Los Angeles District

Standard Operating Procedure for

Evaluation of Proposed

Compensatory Mitigation Sites

August 2016

(12512.2-SPL – An attachment to 12512-SPL – Current to August 2016)

(See 12512-SPL for Revisions Sheet)



US Army Corps of Engineers
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Summary

- General details
- List of documents
- Procedure: flow chart
- Checklist
- Instructions
- Examples
- FAQ's
- (Updates: list of changes none yet)
- POC's



SOP for Evaluation of Proposed Compensatory Mitigation Sites



125XX-SPD REGULATORY PROGRAM STANDARD OPERATING PROCEDURE FOR EVALUATION OF PROPOSED COMPENSATORY MITIGATION SITES



South Pacific Division

REVISIONS SHEET

NO.	DATE	DESCRIPTION	NOTES
0	MM.DD.2014	Initial Version	

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- 10.0 Flow Chart
- 1.0 Purpose. The purpose of this document is to outline the process for evaluating compensatory mitigation sites as required for processing of Department of the Army (DA) permits, mitigation bank prospectuses, and in lieu fee (ILF) mitigation plans under Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research, and Sanctuaries Act.
- 2.0 Applicability. This process applies to the Regulatory Program within South Pacific Division (SPD), including its four subordinate districts, Albuquerque District (SPA), Sacramento District (SPK), Los Angeles District (SPL), and San Francisco District (SPN). Subordinate offices or organizations shall not modify this procedure to form a specific procedure. This

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procedure is applicable for all "new" (i.e., not requests to re-verify or modify previously-issued permits) permit applications, preconstruction notifications (PCNs), mitigation bank prospectuses, and in lieu fee (ILF) mitigation plans received after DD Month 2014. For NWPs re-verification requests where the compensatory mitigation site evaluation checklist ("checklist") was not completed previously, use of the checklist is required in order to ensure adequacy of compensatory mitigation proposals, to ensure compliance with the 2008 Mitigation Rule (33 CFR Part 332), and to comply with this new QMS procedure designed to ensure compensatory mitigation is sufficient to offset authorized impacts. For individual permits (SIP and LOP) and bank prospectuses, if the original application or prospectus predates this QMS procedure (effective DD Month 2014), the checklist would not be required for subsequent modification requests (time extension or activity modifications), unless the requested modification includes a proposal for an alternative compensatory mitigation site(s). Similarly, for ILF mitigation plans, if the original plan submittal predates this QMS procedure, the checklist would not be required. In addition, in cases where compensatory mitigation has already been constructed or where the applicant can otherwise fully demonstrate substantial resources have been expended or committed in reliance on previous guidance governing compensatory mitigation for DA permits, the checklist would not be required.

3.0 References.

Compensatory Mitigation for Losses of Aquatic Resources (33 C.F.R. Part 332).

4.0 Related Procedures.

SPD QMS No. 12501. SOP for Determination of Mitigation Ratios

SPD QMS No. 12505 Uniform Performance Standards for Compensatory Mitigation Requirements

5.0 Definitions.

Buffer - An upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine and estuarine systems from disturbances associated with adjacent land uses.

Compensatory mitigation - The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Condition - The relative ability of an aquatic resource to support and maintain a community of organisms having a species composition, diversity, and functional organization comparable to reference aquatic resources in the region.

Enhancement - The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s).

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SOP for Evaluation of Proposed Compensatory Mitigation Sites

- Completed February 06, 2015, by regional PDT (2 year effort)
- Implemented in 2016 by SPL as a 2 year pilot project
- Benefits:
 - Assists project managers in implementing a watershed approach when evaluating mitigation proposals.
 - Selection of more ecologically successful compensatory mitigation sites.
 - Provides structured decision-making procedure while retaining flexibility.
 - Results in a written rationale (decision document) for determinations regarding the appropriateness of the proposed compensatory mitigation activities for the site(s) in question.
 - Includes guidance for each step of checklist.

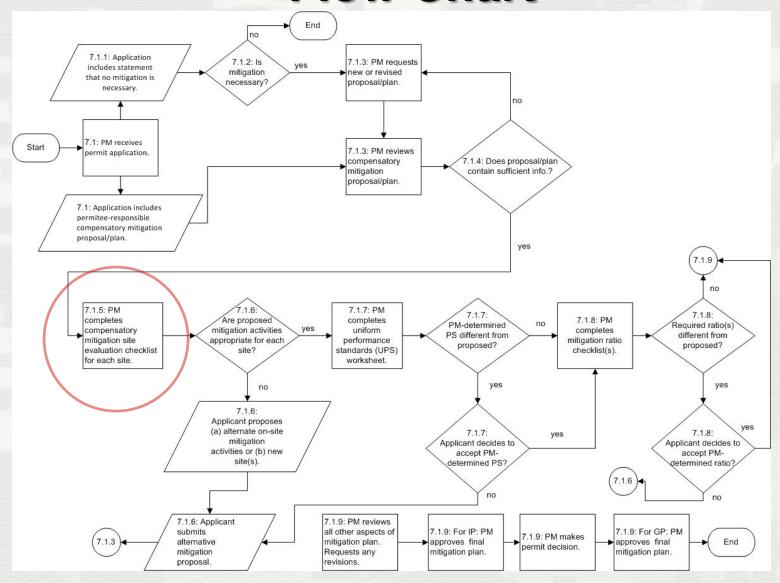


Procedure Components

- Procedure consists of:
 - > 1 Flowchart
 - > 3 Attachments
 - √ 1. Compensatory mitigation site evaluation checklist
 - ✓ 2. Training presentation
 - √ 3. Examples



Flow Chart





Attachment 1 (steps 1-2) Compensatory mitigation site evaluation checklist

draft - 20141020

Attachment 125XX-1 - Compensatory mitigation site evaluation checklist.

Can be a proposed PRM, bank, or ILF mitigation site.

1	Date: Corps file no.:	Project name:	Project Manager:	
		Column A:	Column B:	Column C:
2.a	Mitigation site name:			
	Location figure(s):			
2.b	Mitigation objective(s) to improve:		Use a congrate of	column for each mitigation
2.c	Proposed Mitigation method:			
	If enhancement, list function(s) to be increased:	Cite and attach figures	site/method (i.e.,	each geographically
	Function 1:	for each mitigation site.	separate site nee	eds to be evaluated in its
	Function 2 (if applicable):	S		milarly, two adjacent sites
	Function 3 (if applicable):			
2.d	Primary type(s) of site treatment:		with different mit	gation methods should be
2.e	Aquatic resource type (Cowardin system):		evaluated in sep	arate columns.
2.f	Hydrology:			
2.g	FCAM classification used:			
	FCAM Subclass(es):			
2.h	Vegetation classification system used:	Objectives:		
	Vegetation class(es)/subclass(s):		e de la companya del companya de la companya del companya de la co	(6)
2.i	Vernacular/common name of proposed type of	habitat conservation/biod		
	aquatic resource, if appropriate:	attenuation; water quality	y; target population of s	pecial status
		biota; specific aquatic res		· · · · · · · · · · · · · · · · · · ·
		biota, specific aquatic res		
2 0	- proposed equatio			

2.e = **proposed** aquatic resource type

2.f: see SPD compensatory mitigation and monitoring guidelines for hydrology types

Site treatment types:

Introduction of plant materials; invasive species control; hydrological manipulation; topographic/substrate manipulation



Attachment 1 (step 3) Compensatory mitigation site evaluation checklist

+				
3	Watershed Planning and Prioritization			
	a. Are mitigation proposal objectives aligned with the objective(s) of one or more appropriate watershed plans? When is a watershed plan appropriate? See next slide.	Enter: yes / no/ N/A Relevant watershed plan objective(s):	Enter: yes / no N/A *t watershed plan objective(s):	Enter: yes / no N/A Relevant watershed plan objective(s):
		Cite watershed plan(s), including title, preparer, and date:	Check "N/A" if an appropriate watershed plan is not available. d plan(s), includin date:	
		Cite applicable parts of plan(s) (by page number):	Cite applicable parts of plan(s) (by page number):	Cite applicable parts of plan(s) (by page number):
			Evam	pple watershed plans:

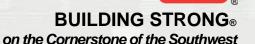
If multiple watershed plans:

- -do all meet "appropriate" criteria?
- -do any conflicts pertain to checklist steps?
- -use best professional judgment when determining what information and/or recommendations are applicable and explain

rationale (cite in checklist and attach).

Example watershed plans SAMP ADID

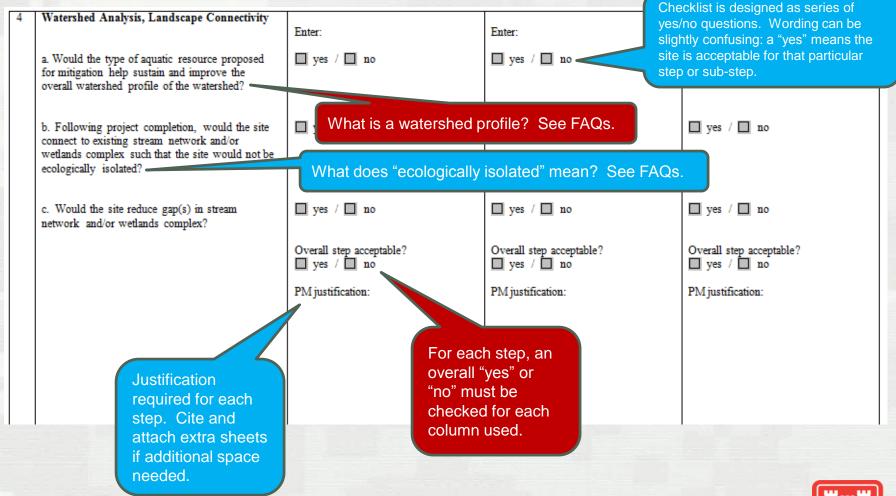
State Section 319 funded/generated Watershed and Wetland Action Plans USFS Watershed Condition Assessment Framework and Watershed Action Plans



Watershed Plans

- From Mitigation Rule 33 CFR 332.2, "watershed plan: means:
 - A plan developed by federal, tribal, state, and/ or local government agencies or appropriate non-governmental organizations, in consultation with relevant stakeholders, for the specific goal of aquatic resource restoration, establishment, enhancement, and preservation.
 - A watershed plan addresses aquatic resource conditions in the watershed, multiple stakeholder interests, and land uses.
 - Watershed plans may also identify priority sites for aquatic resource restoration and protection.
 - > Examples of watershed plans include special area management plans, advance identification programs, and wetland management plans.
- A watershed plan may be "appropriate" if it:
 - Meets criteria from Mitigation Rule definition (above).
 - Addresses watershed profile (see FAQs).
 - Addresses existing and desired ecological functions and services of aquatic resources throughout watershed.
 - > Establishes priorities and/or recommendations for aquatic resource restoration (in a general sense of the term) in terms of location, habitat types, etc.
 - > Is relatively recent (finalized within last 5-10 years).
 - > The more of the above criteria that apply, the better the case for an "appropriate" watershed plan.

Attachment 1 (step 4) Compensatory mitigation site evaluation checklist



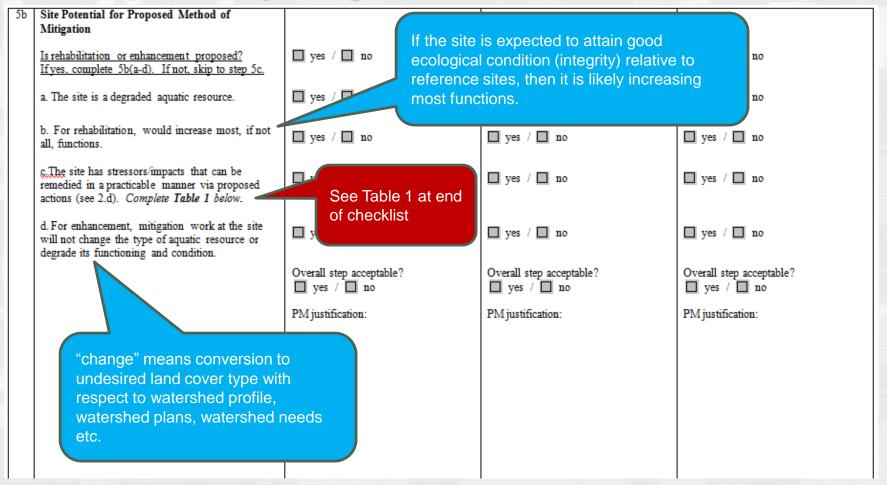


Attachment 1 (step 5a) Compensatory mitigation site evaluation checklist

5a Site Potential for Proposed Method of			
Mitigation			
	5a, 5b, and	5c depend	
Is establishment or re-establishment proposed?	on the mitiga		yes / no
If yes, complete 5a(a-d). If not, skip to step 5b.			
	method prop	the state of the s	
 The site is not an aquatic resource. 	□ yes / □ no each column	n (i.e., only	yes / no
	use one step		
b. The site is not high quality terrestrial habitat			
(e.g., natural land cover with few observed	□ yes / □ no or 5c, per co	olumn).	yes / no
stressors)			
32 020737			
c. The site is in close proximity to an aquatic			
resource in good functional condition.	yes / no	yes / no	yes / no
For proximal site, consider FCAM scores.			
d. For re-establishment, is there evidence the type	yes / no	yes / no	□ yes / □ no
of proposed aquatic resource was present	L yes / L Lo	la yes / la lio	L yes / L III
historically on site?			
	Overall step acceptable?	Overall step acceptable?	Overall step acceptable?
	yes / no	yes / no	yes / no
	_ ;	_ ,	
	PM justification:	PM justification:	PM justification:

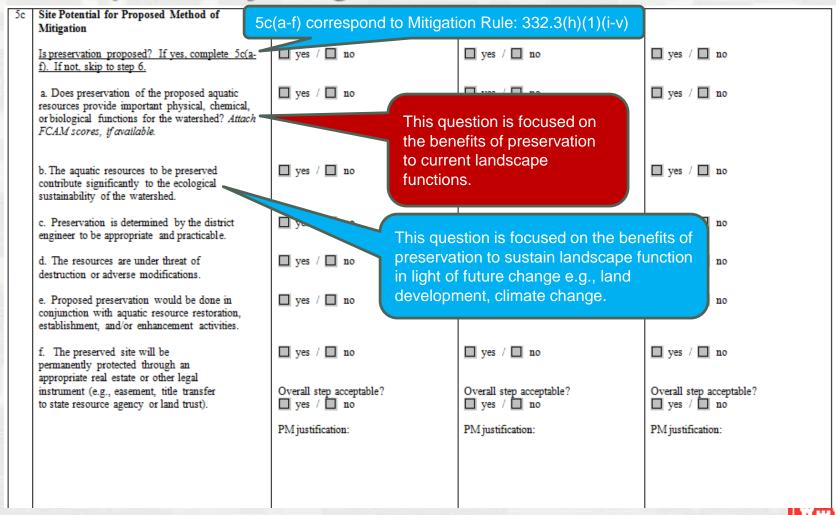


Attachment 1 (step 5b) Compensatory mitigation site evaluation checklist

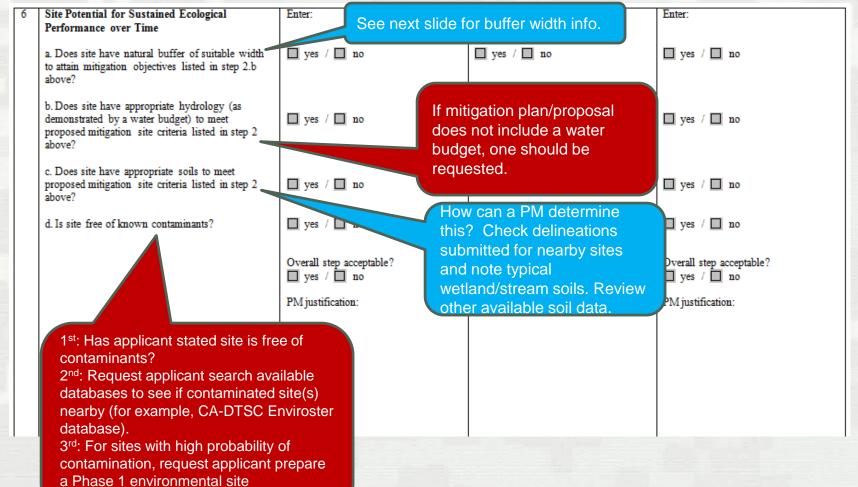




Attachment 1 (step 5c) Compensatory mitigation site evaluation checklist



Attachment 1 (step 6) Compensatory mitigation site evaluation checklist





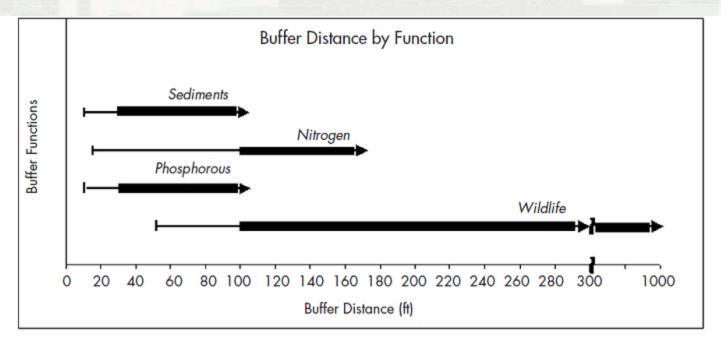
assessment.

Buffer Width

Excerpt from:

Nichols, Sandra S.; McElfish, James M. Jr; and Kihslinger, Rebecca L., "Planner's guide to wetland buffers for local governments" (2008). Environmental Sustainability Publications. Paper 857.

http://scholarcommons.usf.edu/tles_publications/857



Effective buffer distance for water quality and wildlife protection functions. The thin arrow represents the range of potentially effective buffer distances for each function as suggested in the science literature. The thick bar represents the buffer distances that may most effectively accomplish each function (30 - > 100 feet for sediment and phosphorous removal; 100 - > 160 feet for nitrogen removal; and 100 - > 300 feet for wildife protection. Depending on the species and the habitat characteristics, effective buffer distances for wildlife protection may be either small or large.



Attachment 1 (step 7) Compensatory mitigation site evaluation checklist

7	Risk and Uncertainty	Enter:	Enter:	Enter:
	Would all existing and anticipated stressors from Table 1 be resolved and therefore unlikely to jeopardize the mitigation proposal?	☐ yes / ☐ no List unresolved existing and/or anticipated stressor(s) and describe magnitude of effect:	☐ yes / ☐ no List unresolved existing and/or anticipated stressor(s) and describe magnitude of effect:	☐ yes / ☐ no List unresolved existing and/or anticipated stressor(s) and describe magnitude of effect:
		Check "N/A" if w for proposed site rights are not an		
	b. Does proposed site include necessary water rights, as necessary, to ensure hydrology?	yes / no / N/A	yes / no / N/A	ges / no / N/A
	c. Would the proposed mitigation be free of structures which would require on-going maintenance and incompatible uses (for example, on-going requirement to maintain channel capacity)?	yes / no	□ yes / □ no	□ yes / □ no
	d. Do local planning documents/policies envision the surrounding natural landscape as open space such that landscape-scale connectivity would be	□ yes / □ no	□ yes / □ no	□ yes / □ no
	maintained or improved (in other words, no zoning changes or planned development are anticipated which would pose a barrier to natural drainage and the movement of wildlife)?	Overall step acceptable? yes / in no PM justification:	Overall step acceptable? yes / in no PM justification:	Overall step acceptable? yes / no PM justification:
	The second of th			
	Applicant may have acco			
	information as part of the			
	approval process. Othe			
	local specific/general pla	ins.		

Attachment 1 (step 8-9) Compensatory mitigation site evaluation checklist

8 Final Evaluation

a. List number of final overall "yes" and "no" answers above (acceptable or not). Total answers should be five (5) unless a watershed plan is not available (in that case 4). Most steps must be acceptable for a mitigation proposal to be found environmentally acceptable; however, in some cases, a single "no" may render a proposal unacceptable.

Caveat: A heavily urbanized watershed may have limited compensatory mitigation opportunities such that a given proposal may be appropriate despite more steps having been found unacceptable. This would be especially true for projects with impacts to disturbed/low functioning aquatic resources and limited compensatory mitigation objectives.

Number of steps that would be acceptable ("yes" answers at bottom of each step):

Number of steps that would **not** be acceptable ("'no" answers at bottom of each step):

In summary, are activities in column A appropriate for this site?:

PM Justification:

Number of steps that would be acceptable ("yes" answers at bottom of each step):

Number of steps that would **not** be acceptable ("no" answers at bottom of each step): ____

In summary, are activities in column B appropriate for this site?:

yes / no

PM Justification:

Number of steps that would be acceptable ("yes" answers at bottom of each step):

Number of steps that would **not** be acceptable ("no" answers at bottom of each step):

In summary, are activities in column C appropriate for this site?:

yes / no

PM Justification:

Explain conclusion for each separate mitigation site/type proposal (i.e., for each column): is it acceptable or not and why? Cite and attach additional pages if needed.

Overall conclusions:

Explain conclusion for overall mitigation proposal: is it acceptable, are parts of it acceptable and others not, or is the entire proposal unacceptable and for each case, why?

Note: PMs may deviate from the guidance provided herein if such deviations can be documented in the checklist with sufficient justification.

Attachment 1 (Table 1: Stressor List for step 5b) Compensatory mitigation site evaluation checklist

Table 1. Stressor List for step 5b above. Review proposed m that can be reduced or eliminated via proposed mitigation actions in step Note: project design features are intended to reduce or eliminate existin features that reduce or eliminate site disturbance (stressors) will improve resource type at reference sites.	2.d. Describe th	ne magnitude of each ite disturbance (stress	observed stressor and explain whether it can be reduced or elimin ors), and improve aquatic resource functions. Also note: Projec	nated. et design
Example water quality stressors:	1.Observed	2. To be reduced/ eliminated	3.PM explanation (if appropriate)	
Point source discharges features (outfall, discharge pipes)				
Obvious unnatural concentrations of salts (salt encrustation)				
Unnatural odors, foam, oil sheen				
Formation of heavy algal mats				
Turbidity in water column				
Other:			In Table 1 column 3, la	abel individual
Example hydrologic regime stressors:			stressors by checklist	column (A,B,C). If
Agricultural tiles, siphons or pumps			stressors extensive, m	nay need to prepare
Ditches, dikes, levees or berms			separate table for eac	
Other water control structures			soparate table for sac	Tr orrootalot oolariiri.
Other:				
Example physical structure stressors:				
Evidence livestock or feral animals trampling and substrate compaction				
Past dredging and fill activity				
Off road vehicle use				
Plowing and disking				
Dumping of trash				
Other:				
Example vegetation stressors:				
Invasive species				
Mechanical plant removal or mowing				
Intensive grazing by livestock or feral animals				
Chemical vegetation control				
Intentional burning				
Other:				WwW



Attachment 3

Examples

125XX.3-SPL Compensatory mitigation site evaluation checklist examples.

Example 1: Lazy Day Ranch

> Example 2: Del Norte



Frequently Asked Questions (FAQ)

- Q1: Do I have to complete this checklist for all my Regulatory projects?
 - A: Completing the checklist is an SPL requirement for any new project requiring compensatory mitigation (see SOP pages 1-2: Applicability).
- Q2: What does improving the overall watershed profile of the watershed mean?
 - A: Improvements to a watershed profile occur when impacts to aquatic resources are offset by compensatory mitigation that is focused on types (classes) of aquatic resources that:
 - a. Naturally occur in a project watershed area or broader region,
 - b. May be relatively rare because of historical loss, and
 - c. Contribute to the connectivity of aquatic resources in the project watershed area.

For example, improvements to a watershed profile may occur when loss of seasonal depressional wetlands are offset with reestablishment of vernal pool wetlands. Another example, is when a seasonal depressional wetland (e.g., farmed wetland) impact is offset with a riverine wetland or slope wetland mitigation project. In some circumstances, loss in area of a common or none natural wetland type may be offset by improvement (lift) in the condition of a larger area of a different wetland type per above list criteria. In other words, improvements in the watershed profile may be documented based on change ("lift") in aquatic resource abundance, diversity (type/location) and/or condition.



FAQs (continued)

- Q3: What does "ecologically isolated" mean?
 - A: Ecological isolation means a site is geographically separated from other nearby habitats such that migration by wildlife to and from the site would be substantially impaired. For example:













POC's (PDT)

- SPA: Deanna Cummings
- SPD: Thomas Cavanaugh
- SPK: Will Ness
- SPL: Dan Swenson (PDT lead)
- SPN: Bryan Matsumoto
 - > Former PDT member: Laurie Monarres



Questions?



