

QA Project Plan Review Checklist

REVIEWER Adriane Borgias DATE 7/15/2014

Element	Acceptable as written? Y / N / NA	Comments
1. Title Page with Approvals		
Title, author, organization	Y	
Date prepared or revised	Y	
Signature page includes key individuals, per element 5 below	Y	
2. Table of Contents and Distribution List	Y	Add email addresses to Distribution List (recommended).
3. Background	Y	Abstract inserted after Table of Contents is useful but not required.
Study area and surroundings	Y	Section 1.2, Figure 2
Logistical problems	Y	Section 1.2, 1.3 ability to assess low concentrations of PCBs in the water
History of study area	Y	Section 1.2
Contaminants of concern	Y	Section 1.2, PCBs with dioxins as resources are addressed.
Results of previous studies	Y	Sections 1.2, 1.3
Regulatory criteria or standards	Y	Section 1.2
4. Project Description		
Project goals	Y	Section 1.3, eliminate selected data gaps: magnitude of true sources, PCB sources upstream of WA/ID border, loading from atmosphere and groundwater
Project objectives	Y	Section 1.3.2 Synoptic Survey (dry weather sampling for groundwater contribution); Section 1.3.3 Seasonal sampling (seasonal variation at inlet to the river);
Information needed and sources	Y	Project objectives informed by Section 1.3.1 Confidence Interval testing.
Target population	NA	
Study boundaries	Y	Figure 3
Tasks required	Y	
Practical constraints	Y	Section 1.2, 1.3 ability to assess low concentrations of PCBs in the water; also seasonal variations and flow regimes.
Systematic planning	Y	Section 1.2, 1.3 covers the following

process used		<ol style="list-style-type: none"> 1. State the problem 2. Identify the study question 3. Identify types of information needed 4. Establish study design constraints 5. Specify information quality 6. Develop a strategy for information synthesis 7. Optimize the design for collecting information <p>See the Performance and Acceptance Criteria Process: https://fortress.wa.gov/ecy/publications/publications/0403030.pdf</p>
5. Organization and Schedule	Y	Section 1.5
Key individuals and their responsibilities (project team, decision-makers, stakeholders, lab, etc.)	Y	Table 1
Organization chart	Y	Figure 1
Project schedule	Y	Section 1.3.4
Limitations on schedule	N	Add limitations on schedule due to state funding cycle, Section 1.3.4
Budget and funding	N	Add project budget
6. Quality Objectives	Y	
Decision Quality Objectives	NA	Data is not intended for regulatory decision making.
Measurement Quality Objectives	Y	Section 1.4
Table of targets for:		Tables 5, 6, 7, and 8
Precision	Y	Section 1.4.2
Bias	Y	Section 1.4.1
Sensitivity	Y	Section 1.4.6
Targets developed for:		
Comparability	Y	Section 1.4.5
Representativeness	Y	Section 1.4.3
Completeness	Y	Section 1.4.4
7. Sampling Process Design		
Study Design:	Y	Sections 1.2, 1.3, 2.1 and the SAP
Sampling location and frequency	Y	Table 3
Parameters to be determined	Y	Section 1.3.4, Table 4
Field measurements	Y	Table 4
Maps or diagrams	Y	Figures 2, 3

Assumptions underlying design	Y	Sections 1.2, 1.3
Relation to objectives and site characteristics	Y	Section 1.3
Characteristics of existing data	Y	Section 1.3
8. Sampling Procedures		
Field measurement and sampling SOPs	Y	Section 2.2.1, SAP
Measurement and sample collection	Y	Section 2.2.1, SAP
Containers, preservation, holding times	Y	Section 2.3, Table 9
Invasive species evaluation	Y	Section 2.2.1, SAP
Equipment decontamination	Y	Section 2.2, SAP
Sample ID	Y	Section 2.3.1, SAP
Chain-of-custody, if required	Y	Section 2.3.1, Section 2.3.2, SAP
Field log requirements	Y	Section 2, SAP
Other activities	NA	
9. Measurement Methods		
Lab procedures table, including:	Y	Table 10, Table 7
Analyte	Y	
Matrix	NA (water)	
Number of samples	Y	
Expected range of results	Y	Table 7
Analytical method Sensitivity	Y	Table 7
Sample preparation method	Y	Section 2.4, Appendix B
Special method requirements	Y	Appendix C
Field procedures table	Y	Table 3, Table 4, SAP
Lab(s) accredited for method(s)	Y	Section 1.5, Appendix B
10. Quality Control	Y	Section 2.5, Section 3
Table of lab and field QC required	Y	Table 11
Corrective action processes	Y	Section 3.1.4

11. Data Management Procedures	Y	Section 2.10
Data recording/reporting requirements	Y	Section 2.10
Lab data package requirements	Y	Section 2.10.2
Electronic transfer requirements	Y	Section 2.10.3
Acceptance criteria for existing data	NA	
EIM data upload procedures	Y	Section 2.10.3, Section 1.5
12. Audits and Reports		
Number, frequency, type, and schedule of audits	Y	Section 3.1.3
Responsible personnel	Y	Section 3.1.3
Frequency and distribution of reports	Y	Section 3.2
Responsibility for reports	Y	Section 3.2, Section 1.5
13. Data Verification	Y	Section 4.1, Section 4.2
Field data verification, requirements, and responsibilities	Y	Section 4.1, Section 4.2
Lab data verification	Y	Section 4.1, Section 4.2
14. Data Quality (Usability) Assessment		
Process for determining whether project objectives have been met	Y	Section 4.3
Data analysis and presentation methods	N	Add a section describing contents of final report
Treatment of non-detects	Y	Section 4.2
Sampling design evaluation	N	Add in Section 4.3 concept of sampling design evaluation and adaptive management.
Documentation of assessment	N	Add a section describing contents of final report
15. References	N	Add dates to LimnoTech memos
16. Figures	Y	
17. Tables	Y	