

## ***Appendix 7-B***

### ***CWP Retrofit Reconnaissance Investigation Checklist***

This Appendix provides a *Retrofit Reconnaissance Investigation (RRI)* checklist form, developed by the Center for Watershed Protection (CWP), that can be used to conduct retrofit reconnaissance in your community. This form was developed in conjunction with the CWP's Manual entitled *Urban Stormwater Retrofit Practices* (2007).

Retrofit Reconnaissance Investigation **RRI**

<b>WATERSHED:</b>		<b>SUBWATERSHED:</b>		<b>UNIQUE SITE ID:</b>	
<b>DATE:</b>		<b>ASSESSED BY:</b>		<b>CAMERA ID:</b>	
<b>GPS ID:</b>		<b>LMK ID:</b>		<b>LAT:</b>	
				<b>LONG:</b>	
<b>SITE DESCRIPTION</b>					
Name: _____					
Address: _____					
Ownership: <input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown					
If Public, Government Jurisdiction: <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> DOT <input type="checkbox"/> Other: _____					
Corresponding USSR/USA Field Sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Unique Site ID: _____					
<b>Proposed Retrofit Location:</b>					
<b>Storage</b>			<b>On-Site</b>		
<input type="checkbox"/> Existing Pond	<input type="checkbox"/> Above Roadway Culvert	<input type="checkbox"/> Hotspot Operation	<input type="checkbox"/> Individual Rooftop		
<input type="checkbox"/> Below Outfall	<input type="checkbox"/> In Conveyance System	<input type="checkbox"/> Small Parking Lot	<input type="checkbox"/> Small Impervious Area		
<input type="checkbox"/> In Road ROW	<input type="checkbox"/> Near Large Parking Lot	<input type="checkbox"/> Individual Street	<input type="checkbox"/> Landscape / Hardscape		
<input type="checkbox"/> Other: _____			<input type="checkbox"/> Other: _____		
<b>DRAINAGE AREA TO PROPOSED RETROFIT</b>					
Drainage Area ≈ _____			<b>Drainage Area Land Use:</b>		
Imperviousness ≈ _____ %			<input type="checkbox"/> Residential <input type="checkbox"/> Institutional		
Impervious Area ≈ _____			<input type="checkbox"/> SFH (< 1 ac lots) <input type="checkbox"/> Industrial		
Notes:			<input type="checkbox"/> SFH (> 1 ac lots) <input type="checkbox"/> Transport-Related		
			<input type="checkbox"/> Townhouses <input type="checkbox"/> Park		
			<input type="checkbox"/> Multi-Family <input type="checkbox"/> Undeveloped		
			<input type="checkbox"/> Commercial <input type="checkbox"/> Other: _____		
<b>EXISTING STORMWATER MANAGEMENT</b>					
Existing Stormwater Practice: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible					
If Yes, Describe:					
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance:					
Existing Head Available and Points Where Measured:					

Retrofit Reconnaissance Investigation

**RRI**

**PROPOSED RETROFIT**

**Purpose of Retrofit:**

- Water Quality       Recharge       Channel Protection       Flood Control  
 Demonstration / Education       Repair       Other: \_\_\_\_\_

**Retrofit Volume Computations - Target Storage:**

**Retrofit Volume Computations - Available Storage:**

**Proposed Treatment Option:**

- Extended Detention       Wet Pond       Created Wetland       Bioretention  
 Filtering Practice       Infiltration       Swale       Other: \_\_\_\_\_

**Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:**

**SITE CONSTRAINTS**

**Adjacent Land Use:**

- Residential       Commercial       Institutional  
 Industrial       Transport-Related       Park  
 Undeveloped       Other: \_\_\_\_\_

**Possible Conflicts Due to Adjacent Land Use? \***       Yes       No

**If Yes, Describe:**

**Access:**

- No Constraints  
 Constrained due to  
 Slope       Space  
 Utilities       Tree Impacts  
 Structures       Property Ownership  
 Other: \_\_\_\_\_

**Conflicts with Existing Utilities:**

- None  
 Unknown

**Yes      Possible**

- |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Sewer                    |
| <input type="checkbox"/> | <input type="checkbox"/> | Water                    |
| <input type="checkbox"/> | <input type="checkbox"/> | Gas                      |
| <input type="checkbox"/> | <input type="checkbox"/> | Cable                    |
| <input type="checkbox"/> | <input type="checkbox"/> | Electric                 |
| <input type="checkbox"/> | <input type="checkbox"/> | Electric to Streetlights |
| <input type="checkbox"/> | <input type="checkbox"/> | Overhead Wires           |
| <input type="checkbox"/> | <input type="checkbox"/> | Other: _____             |

**Potential Permitting Factors:**

- |                              |                                   |                                       |
|------------------------------|-----------------------------------|---------------------------------------|
| Dam Safety Permits Necessary | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Impacts to Wetlands          | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Impacts to a Stream          | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Floodplain Fill              | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Impacts to Forests           | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Impacts to Specimen Trees    | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| How many? _____              |                                   |                                       |
| Approx. DBH _____            |                                   |                                       |

**Other factors:** \_\_\_\_\_

**Soils:**

- Soil auger test holes:       Yes       No  
 Evidence of poor infiltration (clays, fines):       Yes       No  
 Evidence of shallow bedrock:       Yes       No  
 Evidence of high water table (gleying, saturation):       Yes       No

Retrofit Reconnaissance Investigation



SKETCH

A large, empty rectangular area with a thin black border, intended for a hand-drawn sketch of the site.

Retrofit Reconnaissance Investigation



**DESIGN OR DELIVERY NOTES**

Large empty rectangular area for design or delivery notes.

**FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT**

- |   |  |
|---|--|
| <input type="checkbox"/> Confirm property ownership             | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area                  | <input type="checkbox"/> Obtain site as-builts                         |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography                    |
| <input type="checkbox"/> Confirm volume computations            | <input type="checkbox"/> Obtain utility mapping                        |
| <input type="checkbox"/> Complete concept sketch                | <input type="checkbox"/> Confirm storm drain invert elevations         |
| <input type="checkbox"/> Other: _____                           | <input type="checkbox"/> Confirm soil types                            |

**INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS**

Large empty rectangular area for initial feasibility and construction considerations.

<b>SITE CANDIDATE FOR FURTHER INVESTIGATION:</b>	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> MAYBE
<b>IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):</b>	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> MAYBE
<b>IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):</b>	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> MAYBE
If YES, TYPE(S): _____			