

Clean Rivers Cooperative (CRC) Technical Manual for the Cathlamet Planning Standard Area

Description: This manual was developed in accordance with WAC 173-182-349 and is for planning purposes only. It includes equipment appropriate for the operating environment on the Columbia River and can be used to show how recovery and storage systems could be put together and applied to the recovery and storage planning standards.

Plan Holder: Maritime Fire & Safety Association (MFSA)

Worst Case Discharge: The worst case discharge listed in the MFSA plan is 350,000 barrels.

Oil Types: The oil types handled by MFSA are 1-5.

Planning Assumptions: Clean Rivers equipment was used to create this technical manual. In certain systems non-dedicated vessels or vessels of opportunity were listed to enhance recovery operations or provide logistics. Clean Rivers Cooperative has contracts with NRC Environmental Services for additional “as-available” equipment. In addition, MFSA member equipment could be used to help deploy recovery and storage systems. Two Tidewater barges are listed as storage systems and are dedicated to spill response on the Columbia River. Several dedicated trucks exist in Portland to move equipment. However, in the calculation of the travel times, equipment that moves over the road was given a default mobilization time of 3 hours. Additional Clean Rivers equipment not listed in this manual, including portable skimmers and portable storage, can be found on the Worldwide Response Resource List (www.wrrl.us). This additional equipment could be used for shoreside collection strategies or as portable skimmers and storage paired with non-dedicated vessels for on-water recovery as needed.

Training Levels: Response Personnel hold current 8, 24 or 40 hour HAZWOPER certification in compliance with 29 CFR 1910.120 and WAC 296-824-300. Where required by USCG regulation, personnel that have vessel crewing assignments and responsibilities hold appropriate USCG Merchant Mariner Licenses and Endorsements.

Updates and Distribution: This planning document, per WAC 173-182-349, does not bind Clean Rivers or Plan holders to use the specific tactics during a spill or drill or guarantee what will occur in an actual spill event. Information is subject to change. This manual was created on 11/11/2015 and revised on 07/07/2026

Updated 07/07/2026

SYSTEM RECOVERY/STORAGE							
System Type	System Name	Qty	ETA (hours)	Planning Hour	Total Recovery (gallons)	Total Storage (bbls)	Page
On Water Recovery (w/storage)	OSRV HW Zarling	1	5	6	3,588	24	3
On Water Recovery (w/storage)	OSRV Mark O. Hatfield	1	2	6	3,588	24	5
On Water Recovery (w/storage)	OSRV Clean Rivers 1	1	5	6	3,588	24	7
On Water Recovery (w/storage)	OSRV MFSA 1	1	4	6	3,588	24	9
On Water Recovery (w/storage)	Shallow Water Recovery Barge w/Marco Belt Skimmer	3	4/5	6	10,764	300	11
On Water Recovery (w/storage)	Shallow Water Recovery Barge w/Marco Belt Skimmer	1	5	6	3588	100	17
On Water Recovery (w/storage)	Shallow Water Recovery Barge w/Marco Belt Skimmer	1	8	12	3588	100	21
Shoreside Recovery (w/storage)	TDS118 Grooved Drum Skimmer w/ 2,000 gallon Fast Tank Portable Storage	5	5	6	15,735	190	23
Shoreside Recovery (w/storage)	Various Skimmer Systems w/ 1,000 – 1,500 gallon Fast Tank Portable Storage	11	5	6	17,689	464	25
On Water Storage	Shallow Water Barge	5	4	6	0	510	27
On Water Storage	Current Buster #2	1	4	6	1440	96	29
On Water Storage (w/recovery)	TBL Barge #4	1	32	48	4457	12,000	31
On Water Storage (w/recovery)	TBL Barge #2	1	11	12	4457	18,000	33

Updated 07/07/2026

Cathlamet Technical Manual- (6 hour)- Recovery System Detail										Recovery System- OSRV HW Zarling		
				Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. Swath width is enhanced using one workboat and 300 feet of boom. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage. See Storage Systems, “Shallow Water Barge” or “TBL Barge” for more information.								
				Operating environment: Calm Water, Protected Water, or Shallow Water								
				Night Operations (describe how this system is capable of supporting night ops): The OSRV's have deck lights for nighttime operations. Night operations are based on safety and environmental conditions.								
				Oil type skimmer is optimized for: Group I, II, III and IV								
				Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): When setting up the skimmer, approximately 3/4 personnel are needed. It takes 2 personnel to operate the workboat for enhanced skimming.								
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ dedicated	29032	OSRV	OSRV3	OSRV HW Zarling	34' Kvichak W/ Marco Belt skimmer (includes boom from WRRL ID 60734)	3588	24	0	3	Cathlamet	WA	Elochoman Marina
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ dedicated	60734	Boom	B2	12" Boom	American Marine	0	0	1000	0	Cathlamet	OR	Elochoman Marina
PRC/ dedicated	31080	Workboat	WB4	20' Workboat	Alumaweld III w/ 105 HP engine	0	0	0	2	Portland	OR	Trailer

Updated 07/07/2026

Cathlamet Technical Manual- (6 hour)- Recovery System Detail	Recovery System- OSRV HW Zarling
Offloading Detail	
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, or shoreside storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min	
Mobilization Detail	
Mobilization method for recovery device (land/water): Water	
Mobilization method for each workboat(s): Land	
Transit speeds (only list if an alternative was granted by Ecology): OSRV HW Zarling, 24 kts	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 5 hours for the workboat. Zarling is located within the Cathlamet planning standard area.	
Support resources for mobilization: Pickup truck to move workboat on trailer.	
Support resources for deployment: Boat launch needed to deploy workboat.	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessel.	
Photographs of equipment:	
	
HW Zarling	Alumaweld III Workboat

Cathlamet Technical Manual- (6 hour)- Recovery System Detail										Recovery System- Mark O. Hatfield		
		Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage. See Storage Systems, "Shallow Water Barge" or "TBL Barge" for more information.										
		Operating environment: Calm Water, Protected Water, or Shallow Water										
		Night Operations (describe how this system is capable of supporting night ops): The OSRV's have deck lights for nighttime operations. Night operations are based on safety and environmental conditions.										
		Oil type skimmer is optimized for: Group I, II, III and IV										
		Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): When setting up the skimmer, approximately 3/4 personnel are needed.										
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	29034	OSRV	OSRV3	OSRV Mark O Hatfield	34' Kvichak W/ Marco Belt skimmer	3588	24	0	3	Portland	OR	Sause Bros
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	29143	Boom	B2	12" Boom	American Marine	0	0	500	0	Portland	OR	Sause Bros

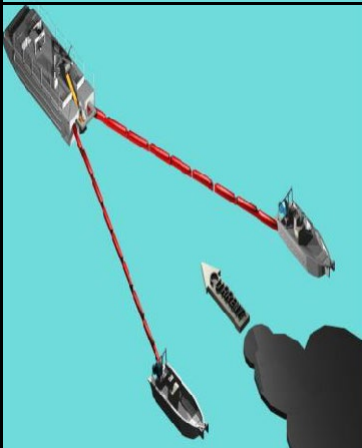
Cathlamet Technical Manual- (6 hour)- Recovery System Detail	Recovery System- Mark O Hatfield
Offloading Detail	
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, or land side storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min	
Mobilization Detail	
Mobilization method for recovery device (land/water): Water	
Mobilization method for each workboat(s): N/A	
Transit speeds (only list if an alternative was granted by Ecology): Mark O Hatfield, 24 knots.	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 4 hours (1 hour mobilization + 3 hour transit)	
Support resources for mobilization: None	
Support resources for deployment: None	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessel.	
Photographs of equipment:	
	
Mark O. Hatfield	

Cathlamet Technical Manual- (6 hour)- Recovery System Detail							Recovery System- Clean Rivers 1					
	Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. Swath width is enhanced with 300' of boom and a workboat. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage. See Storage Systems, “Shallow Water Barge” or “TBL Barge” for more information.											
	Operating environment: Calm Water, Protected Water, or Shallow Water											
	Night Operations (describe how this system is capable of supporting night ops): The OSRV’s have deck lights for nighttime operations. Night operations are based on safety and environmental conditions.											
	Oil type skimmer is optimized for: Group I, II, III and IV											
	Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): When setting up the skimmer approximately 3/4 personnel are needed. After the skimming system is set up, it will only take 2 personnel to run the OSRV safely											
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	29035	OSRV	OSRV3	OSRV MFSA 1	34' Kvichak W/ Marco Belt Skimmer (includes boom from WRRRL ID 62126	3588	24	0	3	Longview	WA	Willow Grove
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	62126	Boom	B2	12" Boom	American Marine	0	0	500	0	Longview	WA	Clean Rivers 1
PRC/ Dedicated	37400	Vessel	WB4	Response Vessel “Guardian”	23' North River	0	0	0	2	Portland	OR	Portland Base

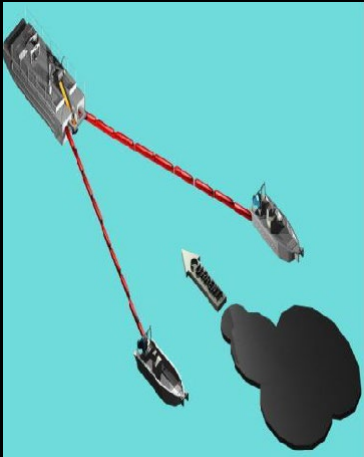
Cathlamet Technical Manual- (6 hour)- Recovery System Detail	Recovery System- Clean Rivers 1
Offloading	
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, shoreside storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min.	
Mobilization	
Mobilization method for recovery device (land/water): Water	
Mobilization method for each workboat(s): North River Work boat mobilized via truck and trailer.	
Transit speeds (only list if an alternative was granted by Ecology): 22 kts for MFSA 1	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 2 hours for Clean Rivers 1, 5 hours for the Response Vessel Guardian	
Support resources for mobilization: Pickup truck to move workboats on trailer.	
Support resources for deployment: Boat ramp needed to launch workboat.	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessel.	
Photographs of equipment:	
	
Guardian	Clean Rivers 1

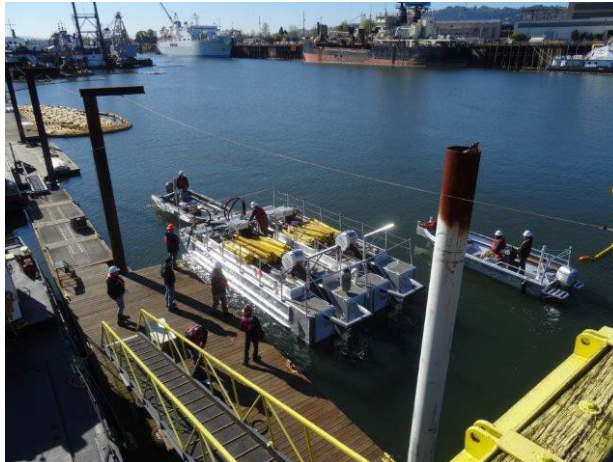
Cathlamet Technical Manual- (6 hour)- Recovery System Detail										Recovery System- MFSA 1		
		Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage. See Storage Systems, “Shallow Water Barge” or “TBL Barge” for more information.										
		Operating environment: Calm Water, Protected Water, or Shallow Water										
		Night Operations (describe how this system is capable of supporting night ops): The OSRV’s have deck lights for nighttime operations. Night operations are based on safety and environmental conditions.										
		Oil type skimmer is optimized for: Group I, II, III and IV										
		Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): when setting up skimmer approximately 3/4 personnel.										
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	29034	OSRV	OSRV3	OSRV Clean Rivers 1	34' Kvichak w/ Marco Belt Skimmer (includes boom from WRRRL ID 62127)	3588	24	0	3	Portland	OR	Aquatic Contracting
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	62127	Boom	B2	12" Boom	American Marine	0	0	500	0	Portland	OR	MFSA 1

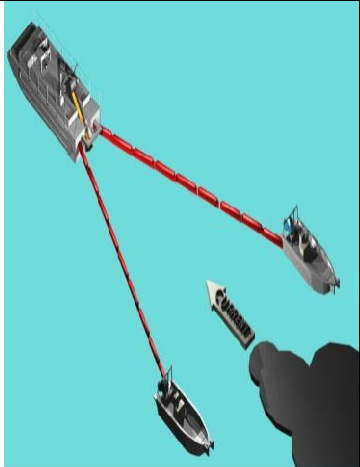
Cathlamet Technical Manual- (6 hour)- Recovery System Detail	Recovery System- MFSA 1
Offloading Detail	
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, shoreside storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min	
Mobilization Detail	
Mobilization method for recovery device (land/water): Water	
Mobilization method for each workboat(s): N/A	
Transit speeds (only list if an alternative was granted by Ecology): 22 knots	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 4 hours	
Support resources for mobilization: None	
Support resources for deployment: None	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessel.	
Photographs of equipment:	
	
OSRV MFSA 1	

Cathlamet Technical Manual- (6 hour)- Recovery System Detail										Recovery System- Shallow Water Recovery Barge 102-29		
	Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage or to shoreside storage. 2 workboats from NRCES or non-dedicated workboats can be used to enhance recovery using boom stored on board the shallow water barge. It is also possible to connect 2 Shallow Water Recovery barges together to double the storage and recovery with the same amount of workboats.											
	Operating environment: Calm Water, Protected Water, or Shallow Water											
	Night Operations (describe how this system is capable of supporting night ops): Not capable of night operations											
	Oil type skimmer is optimized for: Group I, II, III and IV											
	Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): approximately 3 personnel are on the barge to operate it safely. 2 personnel are required for the push boat, and 2 each for any workboats used to enhance recovery.											
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	29053	OSRV	OSRV3	Shallow Water Recovery Barge	30' Kvichak w/ Marc Belt Skimmer (includes boom from WRRl ID 29148)	3588	100	0	3	Astoria	OR	Tongue Point
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/Dedicated	29148	Boom	B3	12" Boom	American Marine	0	0	200	0	Astoria	OR	SWRB 102-29
PRC/Dedicated	29039	Vessel	WB4	20' Workboat	20' Alumaweld I	0	0	0	2	Portland	OR	Portland Base
Non-dedicated	VOO	Vessel	WB4						2	Columbia River		
Non-dedicated	VOO	Vessel	WB4						2	Columbia River		

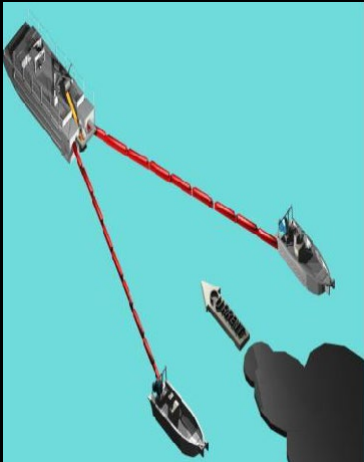
Cathlamet Technical Manual- (6 hour)- Recovery System Detail	Recovery System- Shallow Water Recovery Barge 102-29
Offloading Detail	
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, shoreside storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min	
Mobilization Detail	
Mobilization method for recovery device (land/water): SWRB mobilized using a truck and trailer.	
Mobilization method for each workboat(s): Dedicated workboat mobilized using a truck and trailer.	
Transit speeds (only list if an alternative was granted by Ecology): N/A	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 4 hours for SWB, 5 hours for workboat	
Support resources for mobilization: Two trucks are needed to move the trailers.	
Support resources for deployment: Two non-dedicated workboats can be used to enhance skimming. Boat ramp is needed to launch the workboats.	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessels.	
Photographs of equipment:	
	
20' Workboat	Shallow Water Recovery Barge

Cathlamet Technical Manual- (6 hour)- Recovery System Detail										Recovery System- Shallow Water Recovery Barge 106-29			
				Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage or to shoreside storage. 2 workboats from NRCS or non-dedicated workboats can be used to enhance recovery using boom stored on board the shallow water barge. It is also possible to connect 2 Shallow Water Recovery barges together to double the storage and recovery with the same amount of workboats.									
				Operating environment: Calm Water, Protected Water, or Shallow Water									
				Night Operations (describe how this system is capable of supporting night ops): Not capable of night operations									
				Oil type skimmer is optimized for: Group I, II, III and IV									
				Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): approximately 3 personnel are on the barge to operate it safely. 2 personnel are required for the push boat, and 2 each for any workboats used to enhance recovery.									
Recovery Device Detail													
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging	
PRC/ Dedicated	29057	OSRV	OSRV3	Shallow Water Recovery Barge	30' American Eagle w/ Marco Belt Skimmer (includes boom from WRRRL ID 29147)	3588	100	0	3	Clatskanie	OR	Columbia Pacific Bio-Refinery	
Associated Vessel and Boom Detail													
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging	
PRC/Dedicated	29147	Boom	B3	12" Boom	American Marine	0	0	200	0	Clatskanie	OR	SWB 106-29	
PRC/Dedicated	33907	Vessel	WB4	25' Workboat 0 Interceptor	25' Alumaweld	0	0	0	2	Clatskanie	OR	Columbia Pacific Bio-Refinery	
Non-dedicated	VOO	Vessel	WB4						2	Columbia River			
Non-dedicated	VOO	Vessel	WB4						2	Columbia River			

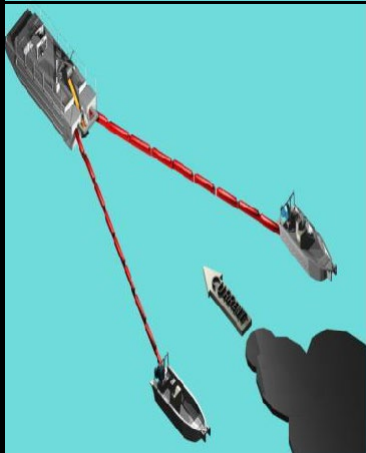
Cathlamet Technical Manual- (6 hour)- Recovery System Detail		Recovery System- Shallow Water Recovery Barge 106-29
Offloading Detail		
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, or shoreside storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min		
Mobilization Detail		
Mobilization method for recovery device (land/water): SWRB mobilized using a truck and trailer.		
Mobilization method for each workboat(s): Dedicated workboat is stored and travels to site on water.		
Transit speeds (only list if an alternative was granted by Ecology): FRV Independence @ 9kts		
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 4 hours		
Support resources for mobilization: Truck and trailer for the SWRB.		
Support resources for deployment: Two non-dedicated workboats can be used to enhance skimming. Boat ramp is needed to launch the workboats.		
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessel.		
Photographs of equipment:		
		
Interceptor		Shallow Water Recovery Barge

Cathlamet Technical Manual- (6 hour)- Recovery System Detail										Recovery System- Shallow Water Recovery Barge 100-29		
	Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage or to shoreside storage. 2 workboats from NRCES or non-dedicated workboats can be used to enhance recovery using boom stored on board the shallow water barge. It is also possible to connect 2 Shallow Water Recovery barges together to double the storage and recovery with the same amount of workboats.											
	Operating environment: Calm Water, Protected Water, or Shallow Water											
	Night Operations (describe how this system is capable of supporting night ops): Not capable of night operations											
	Oil type skimmer is optimized for: Group I, II, III and IV											
	Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): approximately 3 personnel are on the barge to operate it safely. 2 personnel are required for the push boat, and 2 each for any workboats used to enhance recovery.											
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	29055	OSRV	OSRV3	Shallow Water Recovery Barge	30' Kvichak w/ Marco Belt Skimmer (includes boom from WRRRL ID 29151	3588	100	0	3	Longview	WA	Port of Longview
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/Dedicated	29151	Boom	B3	12" Boom	American Marine	0	0	200	0	Longview	WA	SWRB 100-29
PRC/Dedicated	29029	Vessel	WB3	FRV Columbia Responder	32' Kvichak	0	0	0	2	Astoria	OR	West Mooring Basin, Port of Astoria
Non-dedicated	VOO	Vessel	WB4						2	Columbia River		
Non-dedicated	VOO	Vessel	WB4						2	Columbia River		

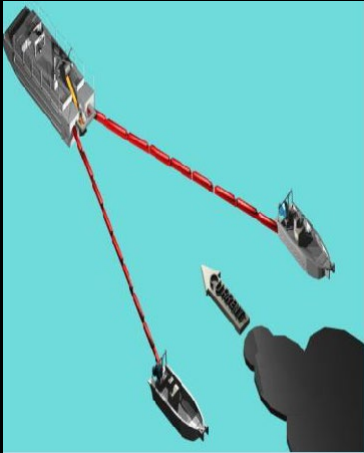
Cathlamet Technical Manual- (6 hour)- Recovery System Detail	Recovery System- Shallow Water Recovery Barge 100-29
Offloading Detail	
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, or shoreside storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min	
Mobilization Detail	
Mobilization method for recovery device (land/water): SWRB mobilized using a truck and trailer.	
Mobilization method for each workboat(s): Dedicated workboat is stored and travels to site on water.	
Transit speeds (only list if an alternative was granted by Ecology): FRV Columbia Responder @ 16kts	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 3 hours for the Columbia Responder, 4 hours for the SWRB	
Support resources for mobilization: Truck and trailer for the SWRB.	
Support resources for deployment: Two non-dedicated workboats can be used to enhance skimming. Boat ramp needed to deploy the recovery barge and workboats.	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessel.	
Photographs of equipment:	
 A photograph of the FRV Columbia Responder, a white boat with blue accents, docked at a wooden pier. The boat has a blue tarp covering its deck. A timestamp in the bottom right corner reads '14/08/2013 11:17'.	 A photograph of the Shallow Water Recovery Barge (SWRB), a white barge with blue accents, mounted on a multi-axle trailer. The barge is covered with a blue tarp and is parked inside a large, dark industrial building.
FRV Columbia Responder	Shallow Water Recovery Barge

Cathlamet Technical Manual- (6 hour)- Recovery System Detail							Recovery System- Shallow Water Recovery Barge 105-29					
	Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage or to shoreside storage. 2 workboats from NRCES or non-dedicated workboats can be used to enhance recovery using boom stored on board the shallow water barge. It is also possible to connect 2 Shallow Water Recovery barges together to double the storage and recovery with the same amount of workboats.											
	Operating environment: Calm Water, Protected Water, or Shallow Water											
	Night Operations (describe how this system is capable of supporting night ops): Not capable of night operations											
	Oil type skimmer is optimized for: Group I, II, III and IV											
	Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): approximately 3 personnel are on the barge to operate it safely. 2 personnel are required for the push boat, and 2 each for any workboats used to enhance recovery.											
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	29050	OSRV	OSRV3	Shallow Water Recovery Barge	30' American Eagle w/ Marco Belt Skimmer (includes boom from WRRRL ID 29146)	3588	100	0	3	Portland	OR	Aquatic contracting
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/Dedicated	29146	Boom	B3	12" Boom	American Marine	0	0	200	0	Portland	OR	SWRB 105-29
PRC/Dedicated	29031	Vessel	WB3	FRV Protector	34' Munson	0	0	0	2	Portland	OR	Republic Services Dock
Non-dedicated	VOO	Vessel	WB4						2	Columbia River		
Non-dedicated	VOO	Vessel	WB4						2	Columbia River		

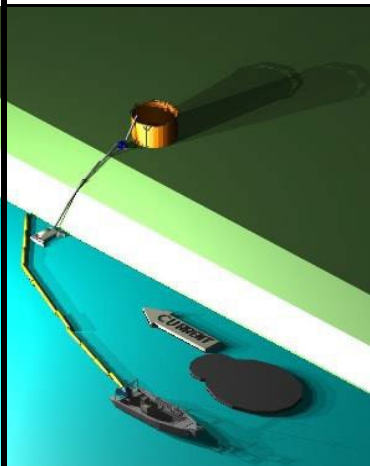
Cathlamet Technical Manual- (6 hour)- Recovery System Detail		Recovery System- Shallow Water Recovery Barge 105-29
Offloading Detail		
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, or shoreside storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min		
Mobilization Detail		
Mobilization method for recovery device (land/water): SWRB mobilized using a truck and trailer.		
Mobilization method for each workboat(s): Water		
Transit speeds (only list if an alternative was granted by Ecology): None		
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 9 hours for the FRV Protector (5kt speed), 5 hours for the SWRB		
Support resources for mobilization: Truck and trailer for the SWRB.		
Support resources for deployment: Two non-dedicated workboats can be used to enhance skimming. Boat ramp is needed to deploy the recovery barge and workboats.		
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessel.		
Photographs of equipment:		
		
FRV Protector		Shallow Water Recovery Barge

Cathlamet Technical Manual- (6 hour)- Recovery System Detail										Recovery System- Shallow Water Recovery Barge 101-29			
					Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage or to shoreside storage. 2 workboats from NRCES or non-dedicated workboats can be used to enhance recovery using boom stored on board the shallow water barge. It is also possible to connect 2 Shallow Water Recovery barges together to double the storage and recovery with the same amount of workboats.								
					Operating environment: Calm Water, Protected Water, or Shallow Water								
					Night Operations (describe how this system is capable of supporting night ops): Not capable of night operations								
					Oil type skimmer is optimized for: Group I, II, III and IV								
					Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): approximately 3 personnel are on the barge to operate it safely. 2 personnel are required for the push boat, and 2 each for any workboats used to enhance recovery.								
Recovery Device Detail													
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging	
PRC/ Dedicated	29054	OSRV	OSRV3	Shallow Water Recovery Barge	30' Kvichak w/ Marco Belt Skimmer (includes boom from WRRl ID 29150)	3588	100	0	3	Portland	OR	Portland Base	
Associated Vessel and Boom Detail													
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging	
PRC/Dedicated	29150	Boom	B3	12" Boom	American Marine	0	0	200	0	Portland	OR	SWB 101-29	
PRC/Dedicated	72690	Vessel	WB4	20' Workboat'	JWS Aluminum w/ twin 90hp	0	0	0	2	Portland	OR	Portland Base	
Non-dedicated	VOO	Vessel	WB4						2	Columbia River			
Non-dedicated	VOO	Vessel	WB4						2	Columbia River			

Cathlamet Technical Manual- (6 hour)- Recovery System Detail	Recovery System- Shallow Water Recovery Barge 101-29
Offloading	
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, or shoreside storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min	
Mobilization Detail	
Mobilization method for recovery device (land/water): SWRB mobilized using a truck and trailer.	
Mobilization method for each workboat(s): Dedicated workboat mobilized using a truck and trailer.	
Transit speeds (only list if an alternative was granted by Ecology): None	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 5 hours for workboat, 5 hours for SWRB	
Support resources for mobilization: Two trucks are needed to move the trailers.	
Support resources for deployment: Two non-dedicated workboats can be used to enhance skimming.	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessel.	
Photographs of equipment:	
	
20' Workboat	Shallow Water Recovery Barge

Cathlamet Technical Manual- (12 hour)- Recovery System Detail							Recovery System- Shallow Water Recovery Barge 103-29					
	Tactic purpose and description: The purpose of this tactic is on-water recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is off loaded to available on-water storage or to shoreside storage. 2 workboats from NRCES or non-dedicated workboats can be used to enhance recovery using boom stored on board the shallow water barge. It is also possible to connect 2 Shallow Water Recovery barges together to double the storage and recovery with the same amount of workboats.											
	Operating environment: Calm Water, Protected Water, or Shallow Water											
	Night Operations (describe how this system is capable of supporting night ops): Not capable of night operations											
	Oil type skimmer is optimized for: Group I, II, III and IV											
	Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): approximately 3 personnel are on the barge to operate it safely. 2 personnel are required for the push boat, and 2 each for any workboats used to enhance recovery.											
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	29052	OSRV	OSRV3	Shallow Water Recovery Barge	30' Kvichak w/ Marco Belt Skimmer (includes boom from WRRL ID 29147)	3588	100	0	3	Pasco	OR	Pasco
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/Dedicated	29149	Boom	B3	12" Boom	American Marine	0	0	200	0	Pasco	OR	Pasco
PRC/Dedicated	29157	Vessel	WB4	20' Workboat	Alumaweld II	0	0	0	2	Pasco	OR	Pasco
Non-dedicated	VOO	Vessel	WB4		w/115 hp				2	Columbia River		
Non-dedicated	VOO	Vessel	WB4						2	Columbia River		

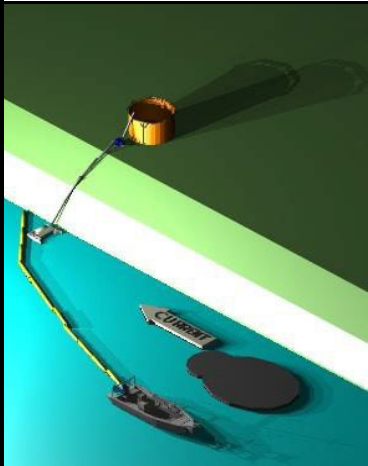
Cathlamet Technical Manual- (12 hour)- Recovery System Detail	Recovery System- Shallow Water Recovery Barge 103-29
Offloading Detail	
Offloading narrative and pump rate description: The oil spill response vessel may be offloaded into a barge, vacuum truck, or shoreside storage. Transfer pump is rated at 350 gpm or 8.3 bbl/min	
Mobilization Detail	
Mobilization method for recovery device (land/water): SWRB mobilized using a truck and trailer.	
Mobilization method for each workboat(s): Dedicated workboat mobilized using a truck and trailer.	
Transit speeds (only list if an alternative was granted by Ecology): None	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 8 hours	
Support resources for mobilization: Two trucks are needed to move the trailers.	
Support resources for deployment: Two non-dedicated workboats can be used to enhance skimming. Boat ramp is needed to deploy workboats and recovery barge	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff working on vessel.	
Photographs of equipment:	
	
20' Workboat	Shallow Water Recovery Barge

Cathlamet Technical Manual- (6 hour)- Recovery System Detail										Recovery System- TDS188 Grooved Drum Skimmer		
				Tactic purpose and description: The purpose of this tactic is shoreside recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is collected in a portable fast tank and then removed via vacuum truck. Length of boom can vary based on conditions between 100' and 1000'. Equipment listed below is for two shoreside skimming systems.								
				Operating environment: Calm Water, Protected Water, or Shallow Water								
				Night Operations (describe how this system is capable of supporting night ops): Capable of night operations as long as location is in a lighted area. Shoreside operation of skimmer is possible during the night.								
				Oil type skimmer is optimized for: Group I, II, III and IV								
				Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): when setting up skimmer, shoreside storage and deploying the boom approximately 3 personnel are needed. It would only take 2 people after the system is set up for each 12 hr. shift.								
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	5-Total 35717 40884 36699 36698 35659	Skimmer Portable	PS-2	TDS118 Grooved Drum Skimmer	Yanmar Diesel Hydraulic Power Unit and 3" E150 Centrifugal Pump	3147	0	0	0	Portland	OR	Portland Base
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	30500	Vessel	WB4	18' Skiff	18' Skiff w/ 25hp	0	0	0	1	Portland	OR	Kinder Morgan Warehouse
PRC/ Dedicated	4 Total 31676 31375 67367 67365	Storage	PS4	2000 gal. Portable Storage Tank	Fast Tank Storage Tank	0	47	0	0	Portland	OR	Portland Base
PRC/ Dedicated	29138	Boom	B2	20" Boom	American Marine	0	0	2500	0	Skamokawa	WA	28' Trailer, Vista Park

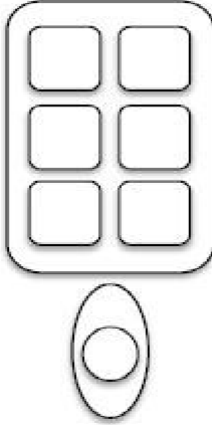
Updated 07/07/2026

Cathlamet Technical Manual- (6 hour)- Recovery System Detail		Recovery System- TDS188 Grooved Drum Skimmer
Offloading Detail		
Offloading narrative and pump rate description: Fast tank would be pumped out by a vacuum truck.		
Mobilization Detail		
Mobilization method for recovery device (land/water): Mobilized via truck over land.		
Mobilization method for each workboat(s): Skiff would be launched from the shore to deploy boom in order to deflect oil to the skimmer.		
Transit speeds (only list if an alternative was granted by Ecology): N/A		
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 5 hours		
Support resources for mobilization: Pickup trucks needed to transport the skiff and skimmers.		
Support resources for deployment: Anchors for deployment of boom would vary based on the operating environment. Boom-vane could also be used.		
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff.		
Photographs of equipment:		
 		
Portable Storage 18' Skiff		TDS118 Grooved Drum Skimmer

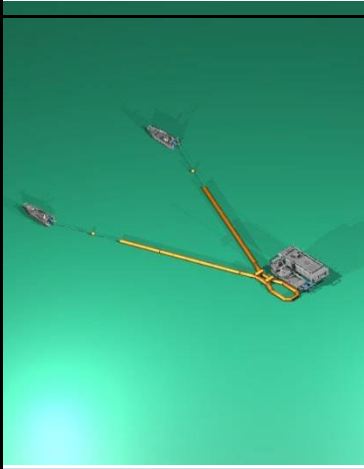
Updated 07/07/2026

Cathlamet Technical Manual- (6 hour)- Recovery System Detail							Recovery System- Various Skimmers w/ 1000 gallon fast tank					
	Tactic purpose and description: The purpose of this tactic is shoreside recovery of oil in a protected or shallow water operating environment. To promote the ability for continuous recovery operations, the tactic assumes that recovered oil is collected in a portable fast tank and then removed via vacuum truck. Length of boom can vary based on conditions between 100' and 1000'. Equipment listed below is for six shoreside skimming systems.											
	Operating environment: Calm Water, Protected Water, or Shallow Water											
	Night Operations (describe how this system is capable of supporting night ops): Capable of night operations as long as location is in a lighted area. Shoreside operation of skimmer is possible during the night.											
	Oil type skimmer is optimized for: Group I, II, III and IV											
	Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): when setting up skimmer, shoreside storage and deploying the boom approximately 3 personnel are needed. It would only take 2 people after the system is set up for each 12 hr. shift.											
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	<u>5 Total</u> (3-36" 2-12")	Skimmer Portable	SK3	36" or 12" Coated Drum Skimmer	Yanmar Diesel Hydraulic Power Unit and 3" Hydraulic Diaphragm Pump	891	0	0	2	Portland	OR	Portland Base
PRC/ Dedicated	<u>2 Total</u> 29089 29092	Skimmer Portable	SK4	Desmi Terminator Skimmer	75hp HPU, hose reel w/ 300ft hose	3017	0	0	2	Portland	OR	Kinder Morgan Warehouse
PRC/ Dedicated	<u>3 Total</u> 29087 29088 61167	Skimmer Portable	SK3	API Drum/Brush Skimmer	Built in pup system	2400	0	0	2	Portland	OR	Portland Base
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	<u>11 Total</u> (3 - 1,500 8 - 1,000)	Storage	PS4	1000 & 1500 gal. Portable Storage Tank	Fast Tanks Storage Tank	0	24	0	0	Portland	OR	Portland Base
PRC/ Dedicated	various- 6 total	Skiff	WB5	14' or 16' skiff	15 or 25 HP engine	0	0	0	2	Portland	OR	Portland Base

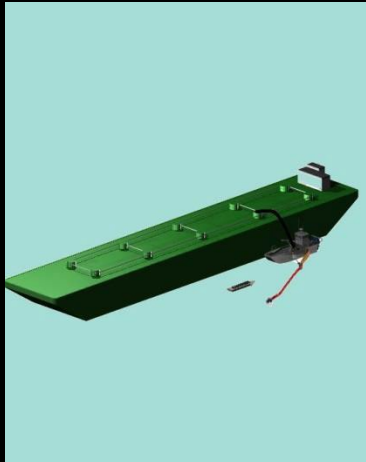
Cathlamet Technical Manual- (6 hour)- Recovery System Detail	Recovery System- Various Skimmers w/ 1000 gallon fast tank
Offloading Detail	
Offloading narrative and pump rate description: If storage is a fast tank, it would be pumped out with a vacuum truck. If storage was a vacuum truck it would be rotated out when full.	
Mobilization Detail	
Mobilization method for recovery device (land/water): Mobilized via truck over land.	
Mobilization method for each workboat(s): Skiff would be needed to deploy boom to collect oil shoreside.	
Transit speeds (only list if an alternative was granted by Ecology): N/A	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 5 hours	
Support resources for mobilization: Pickup trucks needed to transport the skiff and skimmers.	
Support resources for deployment: Anchors for deployment of boom would vary based on the operating environment. Boom-vane could also be used.	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff.	
Photographs of equipment:	
     	
Various Portable Skimmers and Portable Storage	

Cathlamet Technical Manual- (6 hour)- Storage System Detail						Storage System- Shallow Water Barge						
		Tactic purpose and description: The purpose of this tactic is to storage oil that has been collected on water. Barge can operate in shallow environments and requires a workboat to move the barge to the desired location. The barge could also be anchored in a stationary position or moored to a dock and used to store recovered oil. Equipment listed below is for 5 systems.										
		Operating environment: Calm Water, Protected Water, or Shallow Water										
		Night Operations (describe how this system is capable of supporting night ops): Barge itself doesn't have lights but is capable of night operations as long as location is in a lighted area.										
		Oil type storage is optimized for: Group I, II, III and IV										
		Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): The shallow water barge requires at least one workboat with a minimum of 2 people. 2 additional people are also initially needed to help deploy the barge.										
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	various- 4 units are available	Storage	TB4	Shallow Water Barge	30' American Eagle	0	100	0	2	Portland	OR	Portland Base
PRC/ Dedicated		Storage	TB4	Shallow Water Barge	30' American Eagle	0	110	0	2	Portland	OR	Portland Base
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
Non-dedicated	VOO	Vessel	WB3	Workboat	Workboat	0	0	0	2	Columbia River	WA/OR	Water/Land

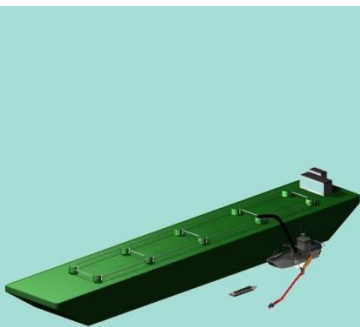
Cathlamet Technical Manual- (6 hour)- Storage System Detail	Storage System- Shallow Water Barge
Offloading Detail	
Offloading narrative and pump rate description: There are no pumps on board the shallow water barge. They are pumped off where they offload their product. Pumping rates will depend on the location of offload.	
Mobilization Detail	
Mobilization method for storage device (land/water): Mobilized via truck over land.	
Mobilization method for each workboat(s): Either land or water.	
Transit speeds (only list if an alternative was granted by Ecology): N/A	
Time for the entire system to arrive on scene (mobilization for all resources detailed above):	
Support resources for mobilization: Pickup truck to move barge which is stored on a trailer.	
Support resources for deployment: Requires a workboat to move the barge once deployed in the water.	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff.	
Photographs of equipment:	
	
Shallow Water Barge and Trailer	

Cathlamet Technical Manual- (6 hour)- Storage System Detail										Storage System- Current Buster #2		
	Tactic purpose and description: The purpose of this tactic is calm/protected/or fast water collection and storage. This tactic assumes the Current Buster will be deployed using two workboats capable of towing the unit. To promote the ability for continuous recovery operations, the tactic assumes that collected oil is offloaded to available on-water storage.											
	Operating environment: Calm Water, Protected Water, or Fast Water											
	Night Operations (describe how this system is capable of supporting night ops): This storage system is capable of night operations using lighting and navigation equipment of VOO vessels. Night operations are subject to safety, weather, and other considerations.											
	Oil type skimmer is optimized for: Group I, II, III and IV											
	Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): Estimated that there will be 2 people for each towing vessel and 4-5 people to help deploy the Current Buster.											
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	31774	Boom	B2	Boom (Current Buster 2)	NOFI Current Buster 2 w/ 13/30 Disc Skimmer	1440	96	136	5	Portland	OR	Portland Base
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
Non- dedicated	VOO	Vessel	WB4	workboat	workboat	0	0	0	2	Columbia River	WA/OR	Water/Land
Non- dedicated	VOO	Vessel	WB4	workboat	workboat	0	0	0	2	Columbia River	WA/OR	Water/Land

Cathlamet Technical Manual- (6 hour)- Storage System Detail	Storage System- Current Buster #2
Offloading Detail	
Offloading narrative and pump rate description: Buster may be offloaded to on-water storage when full. Transfer pump options and rates vary.	
Mobilization Detail	
Mobilization method for recovery device (land/water): Mobilized via truck over land.	
Mobilization method for each workboat(s): Workboats could either be mobilized via land or water.	
Transit speeds (only list if an alternative was granted by Ecology): N/A	
Time for the entire system to arrive on scene (mobilization for all resources detailed above):	
Support resources for mobilization: PRC/dedicated truck	
Support resources for deployment: Two non-dedicated workboats (VOO) or NRCES vessels may be used to deploy the Current Buster.	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff.	
Photographs of equipment:	
	
NOFI Current Buster 2	

Cathlamet Technical Manual- (48 hour)- Storage/Recovery System Detail										Storage/Recovery System- Tidewater Barge 4		
	Tactic purpose and description: The purpose of this tactic is the bulk recovery and on water storage of oil. Barge holds 23,000 barrels and a Countervac is stored on board that can connect to 3 skimmer heads for the recovery of oil. Moving the barge relies on a non-dedicated towing vessel available under letter of intent (LOI).											
	Operating environment: Calm Water, Protected Water, or Shallow Water											
	Night Operations (describe how this system is capable of supporting night ops): Capable of night operations if in a lighted area or if portable lights are set up on the barge.											
	Oil type skimmer is optimized for: Group I, II, III and IV											
	Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): Two Tidewater personnel are required to run the barge, and 2-4 personnel to run the tug. 3 additional personnel are needed to run the skimmers.											
Storage/Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	29116	Storage	TB2	Barge 4	208' x 40' x 9.9'	0	12,000	0	5	Pasco	WA	Tidewater Facility Pasco
PRC/ Dedicated	29194	Equipment	SR0	CounterVac 3315	21' pull on 3" hose	0	12	0	1	Pasco	WA	Tidewater Barge 4
PRC/ Dedicated	61120	Skimmer Portable	SK2	Slickbar "High Capacity Oil Skimmer"	For use with CounterVac	343	0	0	1	Pasco	WA	Tidewater Barge 4
PRC/ Dedicated	29102	Skimmer Portable	SK3	Douglas 18000 Skim-Pak	For use with CounterVac	2057	0	0	1	Pasco	WA	Tidewater Barge 4
PRC/ Dedicated	29103	Skimmer Portable	SK3	Douglas 18000 Skim-Pak	For use with CounterVac	2057	0	0	1	Pasco	WA	Tidewater Barge 4
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
Non- dedicated	LOI	Tug	TUG2	LOI	>1,500 HP	0	0	0	4	Columbia River	WA/OR	In Water

Cathlamet Technical Manual- (48 hour)- Storage/Recovery System Detail	Storage/Recovery System- Tidewater Barge 4
Offloading Detail	
Offloading narrative and pump rate description: Barge can be offloaded to shoreside storage when full.	
Mobilization Detail	
Mobilization method for recovery device (land/water): Water	
Mobilization method for each workboat(s): Tug must be in-water.	
Transit speeds (only list if an alternative was granted by Ecology): N/A	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 32 hours	
Support resources for mobilization: Tug needed to mobilize the barge.	
Support resources for deployment: N/A	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff. Staff on barge must hold qualifications for transferring oil.	
Photographs of equipment:	
Tidewater Barge, Douglas 1800 SkimPak, and Countervac 3315	

Cathlamet Technical Manual- (12 hour)- Storage/Recovery System Detail										Storage/Recovery System- Tidewater Barge #2		
				Tactic purpose and description: The purpose of this tactic is the bulk recovery and on water storage of oil. Barge holds 23,000 barrels and a Countervac is stored on board that can connect to 3 skimmer heads for the recovery of oil. Moving the barge relies on a non-dedicated towing vessel available under letter of intent (LOI).								
				Operating environment: Calm Water, Protected Water, or Shallow Water								
				Night Operations (describe how this system is capable of supporting night ops): Capable of night operations if in a lighted area or if portable lights are set up on the barge.								
				Oil type skimmer is optimized for: Group I, II, III and IV								
				Minimum number of personnel for a 12 hour shift (also list 24 hour shift if the system conducts night operations): Two Tidewater personnel are required to run the barge, and 3-4 personnel to run the tug. 3 additional personnel are needed to run the skimmers.								
Recovery Device Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
PRC/ Dedicated	30972	Storage	TB2	Barge #2	242' x 42' x 16.6'	0	18000	0	5	Vancouver	WA	Tidewater Vancouver
PRC/ Dedicated	29100	Skimmer Portable	SK3	Douglas 18000 Skim-Pak	For use with CounterVac	2057	0	0	1	Vancouver	WA	Tidewater Barge # 2
PRC/ Dedicated	29101	Skimmer Portable	SK3	Douglas 18000 Skim-Pak	For use with CounterVac	2057	0	0	1	Vancouver	WA	Tidewater Barge # 2
PRC/ Dedicated	29195	Equipment	SR0	CounterVac 3315	21' pull on 3" hose	0	12	0	1	Vancouver	WA	Tidewater Barge # 2
PRC/ Dedicated	61120	Skimmer Portable	SK2	Slickbar "High Capacity Oil Skimmer"	For use with CounterVac	343	0	0	1	Vancouver	WA	Tidewater Barge # 2
Associated Vessel and Boom Detail												
Ownership	Wrrl ID	Resource	Kind Type	Identification	Specifications	Recovery EDRC	Liquid Storage	Boom	People	Home Base	State	Staging
Non- dedicated	LOI	Tug	TUG2	LOI	>1,500 HP	0	0	0	4	Columbia River	WA/OR	In Water

Updated 07/07/2026

Cathlamet Technical Manual- (12 hour)- Storage/Recovery System Detail	Storage/Recovery System- Tidewater Barge #2
Offloading Detail	
Offloading narrative and pump rate description: Barge can be offloaded to shoreside storage when full.	
Mobilization Detail	
Mobilization method for recovery device (land/water): Water	
Mobilization method for each workboat(s): Tug must be in-water.	
Transit speeds (only list if an alternative was granted by Ecology): N/A	
Time for the entire system to arrive on scene (mobilization for all resources detailed above): 11 hours	
Support resources for mobilization: Tug needed to mobilize the barge.	
Support resources for deployment: N/A	
Training of personnel for deployment: OSHA 24 hour HAZWOPER training for all staff. Staff on barge must hold qualifications for transferring oil.	
Photographs of equipment:	
 	
Tidewater Barge with Douglas 1800 SkimPak and Non-Dedicated Tug	