



WASHINGTON STATE
Joint Aquatic Resources Permit
Application (JARPA) Form^{1,2}

USE BLACK OR BLUE INK TO ENTER ANSWERS IN THE WHITE SPACES BELOW.

RECEIVED



US Army Corps
of Engineers
Seattle District

AGENCY USE ONLY

Date received:

Agency reference #: _____

Tax Parcel #(s): _____

JUN - 2 2016

Part 1—Project Identification

PEND OREILLE CO.
COMMUNITY DEVELOPMENT

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [\[help\]](#)

Dilling Bank Stabilization & Dock Replacement

Part 2—Applicant

The person and/or organization responsible for the project. [\[help\]](#)

2a. Name (Last, First, Middle)

Marsha Dilling

2b. Organization (If applicable)

2c. Mailing Address (Street or PO Box)

1901 Riverbend Loop Rd.

2d. City, State, Zip

Cusick, Wa. 99119

2e. Phone (1)

509 710-4018

2f. Phone (2)

2g. Fax

()

2h. E-mail

¹Additional forms may be required for the following permits:

- If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 764-3495.
- If your project might affect species listed under the Endangered Species Act, you will need to fill out a Specific Project Information Form (SPIF) or prepare a Biological Evaluation. Forms can be found at http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_ESA
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they accept the JARPA.

²To access an online JARPA form with [\[help\]](#) screens, go to

http://www.epermitting.wa.gov/site/alias_resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx.

Part 3—Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b of this application.) [\[help\]](#)

3a. Name (Last, First, Middle)			
Hood, David, P.			
3b. Organization (If applicable)			
Hood Design Solutions LLC			
3c. Mailing Address (Street or PO Box)			
351 Driskill Road			
3d. City, State, Zip			
Newport, Wa. 99156			
3e. Phone (1)	3f. Phone (2)	3g. Fax	3h. E-mail
	(509) 991-3391	()	

Part 4—Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both upland and aquatic ownership because the upland owners may not own the adjacent aquatic land. [\[help\]](#)

- Same as applicant. (Skip to Part 5.)
- Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)
- There are multiple upland property owners. Complete the section below and fill out [JARPA Attachment A](#) for each additional property owner.
- Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete [JARPA Attachment E](#) to apply for the Aquatic Use Authorization.

4a. Name (Last, First, Middle)			
4b. Organization (If applicable)			
4c. Mailing Address (Street or PO Box)			
4d. City, State, Zip			
4e. Phone (1)	4f. Phone (2)	4g. Fax	4h. E-mail
()	()	()	

Part 5—Project Location(s)

Identifying information about the property or properties where the project will occur. [\[help\]](#)

- There are multiple project locations (e.g. linear projects). Complete the section below and use [JARPA Attachment B](#) for each additional project location.

5a. Indicate the type of ownership of the property. (Check all that apply.) [\[help\]](#)

- Private
 Federal
 Publicly owned (state, county, city, special districts like schools, ports, etc.)
 Tribal
 Department of Natural Resources (DNR) – managed aquatic lands (Complete [JARPA Attachment E](#))

5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [\[help\]](#)

1901 Riverbend Loop Rd.

5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [\[help\]](#)

Cusick, WA 99119

5d. County [\[help\]](#)

Pend Oreille

5e. Provide the section, township, and range for the project location. [\[help\]](#)

¼ Section	Section	Township	Range
SE	6	34	44

5f. Provide the latitude and longitude of the project location. [\[help\]](#)

- Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)

48.281853 lat -117.171021 long (GOOGLE)

5g. List the tax parcel number(s) for the project location. [\[help\]](#)

- The local county assessor's office can provide this information.

443406 50 0005

5h. Contact information for all adjoining property owners. (If you need more space, use [JARPA Attachment C.](#)) [\[help\]](#)

Name	Mailing Address	Tax Parcel # (if known)
PETER D BAUERNFEIND	6520 W SUNDANCE DR SPOKANE, WA 99208-9090	443406540002
VIRGINIA M DILLING	81 DILLING DR CUSICK, WA 99119-9514	443405500007

5i. List all wetlands on or adjacent to the project location. [\[help\]](#)

None, shorelines only

5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [\[help\]](#)

Pend Oreille River

5k. Is any part of the project area within a 100-year floodplain? [\[help\]](#)

Yes No Don't know Shorelines only

5l. Briefly describe the vegetation and habitat conditions on the property. [\[help\]](#)

The Dilling site has a severely eroded bank failure and in danger of lose to 5-6 cottonwood trees in front yard. The residence and front patio are becoming threatened, along with the river access stairs becoming unsafe. Stabilization is needed to repair the large scour for home and the stairs.

Habitat is minor with the location being in Riverbend Subdivision impact area and has small birds, small amount of wildlife, and normal waterfowl associated with the shorelines of the Pend Oreille River.

5m. Describe how the property is currently used. [\[help\]](#)

Current use is Residential and Recreational within the subdivision impact area.

5n. Describe how the adjacent properties are currently used. [\[help\]](#)

Adjoining properties are also used as Residential & Recreational within the subdivision impact area. Most have recreational amenities enjoyed by family and friends. With residencies on both sides of the property.

5o. Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [\[help\]](#)

Existing storage shed

5p. Provide driving directions from the closest highway to the project location, and attach a map. [\[help\]](#)

LeClerc Road north to Riverbend Loop Road, westerly (left) on Riverbend Loop Road, northerly end of subdivision, proceed to 1901 Riverbend Loop Rd.

Part 6—Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [\[help\]](#)

The Dilling site has a severely eroded bank failure and in danger of lose to 5-6 cottonwood trees in front yard. The residence and front patio are becoming threatened, along with the river access stairs becoming unsafe. Stabilization is needed to repair the large scour for home and the stairs are failing from there attachment. This design implements toe armoring with bank slope reduction to a 1.5:1 ± ratio. This project consists of approximately 70 l.f.± by approximately 6'-8' height of riverbank failure erosion scour to repair. The stone material shall come from the Dawson Pit and shall be approximately 0.45 yds. per lineal foot. Rock toe, and bank will be planted with native riparian vegetation, erosion control grasses and coyote willow, etc. Large wood (rootwads) along with the planting plan will incorporate added fish enhancement and shall help mitigate for no loss of shoreline functions. Extra dense plantings are needed to establish deep growth. Willow whips in stone and dense plantings in the 2'-3' top of bank planting strip to accomplish the robust planting plan, as per site visit with Pend Oreille County, and agencies on 10/20/2015. The existing 8x24 deteriorated dock will be replaced with an S&K dock of same size, and adding 2-6" pilings will be a part of this project. The replacement will be within the RGP-7 for sq. ft. and less than 55' waterward.

6b. Describe the purpose of the project and why you want or need to perform it. [\[help\]](#)

The cause of erosion at this location is possibly as follows: 1. during high water events the banks that consist of gravel and gravelly sand with 6" of top soil in this area that becomes saturated. The water is causing cracks and undercutting with vertical bank failure of the bank. Then upon lowering of the water level in early summer the banks are not able to withstand the weight of the saturated soils left from the high water. 2. The bank is undercutting with the probable/possible loss of mature trees and home. 3. High water levels combined with wind and wave action from the river will continue to lead to further erosion, 4. Watercraft in this dense subdivision setting, has caused wake/wave action at high water in the past and has contributed a great deal to the current erosion concerns at the Dilling residence as well as the entire Pend Oreille River.

The intent of this proposal is a riverbank stabilization project, based on Best Management Practices in conjunction with the Box Canyon Riverbank Stabilization Guidelines. The project will be designed for stabilizing the bank and current vegetation use while adding more vegetation after the fill. Upon completion of the designs, the landowner will hire Dan Dawson to implement the project. Dan is an accomplished professional of riverbank stabilization projects that implement the types of projects listed in the Guidelines as well as other specific excavation work along waterbodies.

6c. Indicate the project category. (Check all that apply) [\[help\]](#)

- | | | | | |
|--------------------------------------|----------------------------------------------------|----------------------------------------|-----------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Institutional | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Recreational |
| <input type="checkbox"/> Maintenance | <input type="checkbox"/> Environmental Enhancement | | | |

6d. Indicate the major elements of your project. (Check all that apply) [help]

- | | | | |
|--------------------------------------------------------|-------------------------------------------------|----------------------------------------------------|--------------------------------------------------------|
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Culvert | <input type="checkbox"/> Float | <input type="checkbox"/> Retaining Wall (upland) |
| <input checked="" type="checkbox"/> Bank Stabilization | <input type="checkbox"/> Dam / Weir | <input type="checkbox"/> Floating Home | <input type="checkbox"/> Road |
| <input type="checkbox"/> Boat House | <input type="checkbox"/> Dike / Levee / Jetty | <input type="checkbox"/> Geotechnical Survey | <input type="checkbox"/> Scientific Measurement Device |
| <input type="checkbox"/> Boat Launch | <input type="checkbox"/> Ditch | <input type="checkbox"/> Land Clearing | <input type="checkbox"/> Stairs |
| <input type="checkbox"/> Boat Lift | <input checked="" type="checkbox"/> Dock / Pier | <input type="checkbox"/> Marina / Moorage | <input type="checkbox"/> Stormwater facility |
| <input type="checkbox"/> Bridge | <input type="checkbox"/> Dredging | <input type="checkbox"/> Mining | <input type="checkbox"/> Swimming Pool |
| <input type="checkbox"/> Bulkhead | <input type="checkbox"/> Fence | <input type="checkbox"/> Outfall Structure | <input type="checkbox"/> Utility Line |
| <input type="checkbox"/> Buoy | <input type="checkbox"/> Ferry Terminal | <input checked="" type="checkbox"/> Piling/Dolphin | |
| <input type="checkbox"/> Channel Modification | <input type="checkbox"/> Fishway | <input type="checkbox"/> Raft | |

Other:

6e. Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. [help]

- Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year floodplain.

Equipment to be used includes 220 Komatsu Excavator (if needed) on top of the bank passing rock below to the mini excavator (304 Cat) and track skid steer Uniloader working off the top of bank and toe. Plantings placed in material as much as possible, as it is being built up on bank armoring, see attached planting plan.

6f. What are the anticipated start and end dates for project construction? (Month/Year) [help]

- If the project will be constructed in phases or stages, use [JARPA Attachment D](#) to list the start and end dates of each phase or stage.

Start date: fall/2016

End date: fall/2019

See JARPA Attachment D

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [help]

Approx. \$6,000 Bank Work, \$5,800 Dock

6h. Will any portion of the project receive federal funding? [help]

- If yes, list each agency providing funds.

Yes No Don't know

Part 7—Wetlands: Impacts and Mitigation

Check here if there are wetlands or wetland buffers on or adjacent to the project area.
(If there are none, skip to Part 8.) [\[help\]](#)

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [\[help\]](#)

Not applicable

7b. Will the project impact wetlands? [\[help\]](#)

Yes No Don't know

7c. Will the project impact wetland buffers? [\[help\]](#)

Yes No Don't know

7d. Has a wetland delineation report been prepared? [\[help\]](#)

- If Yes, submit the report, including data sheets, with the JARPA package.

Yes No

7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [\[help\]](#)

- If Yes, submit the wetland rating forms and figures with the JARPA package.

Yes No Don't know

7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [\[help\]](#)

- If Yes, submit the plan with the JARPA package and answer 7g.
- If No, or Not applicable, explain below why a mitigation plan should not be required.

Yes No Not applicable

7g. Summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [\[help\]](#)

7h. Use the table below to list the type and rating of each wetland impacted, the extent and duration of the impact, and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [\[help\]](#)

Activity (fill, drain, excavate, flood, etc.)	Wetland Name ¹	Wetland type and rating category ²	Impact area (sq. ft. or Acres)	Duration of impact ³	Proposed mitigation type ⁴	Wetland mitigation area (sq. ft. or acres)

¹ If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report.

² Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.

³ Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.

⁴ Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)

Page number(s) for similar information in the mitigation plan, if available: _____

7i. For all filling activities identified in 7h, describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [\[help\]](#)

7j. For all excavating activities identified in 7h, describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [\[help\]](#)

Part 8–Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, “waterbodies” refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [\[help\]](#)

Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment.

[\[help\]](#)

Not applicable

Work to be done in low water times and including silt fencing, equipment diapers if needed, cloth fabric installed to help minimize silting, and replanting of vegetation elements.

8b. Will your project impact a waterbody or the area around a waterbody? [\[help\]](#)

Yes No

8c. Have you prepared a mitigation plan to compensate for the project’s adverse impacts to non-wetland waterbodies? [\[help\]](#)

- If Yes, submit the plan with the JARPA package and answer 8d.
- If No, or Not applicable, explain below why a mitigation plan should not be required.

Yes No Not applicable

River Bank Stabilizing and dock replacement work only

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.

- If you already completed 7g you do not need to restate your answer here. [\[help\]](#)

The natural vegetation provides shade, habitat, wave buffers, and add roughness to the shoreline.

8e. Summarize impact(s) to each waterbody in the table below. [\[help\]](#)

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name ¹	Impact location ²	Duration of impact ³	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Fill	Pend Oreille River	In	Permanent	0.45 yds. per foot	70 L.F.
Pile	Pend Oreille River	In	Permanent	2-6" pilings	4 sq.ft. ±

¹ If no official name for the waterbody exists, create a unique name (such as "Stream 1") The name should be consistent with other documents provided.

² Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain.

³ Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter "permanent" if applicable.

8f. For all activities identified in 8e, describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [\[help\]](#)

Bank armoring with gravel filter layer and riprap stones ranging 8"-12"± shall be installed along the OHWL. Base toe trench shall be cut and armored near low water line. Approximate 35 yds. ± of clean angular riprap rock from Dawson's Pit shall be placed.

8g. For all excavating or dredging activities identified in 8e, describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [\[help\]](#)

No dredging or removal off site of materials.

Part 9—Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [help]			
Agency Name	Contact Name	Phone	Most Recent Date of Contact
Pend Oreille County	Andy Huddelston	(509) 447-4821	10/20/15
WDFW	Jeff Lawlor	(509)892-1001 ext.321	10/20/15
USACE	Jess Jordan	(206) 316-3967	10/20/15
9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA on the Washington Department of Ecology's 303(d) List? [help] <ul style="list-style-type: none"> • If Yes, list the parameter(s) below. • If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: http://www.ecy.wa.gov/programs/wq/303d/. 			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [help] <ul style="list-style-type: none"> • Go to http://cfpub.epa.gov/surf/locate/index.cfm to help identify the HUC. 			
#17010216			
9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [help] <ul style="list-style-type: none"> • Go to http://www.ecy.wa.gov/services/gis/maps/wria/wria.htm to find the WRIA #. 			
#62			
9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity? [help] <ul style="list-style-type: none"> • Go to http://www.ecy.wa.gov/programs/wq/swqs/criteria.html for the standards. 			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable			
9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? [help] <ul style="list-style-type: none"> • If you don't know, contact the local planning department. • For more information, go to: http://www.ecy.wa.gov/programs/sea/sma/laws_rules/173-26/211_designations.html. 			
<input checked="" type="checkbox"/> Rural <input type="checkbox"/> Urban <input type="checkbox"/> Natural <input type="checkbox"/> Aquatic <input type="checkbox"/> Conservancy <input type="checkbox"/> Other _____			
9g. What is the Washington Department of Natural Resources Water Type? [help] <ul style="list-style-type: none"> • Go to http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp_watertyping.aspx for the Forest Practices Water Typing System. 			

Shoreline

Fish

Non-Fish Perennial

Non-Fish Seasonal

9h. Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? [\[help\]](#)

- If No, provide the name of the manual your project is designed to meet.

Yes No

Name of manual: Best Management Practices

9i. Does the project site have known contaminated sediment? [\[help\]](#)

- If Yes, please describe below.

Yes No

9j. If you know what the property was used for in the past, describe below. [\[help\]](#)

Residential use and recreational use only.

9k. Has a cultural resource (archaeological) survey been performed on the project area? [\[help\]](#)

- If Yes, attach it to your JARPA package.

Yes No

9l. Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [\[help\]](#)

Possibly Bull Trout

9m. Name each species or habitat on the Washington Department of Fish and Wildlife's Priority Habitats and Species List that might be affected by the proposed work. [\[help\]](#)

Trout, Bass, Pike, Perch, Bird varieties, Small Mammals, Small Reptiles.

Part 10—SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Online Project Questionnaire at <http://apps.ecy.wa.gov/opas/>.
- Governor's Office of Regulatory Assistance at (800) 917-0043 or help@ora.wa.gov.
- For a list of addresses to send your JARPA to, click on [agency addresses for completed JARPA](#).

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [\[help\]](#)

- For more information about SEPA, go to www.ecy.wa.gov/programs/sea/sepa/e-review.html.

A copy of the SEPA determination or letter of exemption is included with this application.

A SEPA determination is pending with Pend Oreille County (lead agency). The expected decision date is June 2016.

I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [\[help\]](#)

This project is exempt (choose type of exemption below).

Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt?

Other: Pend Oreille County Shoreline Authorization Permit

SEPA is pre-empted by federal law.

10b. Indicate the permits you are applying for. (Check all that apply.) [\[help\]](#)

LOCAL GOVERNMENT

Local Government Shoreline permits:

Substantial Development Conditional Use Variance

Shoreline Exemption Type (explain): _____

Other city/county permits:

Floodplain Development Permit Critical Areas Ordinance

STATE GOVERNMENT

Part 11—Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [\[help\]](#)

11a. Applicant Signature (required) [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. M.D. (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. M.D. (initial)

MARSHA DILLING
Applicant Printed Name

Marsha Dilling
Applicant Signature

May 23, 2016
Date

11b. Authorized Agent Signature [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

David P. Hood
Authorized Agent Printed Name

David P. Hood
Authorized Agent Signature

5/18/16
Date

11c. Property Owner Signature (if not applicant). [\[help\]](#)

Not required if project is on existing rights-of-way or easements.

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

MARSHA DILLING
Property Owner Printed Name

Marsha Dilling
Property Owner Signature

May 23, 2016
Date

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact the Governor's Office of Regulatory Assistance (ORA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORA publication number: ENV-019-09 rev. 06-12