterbody is impaired, and retains documentation in the SWPPP that details procedures taken to prevent exposure on site; *or*
2. Documents that the pollutants for which the waterbody is impaired are not present at the site, and retains documentation of this finding within the SWPPP; *or*
3. Provides Ecology with data indicating the discharge is not expected to cause or contribute to an exceedance of a water quality standard, and retains such data on site with the SWPPP. The operator must provide data and other technical information to Ecology that sufficiently demonstrate:
  - a. For discharges to waters without an EPA-approved or -established TMDL, that the discharge of the pollutant for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the waterbody; *or*
  - b. For discharges to waters with an EPA-approved or -established TMDL, that there is sufficient remaining wasteload allocation in the TMDL to allow construction stormwater discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards.

Operators of construction sites are eligible for coverage under this permit only after Ecology makes an affirmative determination that the *discharge will not cause or contribute to the existing impairment or exceed the TMDL*.

**C. Sampling and Numeric Effluent Limits for Discharges to Water Bodies on the 303(d) List for Turbidity, Fine Sediment, or Phosphorus**

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus must conduct turbidity sampling in accordance with Special Condition S4.C.2 and comply with either of the numeric effluent limits noted in Table 5 below.
2. As an alternative to the 25 NTUs effluent limit noted in Table 5 below (applied at the point where stormwater [or authorized non-stormwater] is discharged off-site), Permittees may choose to comply with the surface water quality standard for turbidity. The standard is: no more than 5 NTUs over background turbidity when the background turbidity is 50 NTUs or less, or no more than a 10% increase in turbidity when the background turbidity is more than 50 NTUs. In order to use the water quality standard requirement, the sampling must take place at the following locations:
  - a. Background turbidity in the 303(d)-listed receiving water immediately upstream (upgradient) or outside the area of influence of the discharge.
  - b. Turbidity at the point of discharge into the 303(d)-listed receiving water, inside the area of influence of the discharge.
3. Discharges that exceed the numeric effluent limit for turbidity constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.



**Table 5 Turbidity, Fine Sediment & Phosphorus Sampling and Limits for 303(d)-Listed Waters**

Parameter identified in 303(d) listing	Parameter Sampled	Unit	Analytical Method	Sampling Frequency	Numeric Effluent Limit <sup>1</sup>
<ul style="list-style-type: none"> <li>Turbidity</li> <li>Fine Sediment</li> <li>Phosphorus</li> </ul>	Turbidity	NTU	SM2130	Weekly, if discharging	25 NTUs, at the point where stormwater is discharged from the site; <b>OR</b> In compliance with the surface water quality standard for turbidity (S8.C.2.a)

<sup>1</sup> Permittees subject to a numeric effluent limit for turbidity may, at their discretion, choose either numeric effluent limitation based on site-specific considerations including, but not limited to, safety, access and convenience.

#### **D. Discharges to Water Bodies on the 303(d) List for High pH**

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for high pH must conduct pH sampling in accordance with the table below, and comply with the numeric effluent limit of pH 6.5 to 8.5 su (Table 6).

**Table 6 pH Sampling and Limits for 303(d)-Listed Waters**

Parameter identified in 303(d) listing	Parameter Sampled/Units	Analytical Method	Sampling Frequency	Numeric Effluent Limit
High pH	pH /Standard Units	pH meter	Weekly, if discharging	In the range of 6.5 – 8.5 su

2. At the Permittee's discretion, compliance with the limit shall be assessed at one of the following locations:
  - a. Directly in the 303(d)-listed waterbody segment, inside the immediate area of influence of the discharge; *or*
  - b. Alternatively, the Permittee may measure pH at the point where the discharge leaves the construction site, rather than in the receiving water.
3. Discharges that exceed the numeric effluent limit for pH (outside the range of 6.5 – 8.5 su) constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

#### **E. Sampling and Limits for Sites Discharging to Waters Covered by a TMDL or another Pollution Control Plan**

1. Discharges to a waterbody that is subject to a Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus must be consistent with the TMDL. Refer to <http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyWria/TMDLbyWria.html> for more information on TMDLs.
  - a. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges must be consistent with any specific waste load allocations or requirements established by the applicable TMDL.
    - i. The Permittee must sample discharges weekly, unless otherwise specified by the TMDL, to evaluate compliance with the specific waste load allocations or requirements.
    - ii. Analytical methods used to meet the monitoring requirements must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136.
    - iii. Turbidity and pH methods need not be accredited or registered unless conducted at a laboratory which must otherwise be accredited or registered.
  - b. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but has not identified specific requirements, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
  - c. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
  - d. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.

## S9. STORMWATER POLLUTION PREVENTION PLAN

The Permittee must prepare and properly implement an adequate Stormwater Pollution Prevention Plan (SWPPP) for construction activity in accordance with the requirements of this permit beginning with initial soil disturbance and until final stabilization.

### A. The Permittee's SWPPP must meet the following objectives:

1. To identify best management practices (BMPs) which prevent erosion and sedimentation, and to reduce, eliminate or prevent stormwater contamination and water pollution from construction activity.
2. To prevent violations of surface water quality, groundwater quality, or sediment management standards.
3. To control peak volumetric flow rates and velocities of stormwater discharges.

## **B. General Requirements**

1. The SWPPP must include a narrative and drawings. All BMPs must be clearly referenced in the narrative and marked on the drawings. The SWPPP narrative must include documentation to explain and justify the pollution prevention decisions made for the project. Documentation must include:
  - a. Information about existing site conditions (topography, drainage, soils, vegetation, etc.).
  - b. Potential erosion problem areas.
  - c. The 13 elements of a SWPPP in Special Condition S9.D.1-13, including BMPs used to address each element.
  - d. Construction phasing/sequence and general BMP implementation schedule.
  - e. The actions to be taken if BMP performance goals are not achieved—for example, a contingency plan for additional treatment and/or storage of stormwater that would violate the water quality standards if discharged.
  - f. Engineering calculations for ponds, treatment systems, and any other designed structures. When a treatment system requires engineering calculations, these calculations must be included in the SWPPP. Engineering calculations do not need to be included in the SWPPP for treatment systems that do not require such calculations.
2. The Permittee must modify the SWPPP if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The Permittee must then:
  - a. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the inspection or investigation.
  - b. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than 10 days from the inspection or investigation. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
  - c. Document BMP implementation and maintenance in the site log book.

The Permittee must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

## **C. Stormwater Best Management Practices (BMPs)**

BMPs must be consistent with:

1. *Stormwater Management Manual for Western Washington* (most current approved edition at the time this permit was issued), for sites west of the crest of the Cascade Mountains; *or*

2. *Stormwater Management Manual for Eastern Washington* (most current approved edition at the time this permit was issued), for sites east of the crest of the Cascade Mountains; *or*
3. Revisions to the manuals listed in Special Condition S9.C.1 & 2, or other stormwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230; *or*
4. Documentation in the SWPPP that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable stormwater management manuals, including:
  - a. The technical basis for the selection of all stormwater BMPs (scientific, technical studies, and/or modeling) that support the performance claims for the BMPs being selected.
  - b. An assessment of how the selected BMP will satisfy AKART requirements and the applicable federal technology-based treatment requirements under 40 CFR part 125.3.

#### **D. SWPPP – Narrative Contents and Requirements**

The Permittee must include each of the 13 elements below in Special Condition S9.D.1-13 in the narrative of the SWPPP and implement them unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the SWPPP.

1. Preserve Vegetation/Mark Clearing Limits
  - a. Before beginning land-disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area.
  - b. Retain the duff layer, native topsoil, and natural vegetation in an undisturbed state to the maximum degree practicable.
2. Establish Construction Access
  - a. Limit construction vehicle access and exit to one route, if possible.
  - b. Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking sediment onto roads.
  - c. Locate wheel wash or tire baths on site, if the stabilized construction entrance is not effective in preventing tracking sediment onto roads.
  - d. If sediment is tracked off site, clean the affected roadway thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Remove sediment from roads by shoveling, sweeping, or pickup and transport of the sediment to a controlled sediment disposal area.
  - e. Conduct street washing only after sediment removal in accordance with Special Condition S9.D.2.d.
  - f. Control street wash wastewater by pumping back on site or otherwise preventing it from discharging into systems tributary to waters of the State.

### 3. Control Flow Rates

- a. Protect properties and waterways downstream of construction sites from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site, as required by local plan approval authority.
- b. Where necessary to comply with Special Condition S9.D.3.a, construct stormwater infiltration or detention BMPs as one of the first steps in grading. Assure that detention BMPs function properly before constructing site improvements (for example, impervious surfaces).
- c. If permanent infiltration ponds are used for flow control during construction, protect these facilities from sedimentation during the construction phase.

### 4. Install Sediment Controls

The Permittee must design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, the Permittee must:

- a. Construct sediment control BMPs (sediment ponds, traps, filters, infiltration facilities, etc.) as one of the first steps in grading. These BMPs must be functional before other land disturbing activities take place.
- b. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.
- c. Direct stormwater runoff from disturbed areas through a sediment pond or other appropriate sediment removal BMP, before the runoff leaves a construction site or before discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard of Special Condition S9.D.3.a.
- d. Locate BMPs intended to trap sediment on site in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.
- e. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible.
- f. Where feasible, design outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column.

### 5. Stabilize Soils

- a. The Permittee must stabilize exposed and unworked soils by application of effective BMPs that prevent erosion. Applicable BMPs include, but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion

control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control.

- b. The Permittee must control stormwater volume and velocity within the site to minimize soil erosion.
- c. The Permittee must control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.
- d. Depending on the geographic location of the project, the Permittee must not allow soils to remain exposed and unworked for more than the time periods set forth below to prevent erosion.

**West of the Cascade Mountains Crest**

During the dry season (May 1 - September 30): 7 days

During the wet season (October 1 - April 30): 2 days

**East of the Cascade Mountains Crest, except for Central Basin\***

During the dry season (July 1 - September 30): 10 days

During the wet season (October 1 - June 30): 5 days

**The Central Basin\*, East of the Cascade Mountains Crest**

During the dry Season (July 1 - September 30): 30 days

During the wet season (October 1 - June 30): 15 days

**\*Note: The Central Basin** is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches.

- e. The Permittee must stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast.
- f. The Permittee must stabilize soil stockpiles from erosion, protected with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.
- g. The Permittee must minimize the amount of soil exposed during construction activity.
- h. The Permittee must minimize the disturbance of steep slopes.
- i. The Permittee must minimize soil compaction and, unless infeasible, preserve topsoil.

**6. Protect Slopes**

- a. The Permittee must design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (for example, track walking).
- b. The Permittee must divert off-site stormwater (run-on) or groundwater away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales. Off-site stormwater should be managed separately from stormwater generated on the site.
- c. At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion.

- i. West of the Cascade Mountains Crest: Temporary pipe slope drains must handle the peak 10-minute flow rate from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate predicted by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "landscaped area."
  - ii. East of the Cascade Mountains Crest: Temporary pipe slope drains must handle the expected peak flow rate from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.
- d. Place excavated material on the uphill side of trenches, consistent with safety and space considerations.
- e. Place check dams at regular intervals within constructed channels that are cut down a slope.
- 7. Protect Drain Inlets
  - a. Protect all storm drain inlets made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
  - b. Clean or remove and replace inlet protection devices when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).
- 8. Stabilize Channels and Outlets
  - a. Design, construct and stabilize all on-site conveyance channels to prevent erosion from the following expected peak flows:
    - i. West of the Cascade Mountains Crest: Channels must handle the peak 10-minute flow rate from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate indicated by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the WWHM to predict flows, bare soil areas should be modeled as "landscaped area."
    - ii. East of the Cascade Mountains Crest: Channels must handle the expected peak flow rate from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.
  - b. Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches at the outlets of all conveyance systems.

## 9. Control Pollutants

Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants. The Permittee must:

- a. Handle and dispose of all pollutants, including waste materials and demolition debris that occur on site in a manner that does not cause contamination of stormwater.
- b. Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. Minimize storage of hazardous materials on-site. Safety Data Sheets (SDS) should be supplied for all materials stored. Chemicals should be kept in their original labeled containers. On-site fueling tanks must include secondary containment. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume of the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.
- c. Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.
- d. Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, such as closed-loop recirculation or upland land application, or to the sanitary sewer with local sewer district approval.
- e. Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturers' label requirements for application rates and procedures.
- f. Use BMPs to prevent contamination of stormwater runoff by pH-modifying sources. The sources for this contamination include, but are not limited to: bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, recycled concrete stockpiles, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, concrete pumping and mixer washout waters. (Also refer to the definition for "concrete wastewater" in Appendix A – Definitions.)
- g. Adjust the pH of stormwater or authorized non-stormwater if necessary to prevent an exceedance of groundwater and/or surface water quality standards.
- h. Assure that washout of concrete trucks is performed off-site or in designated concrete washout areas only. Do not wash out concrete truck drums onto the ground, or into storm drains, open ditches, streets, or streams. Washout of small concrete handling equipment may be disposed of in a formed area awaiting concrete where it will not contaminate surface or groundwater. Do not dump excess concrete on site, except in designated concrete washout areas. Concrete spillage or concrete discharge directly to groundwater or surface waters of the State is



prohibited. At no time shall concrete be washed off into the footprint of an area where an infiltration BMP will be installed.

- i. Obtain written approval from Ecology before using any chemical treatment, with the exception of CO<sub>2</sub>, dry ice or food grade vinegar, to adjust pH.
- j. Uncontaminated water from water-only based shaft drilling for construction of building, road, and bridge foundations may be infiltrated provided the wastewater is managed in a way that prohibits discharge to surface waters. Prior to infiltration, water from water-only based shaft drilling that comes into contact with curing concrete must be neutralized until pH is in the range of 6.5 to 8.5 (su).

#### 10. Control Dewatering

- a. Permittees must discharge foundation, vault, and trench dewatering water, which have characteristics similar to stormwater runoff at the site, in conjunction with BMPs to reduce sedimentation before discharge to a sediment trap or sediment pond.
- b. Permittees may discharge clean, non-turbid dewatering water, such as well-point groundwater, to systems tributary to, or directly into surface waters of the State, as specified in Special Condition S9.D.8, provided the dewatering flow does not cause erosion or flooding of receiving waters. Do not route clean dewatering water through stormwater sediment ponds. Note that “surface waters of the State” may exist on a construction site as well as off site; for example, a creek running through a site.
- c. Other dewatering treatment or disposal options may include:
  - i. Infiltration
  - ii. Transport off site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters.
  - iii. Ecology-approved on-site chemical treatment or other suitable treatment technologies (See S9.D.9.i, regarding chemical treatment written approval).
  - iv. Sanitary or combined sewer discharge with local sewer district approval, if there is no other option.
  - v. Use of a sedimentation bag with discharge to a ditch or swale for small volumes of localized dewatering.
- d. Permittees must handle highly turbid or contaminated dewatering water separately from stormwater.

#### 11. Maintain BMPs

- a. Permittees must maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to assure continued performance of their intended function in accordance with BMP specifications.
- b. Permittees must remove all temporary erosion and sediment control BMPs within 30 days after achieving final site stabilization or after the temporary BMPs are no longer needed.

## 12. Manage the Project

- a. Phase development projects to the maximum degree practicable and take into account seasonal work limitations.
- b. Inspect, maintain and repair all BMPs as needed to assure continued performance of their intended function. Conduct site inspections and monitoring in accordance with Special Condition S4.
- c. Maintain, update, and implement the SWPPP in accordance with Special Conditions S3, S4, and S9.

## 13. Protect Low Impact Development (LID) BMPs

The primary purpose of on-site LID Stormwater Management is to reduce the disruption of the natural site hydrology through infiltration. LID BMPs are permanent facilities.

- a. Permittees must protect all LID BMPs (including, but not limited to, Bioretention and Rain Garden facilities) from sedimentation through installation and maintenance of erosion and sediment control BMPs on portions of the site that drain into the Bioretention and/or Rain Garden facilities. Restore the BMPs to their fully functioning condition if they accumulate sediment during construction. Restoring the facility must include removal of sediment and any sediment-laden bioretention/ rain garden soils, and replacing the removed soils with soils meeting the design specification.
- b. Permittees must maintain the infiltration capabilities of LID BMPs by protecting against compaction by construction equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to construction equipment.
- c. Permittees must control erosion and avoid introducing sediment from surrounding land uses onto permeable pavements. Do not allow muddy construction equipment on the base material or pavement. Do not allow sediment-laden runoff onto permeable pavements or base materials.
- d. Permittees must clean permeable pavements fouled with sediments or no longer passing an initial infiltration test using local stormwater manual methodology or the manufacturer's procedures.
- e. Permittees must keep all heavy equipment off existing soils under LID BMPs that have been excavated to final grade to retain the infiltration rate of the soils.

### **E. SWPPP – Map Contents and Requirements**

The Permittee's SWPPP must also include a vicinity map or general location map (for example, a USGS quadrangle map, a portion of a county or city map, or other appropriate map) with enough detail to identify the location of the construction site and receiving waters within one mile of the site.

The SWPPP must also include a legible site map (or maps) showing the entire construction site. The following features must be identified, unless not applicable due to site conditions.

1. The direction of north, property lines, and existing structures and roads.
2. Cut and fill slopes indicating the top and bottom of slope catch lines.

3. Approximate slopes, contours, and direction of stormwater flow before and after major grading activities.
4. Areas of soil disturbance and areas that will not be disturbed.
5. Locations of structural and nonstructural controls (BMPs) identified in the SWPPP.
6. Locations of off-site material, stockpiles, waste storage, borrow areas, and vehicle/equipment storage areas.
7. Locations of all surface water bodies, including wetlands.
8. Locations where stormwater or non-stormwater discharges off-site and/or to a surface waterbody, including wetlands.
9. Location of water quality sampling station(s), if sampling is required by state or local permitting authority.
10. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.
11. Location or proposed location of LID facilities.

## **S10. NOTICE OF TERMINATION**

Partial terminations of permit coverage are not authorized.

**A.** The site is eligible for termination of coverage when it has met any of the following conditions:

1. The site has undergone final stabilization, the Permittee has removed all temporary BMPs (except biodegradable BMPs clearly manufactured with the intention for the material to be left in place and not interfere with maintenance or land use), and all stormwater discharges associated with construction activity have been eliminated; *or*
2. All portions of the site that have not undergone final stabilization per Special Condition S10.A.1 have been sold and/or transferred (per Special Condition S2.A), and the Permittee no longer has operational control of the construction activity; *or*
3. For residential construction only, the Permittee has completed temporary stabilization and the homeowners have taken possession of the residences.

**B.** When the site is eligible for termination, the Permittee must submit a complete and accurate Notice of Termination (NOT) form, signed in accordance with General Condition G2, to:

Department of Ecology  
Water Quality Program - Construction Stormwater  
PO Box 47696  
Olympia, WA 98504-7696

When an electronic termination form is available, the Permittee may choose to submit a complete and accurate Notice of Termination (NOT) form through the Water Quality Permitting Portal rather than mailing a hardcopy as noted above.

The termination is effective on the 31st calendar day following the date Ecology receives a complete NOT form, unless Ecology notifies the Permittee that termination request is denied because the Permittee has not met the eligibility requirements in Special Condition S10.A.

Permittees are required to comply with all conditions and effluent limitations in the permit until the permit has been terminated.

Permittees transferring the property to a new property owner or operator/Permittee are required to complete and submit the Notice of Transfer form to Ecology, but are not required to submit a Notice of Termination form for this type of transaction.

# GENERAL CONDITIONS

## G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this general permit must be consistent with the terms and conditions of this general permit. Any discharge of any pollutant more frequent than or at a level in excess of that identified and authorized by the general permit must constitute a violation of the terms and conditions of this permit.

## G2. SIGNATORY REQUIREMENTS

- A. All permit applications must bear a certification of correctness to be signed:
  - 1. In the case of corporations, by a responsible corporate officer.
  - 2. In the case of a partnership, by a general partner of a partnership.
  - 3. In the case of sole proprietorship, by the proprietor.
  - 4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.
- B. All reports required by this permit and other information requested by Ecology (including NOIs, NOTs, and Transfer of Coverage forms) must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - 1. The authorization is made in writing by a person described above and submitted to Ecology.
  - 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.
- C. Changes to authorization. If an authorization under paragraph G2.B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G2.B.2 above must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D. Certification. Any person signing a document under this section must make the following certification:

*I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

### **G3. RIGHT OF INSPECTION AND ENTRY**

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

- A.** To enter upon the premises where a discharge is located or where any records are kept under the terms and conditions of this permit.
- B.** To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
- C.** To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D.** To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

### **G4. GENERAL PERMIT MODIFICATION AND REVOCATION**

This permit may be modified, revoked and reissued, or terminated in accordance with the provisions of Chapter 173-226 WAC. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

- A.** When a change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this permit.
- B.** When effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this permit.
- C.** When a water quality management plan containing requirements applicable to the category of dischargers covered under this permit is approved, or
- D.** When information is obtained that indicates cumulative effects on the environment from dischargers covered under this permit are unacceptable.

### **G5. REVOCATION OF COVERAGE UNDER THE PERMIT**

Pursuant to Chapter 43.21B RCW and Chapter 173-226 WAC, the Director may terminate coverage for any discharger under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:

- A.** Violation of any term or condition of this permit.
- B.** Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts.
- C.** A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.
- D.** Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
- E.** A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.
- F.** Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.

- G.** Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

The Director may require any discharger under this permit to apply for and obtain coverage under an individual permit or another more specific general permit. Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within ninety (90) days from the time of revocation and is submitted along with a complete individual permit application form.

## **G6. REPORTING A CAUSE FOR MODIFICATION**

The Permittee must submit a new application, or a supplement to the previous application, whenever a material change to the construction activity or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least sixty (60) days prior to any proposed changes. Filing a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

## **G7. COMPLIANCE WITH OTHER LAWS AND STATUTES**

Nothing in this permit will be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

## **G8. DUTY TO REAPPLY**

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit. The Permittee must reapply using the electronic application form (NOI) available on Ecology's website. Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

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Water Quality Program - Construction Stormwater  
PO Box 47696  
Olympia, WA 98504-7696

## **G9. REMOVED SUBSTANCE**

The Permittee must not re-suspend or reintroduce collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to the final effluent stream for discharge to state waters.

## **G10. DUTY TO PROVIDE INFORMATION**

The Permittee must submit to Ecology, within a reasonable time, all information that Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology, upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

## **G11. OTHER REQUIREMENTS OF 40 CFR**

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

## **G12. ADDITIONAL MONITORING**

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

## **G13. PENALTIES FOR VIOLATING PERMIT CONDITIONS**

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

## **G14. UPSET**

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in Special Condition S5.F, and; 4) the Permittee complied with any remedial measures required under this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

## **G15. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

## **G16. DUTY TO COMPLY**

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.



## **G17. TOXIC POLLUTANTS**

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

## **G18. PENALTIES FOR TAMPERING**

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than \$20,000 per day of violation, or imprisonment of not more than four (4) years, or both.

## **G19. REPORTING PLANNED CHANGES**

The Permittee must, as soon as possible, give notice to Ecology of planned physical alterations, modifications or additions to the permitted construction activity. The Permittee should be aware that, depending on the nature and size of the changes to the original permit, a new public notice and other permit process requirements may be required. Changes in activities that require reporting to Ecology include those that will result in:

- A.** The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
- B.** A significant change in the nature or an increase in quantity of pollutants discharged, including but not limited to: a 20% or greater increase in acreage disturbed by construction activity.
- C.** A change in or addition of surface water(s) receiving stormwater or non-stormwater from the construction activity.
- D.** A change in the construction plans and/or activity that affects the Permittee's monitoring requirements in Special Condition S4.

Following such notice, permit coverage may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

## **G20. REPORTING OTHER INFORMATION**

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to Ecology, it must promptly submit such facts or information.

## **G21. REPORTING ANTICIPATED NON-COMPLIANCE**

The Permittee must give advance notice to Ecology by submission of a new application or supplement thereto at least forty-five (45) days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of

operation and degradation of effluent quality, must be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

## **G22. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER THE PERMIT**

Any discharger authorized by this permit may request to be excluded from coverage under the general permit by applying for an individual permit. The discharger must submit to the Director an application as described in WAC 173-220-040 or WAC 173-216-070, whichever is applicable, with reasons supporting the request. These reasons will fully document how an individual permit will apply to the applicant in a way that the general permit cannot. Ecology may make specific requests for information to support the request. The Director will either issue an individual permit or deny the request with a statement explaining the reason for the denial. When an individual permit is issued to a discharger otherwise subject to the construction stormwater general permit, the applicability of the construction stormwater general permit to that Permittee is automatically terminated on the effective date of the individual permit.

## **G23. APPEALS**

- A.** The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal by any person within 30 days of issuance of this general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.
- B.** The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that discharger. Consideration of an appeal of general permit coverage of an individual discharger is limited to the general permit's applicability or nonapplicability to that individual discharger.
- C.** The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

## **G24. SEVERABILITY**

The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

## **G25. BYPASS PROHIBITED**

### **A. Bypass Procedures**

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited for stormwater events below the design criteria for stormwater management. Ecology may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, 3 or 4) is applicable.

- 1. Bypass of stormwater is consistent with the design criteria and part of an approved management practice in the applicable stormwater management manual.
- 2. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health.

3. Bypass of stormwater is unavoidable, unanticipated, and results in noncompliance of this permit.

This bypass is permitted only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
  - b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment facility.
  - c. Ecology is properly notified of the bypass as required in Special Condition S5.F of this permit.
4. A planned action that would cause bypass of stormwater and has the potential to result in noncompliance of this permit during a storm event.

The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

- a. A description of the bypass and its cause
  - b. An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
  - c. A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
  - d. The minimum and maximum duration of bypass under each alternative.
  - e. A recommendation as to the preferred alternative for conducting the bypass.
  - f. The projected date of bypass initiation.
  - g. A statement of compliance with SEPA.
  - h. A request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated.
  - i. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
5. For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above must be considered during

preparation of the Stormwater Pollution Prevention Plan (SWPPP) and must be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

Ecology will consider the following before issuing an administrative order for this type bypass:

- a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
- b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
- c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve, conditionally approve, or deny the request. The public must be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by Ecology under RCW 90.48.120.

#### **B. Duty to Mitigate**

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

## APPENDIX A – DEFINITIONS

**AKART** is an acronym for “**All Known, Available, and Reasonable** methods of prevention, control, and Treatment.” AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling pollution associated with a discharge.

**Applicable TMDL** means a TMDL for turbidity, fine sediment, high pH, or phosphorus, which was completed and approved by EPA before January 1, 2021, or before the date the operator’s complete permit application is received by Ecology, whichever is later. TMDLs completed after a complete permit application is received by Ecology become applicable to the Permittee only if they are imposed through an administrative order by Ecology, or through a modification of permit coverage.

**Applicant** means an *operator* seeking coverage under this permit.

**Benchmark** means a pollutant concentration used as a permit threshold, below which a pollutant is considered unlikely to cause a water quality violation, and above which it may. When pollutant concentrations exceed benchmarks, corrective action requirements take effect. Benchmark values are not water quality standards and are not numeric effluent limitations; they are indicator values.

**Best Management Practices (BMPs)** means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control stormwater associated with construction activity, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**Buffer** means an area designated by a local jurisdiction that is contiguous to and intended to protect a sensitive area.

**Bypass** means the intentional diversion of waste streams from any portion of a treatment facility.

**Calendar Day** A period of 24 consecutive hours starting at 12:00 midnight and ending the following 12:00 midnight.

**Calendar Week** (same as **Week**) means a period of seven consecutive days starting at 12:01 a.m. (0:01 hours) on Sunday.

**Certified Erosion and Sediment Control Lead (CESCL)** means a person who has current certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (See BMP C160 in the SWMM).

**Chemical Treatment** means the addition of chemicals to stormwater and/or authorized non-stormwater prior to filtration and discharge to surface waters.

**Clean Water Act (CWA)** means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC 1251 et seq.

**Combined Sewer** means a sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinance.

**Common Plan of Development or Sale** means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules and/or by different contractors, but still under a single plan. Examples include: 1) phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g., a development where lots are sold to separate builders); 2) a development plan that may be phased over multiple years, but is still under a consistent plan for long-term development; 3) projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility; and 4) linear projects such as roads, pipelines, or utilities. If the project is part of a common plan of development or sale, the disturbed area of the entire plan must be used in determining permit requirements.

**Composite Sample** means a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots).

**Concrete Wastewater** means any water used in the production, pouring and/or clean-up of concrete or concrete products, and any water used to cut, grind, wash, or otherwise modify concrete or concrete products. Examples include water used for or resulting from concrete truck/mixer/pumper/tool/chute rinsing or washing, concrete saw cutting and surfacing (sawing, coring, grinding, roughening, hydro-demolition, bridge and road surfacing). When stormwater combines with concrete wastewater, the resulting water is considered concrete wastewater and must be managed to prevent discharge to waters of the State, including groundwater.

**Construction Activity** means land disturbing operations including clearing, grading or excavation which disturbs the surface of the land (including off-site disturbance acreage related to construction-support activity). Such activities may include road construction, construction of residential houses, office buildings, or industrial buildings, site preparation, soil compaction, movement and stockpiling of topsoils, and demolition activity.

**Construction Support Activity** means off-site acreage that will be disturbed as a direct result of the construction project and will discharge stormwater. For example, off-site equipment staging yards, material storage areas, borrow areas, and parking areas.

**Contaminant** means any hazardous substance that does not occur naturally or occurs at greater than natural background levels. See definition of "hazardous substance" and WAC 173-340-200.

**Contaminated soil** means soil which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

**Contaminated groundwater** means groundwater which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

**Demonstrably Equivalent** means that the technical basis for the selection of all stormwater BMPs is documented within a SWPPP, including:

1. The method and reasons for choosing the stormwater BMPs selected.
2. The pollutant removal performance expected from the BMPs selected.

3. The technical basis supporting the performance claims for the BMPs selected, including any available data concerning field performance of the BMPs selected.
4. An assessment of how the selected BMPs will comply with state water quality standards.
5. An assessment of how the selected BMPs will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment (AKART).

**Department** means the Washington State Department of Ecology.

**Detention** means the temporary storage of stormwater to improve quality and/or to reduce the mass flow rate of discharge.

**Dewatering** means the act of pumping groundwater or stormwater away from an active construction site.

**Director** means the Director of the Washington State Department of Ecology or his/her authorized representative.

**Discharger** means an owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the Federal Clean Water Act.

**Domestic Wastewater** means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration or surface waters as may be present.

**Ecology** means the Washington State Department of Ecology.

**Engineered Soils** means the use of soil amendments including, but not limited, to Portland cement treated base (CTB), cement kiln dust (CKD), or fly ash to achieve certain desirable soil characteristics.

**Equivalent BMPs** means operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to groundwater than BMPs selected from the SWMM.

**Erosion** means the wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

**Erosion and Sediment Control BMPs** means BMPs intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, sediment traps, and ponds. Erosion and sediment control BMPs are synonymous with stabilization and structural BMPs.

**Federal Operator** is an entity that meets the definition of “Operator” in this permit and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, performing construction activity for any such department, agency, or instrumentality.

**Final Stabilization** (same as **fully stabilized** or **full stabilization**) means the completion of all soil disturbing activities at the site and the establishment of permanent vegetative cover, or equivalent permanent stabilization measures (such as pavement, riprap, gabions, or geotextiles) which will prevent erosion. See the applicable Stormwater Management Manual for more information on vegetative cover expectations and equivalent permanent stabilization measures.

**Groundwater** means water in a saturated zone or stratum beneath the land surface or a surface waterbody.

**Hazardous Substance** means any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6), or any dangerous or extremely dangerous waste as designated by rule under chapter 70.105 RCW; any hazardous sub-stance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under section 101(14) of the federal cleanup law, 42U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director by rule to present a threat to human health or the environment if released into the environment. The term hazardous substance does not include any of the following when contained in an underground storage tank from which there is not a release: crude oil or any fraction thereof or petroleum, if the tank is in compliance with all applicable federal, state, and local law.

**Injection Well** means a well that is used for the subsurface emplacement of fluids. (See **Well**.)

**Jurisdiction** means a political unit such as a city, town or county; incorporated for local self-government.

**National Pollutant Discharge Elimination System (NPDES)** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

**Notice of Intent (NOI)** means the application for, or a request for coverage under this general permit pursuant to WAC 173-226-200.

**Notice of Termination (NOT)** means a request for termination of coverage under this general permit as specified by Special Condition S10 of this permit.

**Operator** means any party associated with a construction project that meets either of the following two criteria:

- The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

**Permittee** means individual or entity that receives notice of coverage under this general permit.

**pH** means a liquid's measure of acidity or alkalinity. A pH of 7 is defined as neutral. Large variations above or below this value are considered harmful to most aquatic life.

**pH Monitoring Period** means the time period in which the pH of stormwater runoff from a site must be tested a minimum of once every seven days to determine if stormwater pH is between 6.5 and 8.5.



**Point Source** means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the State. This term does not include return flows from irrigated agriculture. (See the Fact Sheet for further explanation)

**Pollutant** means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste. This term does not include sewage from vessels within the meaning of section 312 of the CWA, nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the CWA.

**Pollution** means contamination or other alteration of the physical, chemical, or biological properties of waters of the State; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the State as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

**Process Wastewater** means any non-stormwater which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. If stormwater commingles with process wastewater, the commingled water is considered process wastewater.

**Receiving Water** means the waterbody at the point of discharge. If the discharge is to a storm sewer system, either surface or subsurface, the receiving water is the waterbody to which the storm system discharges. Systems designed primarily for other purposes such as for groundwater drainage, redirecting stream natural flows, or for conveyance of irrigation water/return flows that coincidentally convey stormwater are considered the receiving water.

**Representative** means a stormwater or wastewater sample which represents the flow and characteristics of the discharge. Representative samples may be a grab sample, a time-proportionate *composite sample*, or a flow proportionate sample. Ecology's Construction Stormwater Monitoring Manual provides guidance on representative sampling.

**Responsible Corporate Officer** for the purpose of signatory authority means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

**Sanitary Sewer** means a sewer which is designed to convey domestic wastewater.

**Sediment** means the fragmented material that originates from the weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

**Sedimentation** means the depositing or formation of sediment.

**Sensitive Area** means a waterbody, wetland, stream, aquifer recharge area, or channel migration zone.

**SEPA** (State Environmental Policy Act) means the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

**Significant Amount** means an amount of a pollutant in a discharge that is amenable to available and reasonable methods of prevention or treatment; or an amount of a pollutant that has a reasonable potential to cause a violation of surface or groundwater quality or sediment management standards.

**Significant Concrete Work** means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project.

**Significant Contributor of Pollutants** means a facility determined by Ecology to be a contributor of a significant amount(s) of a pollutant(s) to waters of the State of Washington.

**Site** means the land or water area where any "facility or activity" is physically located or conducted.

**Source Control BMPs** means physical, structural or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

**Stabilization** means the application of appropriate BMPs to prevent the erosion of soils, such as, temporary and permanent seeding, vegetative covers, mulching and matting, plastic covering and sodding. See also the definition of Erosion and Sediment Control BMPs.

**Storm Drain** means any drain which drains directly into a *storm sewer system*, usually found along roadways or in parking lots.

**Storm Sewer System** means a means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains designed or used for collecting or conveying stormwater. This does not include systems which are part of a *combined sewer* or Publicly Owned Treatment Works (POTW), as defined at 40 CFR 122.2.

**Stormwater** means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface waterbody, or a constructed infiltration facility.

**Stormwater Management Manual (SWMM) or Manual** means the technical Manual published by Ecology for use by local governments that contain descriptions of and design criteria for BMPs to prevent, control, or treat pollutants in stormwater.

**Stormwater Pollution Prevention Plan (SWPPP)** means a documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of stormwater.

**Surface Waters of the State** includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

**Temporary Stabilization** means the exposed ground surface has been covered with appropriate materials to provide temporary stabilization of the surface from water or wind erosion. Materials include, but are not limited to, mulch, riprap, erosion control mats or blankets and temporary cover crops. Seeding alone is not considered stabilization. Temporary stabilization is not a substitute for the more permanent “final stabilization.”

**Total Maximum Daily Load (TMDL)** means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet state water quality standards. Percentages of the total maximum daily load are allocated to the various pollutant sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The TMDL calculations must include a "margin of safety" to ensure that the waterbody can be protected in case there are unforeseen events or unknown sources of the pollutant. The calculation must also account for seasonable variation in water quality.

**Transfer of Coverage (TOC)** means a request for transfer of coverage under this general permit as specified by Special Condition S2.A of this permit.

**Treatment BMPs** means BMPs that are intended to remove pollutants from stormwater. A few examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

**Transparency** means a measurement of water clarity in centimeters (cm), using a 60 cm transparency tube. The transparency tube is used to estimate the relative clarity or transparency of water by noting the depth at which a black and white Secchi disc becomes visible when water is released from a value in the bottom of the tube. A transparency tube is sometimes referred to as a “turbidity tube.”

**Turbidity** means the clarity of water expressed as nephelometric turbidity units (NTUs) and measured with a calibrated turbidimeter.

**Uncontaminated** means free from any contaminant. See definition of “contaminant” and WAC 173-340-200.

**Upset** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

**Waste Load Allocation (WLA)** means the portion of a receiving water’s loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2[h]).

**Water-Only Based Shaft Drilling** is a shaft drilling process that uses water only and no additives are involved in the drilling of shafts for construction of building, road, or bridge foundations.

**Water Quality** means the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

**Waters of the State** includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW, which include lakes, rivers, ponds, streams, inland waters, underground waters, salt

waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

**Well** means a bored, drilled or driven shaft, or dug hole whose depth is greater than the largest surface dimension. (See **Injection Well**.)

**Wheel Wash Wastewater** means any water used in, or resulting from the operation of, a tire bath or wheel wash (BMP C106: Wheel Wash), or other structure or practice that uses water to physically remove mud and debris from vehicles leaving a construction site and prevent track-out onto roads. When stormwater comes in contact with wheel wash wastewater, the resulting water is considered wheel wash wastewater and must be managed according to Special Condition S9.D.9.

## APPENDIX B – ACRONYMS

<b>AKART</b>	All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment
<b>BMP</b>	Best Management Practice
<b>CESCL</b>	Certified Erosion and Sediment Control Lead
<b>CFR</b>	Code of Federal Regulations
<b>CKD</b>	Cement Kiln Dust
<b>cm</b>	Centimeters
<b>CPD</b>	Common Plan of Development
<b>CTB</b>	Cement-Treated Base
<b>CWA</b>	Clean Water Act
<b>DMR</b>	Discharge Monitoring Report
<b>EPA</b>	Environmental Protection Agency
<b>ERTS</b>	Environmental Report Tracking System
<b>ESC</b>	Erosion and Sediment Control
<b>FR</b>	Federal Register
<b>LID</b>	Low Impact Development
<b>NOI</b>	Notice of Intent
<b>NOT</b>	Notice of Termination
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>NTU</b>	Nephelometric Turbidity Unit
<b>RCW</b>	Revised Code of Washington
<b>SEPA</b>	State Environmental Policy Act
<b>SWMM</b>	Stormwater Management Manual
<b>SWPPP</b>	Stormwater Pollution Prevention Plan
<b>TMDL</b>	Total Maximum Daily Load
<b>UIC</b>	Underground Injection Control
<b>USC</b>	United States Code
<b>USEPA</b>	United States Environmental Protection Agency
<b>WAC</b>	Washington Administrative Code
<b>WQ</b>	Water Quality
<b>WWHM</b>	Western Washington Hydrology Model

# Goose Prairie Solar Project

June 2021 project update

[Place holder]



# Public Services

128 North Second Street • Fourth Floor Courthouse • Yakima, Washington 98901  
(509) 574-2300 • 1-800-572-7354 • FAX (509) 574-2301 • [www.co.yakima.wa.us](http://www.co.yakima.wa.us)

LISA H. FREUND – Director

March 11, 2021

OneEnergy Renewables  
Attn: Blake Bjornson  
2003 Western Ave, Suite 225  
Seattle, WA 98121

RE: Certificate of Zoning Compliance – Goose Prairie Solar (OER WA Solar 1 LLC)

Mr. Bjornson,

OneEnergy Renewables is proposing to construct an 80 MW solar facility in Yakima County. The solar facility is defined as a Power Generating Facility under Yakima County Code (YCC) Title 19, the Unified Land Development Code. The facility is proposed to be within the Agriculture Zoning District (AG). In the AG Zoning District, power generating facilities are a Type 3 Use, pursuant to Table 19.14-1 Allowable Land Uses.

**Table 19.14-1 Allowable Land Uses**

	AG	FW	MIN	R/ELDP	R-10/5	RT	RS	HTC	SR	R-1	R-2	R-3	B-1	B-2	SCC	LCC	GC	M-1	M-2
Power generating facilities	3	3	3	3	3			3									3	3	1

Type 3 Uses are “uses which may be authorized subject to the approval of a conditional use permit as set forth in Section 19.30.030. Type 3 conditional uses are not generally appropriate throughout the zoning district. Type 3 uses require Hearing Examiner review of applications subject to a Type 3 review under the procedures of Section 19.30.100 and YCC Subsection 16B.03.030(1)(c).” (YCC Title 19.19-010(2))

Therefore, the Goose Prairie Solar project is consistent with Title 19 and would be eligible for review and permitting under Yakima County permit processes.

Please contact Byron Gumz of my staff at (509)574-2300 with any questions.

Sincerely,

Thomas Carroll  
Yakima County Planning Official

# Horse Heaven Wind Project

June 2021 project update

[Place holder]