PERMIT REGULATION

Compliance with this program in no way exempts participating agencies from local, state, and federal permits required by law. In fact, permit compliance is specifically spelled out as a BMP requirement in these *Guidelines*. Merely following permit requirements does not, however, constitute compliance with the Regional Program. To receive coverage under the program, agencies must comply with the *Guidelines*.

Compliance with Washington state fish passage regulations is particularly important for conservation when performing culvert replacement work in stream crossings. Washington State law and regulations require that new or retrofit culverts be designed for fish passage. (RCW 77.55.060; WAC 220-110-070). Culvert installation and replacement under these sections requires the issuance of a Hydraulic Project Approval (HPA) by the Washington Department of Fish and Wildlife (WDFW). All work done under this section will comply with the HPA. To clarify the fish passage criteria defined by WAC 220-110-070, WDFW prepared a design manual entitled "Fish Passage Design at Road Culverts" (the Manual) (WDFW 1999). The Manual was reviewed by the National Marine Fisheries Service, which found that the standards stated in this publication would enable the attainment and maintenance of PFC for fish passage when used for new or retrofit culverts (NMFS memorandum, Assistant Regional Administrator for Hydro Division to Assistant Regional Administrator for Habitat Conservation Division, November 28, 2001). Therefore, the Regional Program incorporates the relevant considerations for the design of new and retrofit culverts stated in the Manual, as well as other fish passage and habitat considerations addressed in the last chapter of the Manual. (As of the date of this publication, the Manual can be viewed on the Internet at http://www.wa.gov/wdfw/hab/engineer/cm/fpdrc.pdf.)

OTHER 4(D) PROGRAM ELEMENTS

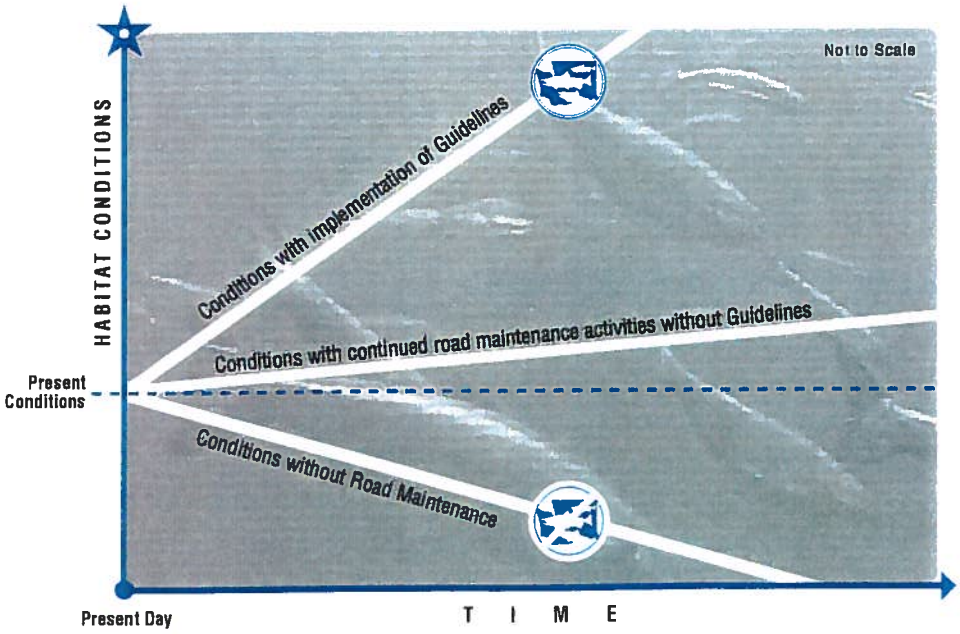
Activities covered by the definition of "maintenance" will be executed according to the ten program elements set forth in these *Regional Road Maintenance ESA Program Guidelines*, as negotiated with the National Marine Fisheries Service and United States Fish and Wildlife Service (the Services). In the event that a jurisdiction or other entity adopts this Regional Road Maintenance ESA Program, and also adopts a development and redevelopment program (if any), the maintenance activities included in these *Regional Road Maintenance ESA Program Guidelines* will not be considered

"development" or "redevelopment." Maintenance activities conducted in compliance with this Regional Road Maintenance ESA Program shall be recognized as mitigation (WAC 197-11-768) which is exempt from development or redevelopment regulations adopted pursuant to the land use or stormwater operational programs or any other future development or redevelopment related programs.

Unlike development or redevelopment, road maintenance mitigates the impacts of the original construction of the road structures, ongoing roadway use, and preservation of the structure. Road maintenance can also lead to habitat improvement. Figure 2 shows the impact of road maintenance on habitat conditions under three scenarios:

1. If road maintenance were to cease altogether, habitat conditions would decline.
2. With current road maintenance practices, habitat conditions would improve slowly.
3. With implementation of the *Guidelines*, habitat conditions would improve at a greater rate.

Impact of Road Maintenance on Habitat Conditions
Figure 2



APPLYING THE *GUIDELINES* TO ROAD MAINTENANCE

This Regional Program applies to roadway maintenance operations, utility maintenance, maintenance of stormwater facilities, and other right-of-way (ROW) structure maintenance within the ROW. Participants in the Regional Program need a clear understanding of what road maintenance is, how it minimizes impacts to habitat, and where it occurs.

DEFINITION OF ROAD MAINTENANCE

Activities that fall under the following definition of "maintenance" are covered under the Regional Program:

> **Maintenance**: Repair and maintenance include activities that:
>
> (a) are conducted on currently serviceable structures, facilities and equipment beyond those that existed previously; and
>
> (b) involve no expansion of or change in use of such structures, facilities, and equipment beyond those that existed previously; and
>
> (c) do not result in significant negative hydrological impact.
>
> Repair and maintenance include those usual activities taken to prevent a decline, lapse, or cessation in the use of structures and systems or to replace dysfunctional facilities. Repair and maintenance also include replacing existing structures with different types of structures, PROVIDED THAT replacement is required to meet current engineering standards or by one or more environmental permits and the functioning characteristics of the original structure are not changed. An example would be replacing a collapsed, fish-blocking round or wooden culvert with a new box culvert under the same span or width of roadway.

As negotiated with the Services, the Regional Program specifies activities that have been determined to be adequately regulated and therefore can limit, reduce or eliminate the prohibition on take of threatened species.

The Regional Program does not apply to construction of new facilities or major expansion of existing facilities.

ROAD MAINTENANCE IS MITIGATION

Road maintenance reduces or eliminates impacts from vehicle use and road wear. Given the critical nature of the transportation system, road maintenance is not optional. It is required for several reasons (WAC 197-11-768 mitigation):

- Safety of the traveling public
- Preservation of infrastructure
- Mitigation for environmental impacts associated with initial construction, preservation, and maintenance during the life of the structure.

The *Guidelines* provide a road maintenance program that achieves the dual goals of operating a transportation system while conserving aquatic habitat conditions. An example of how road maintenance conserves habitat can be found in the road maintenance category "Cleaning Enclosed Drainage Systems." Maintenance activities within the category contribute to the following conservation outcomes:

1. Street sweeping reduces sediments from entering storm drains and waterways.
2. Maintaining and cleaning enclosed drainage systems removes sediments.
3. Maintaining and cleaning oil/water separators reduces pollutants and sediments.
4. Maintaining and cleaning retention/detention facilities and connector ditches removes pollutants and sediments.
5. Repair and restoration of an enclosed drainage system facility ensures storage capacity.
6. Mowing bio-swales and cleaning water quality vaults removes pollutants and sediments.
7. Culvert repair and rehabilitation reduces erosion.
8. Outfall maintenance reduces erosion.

Each maintenance category within the *Guidelines* has activities that contribute to the conservation outcomes listed for that category.

Right-of-Way Structure

Road maintenance activities occur within the right-of-way (ROW). ROW is the area of land dedicated for public use or secured by the public for purposes of ingress and egress to abutting property and other public purposes. ROW includes area maintained by public agencies through prescriptive rights. ROW structures include planned, designed, engineered and constructed features that together encompass many built systems. Typical ROW structures include, but are not limited to, the following:

- Open drainage system/sediment transport system.
- Closed drainage system/sediment transport system.
- Retention/detention/wetland systems/sediment transport system.
- Road surface/drainage and sediment transport system.
- Utilities.
- Stream system.
- The ROW itself, width, air space above- and underground.

An understanding of the ROW, its structures, and its relationship to water quality and habitat is critical to the successful implementation of the Regional Program.

Examples of systems and structures within the ROW include the following: roadway, drainage, sediment containment, retention/detention, water, sewer, gas, electrical, street lighting, traffic loops, and traffic signals.

The aboveground surface area of the ROW structure consists of the roadway shoulder, cuts, fills, ditches, channels, dikes, bridges, retention/detention, swales and constructed wetlands (intentional and incidental). The road surface directs water from the road, across the gravel or grass shoulder, across the inslope of the ditch, through the ditch to a swale or retention/detention area and then to an outlet.

The ROW structure also includes a sediment transport (stormwater) system. The function of this system is to remove sediment before it outfalls to a watercourse or stream. The roadway drainage system has built-in stormwater retention capacity. The road surface traps large amounts of fine material, where it can be removed by sweeping operations, thereby preventing sedimentation in watercourses or streams. Gravel or grass shoulders filter and trap sediments. Ditches hold and trap sediments frequently acting as long, narrow retention/detention ponds. Stormwater retention/detention facilities

and constructed wetlands hold and trap large amounts of sediment, reducing downstream sedimentation. The open drainage system is designed to trap sediments. Road maintenance removes these sediments before they pass through the system to a stream or watercourse.

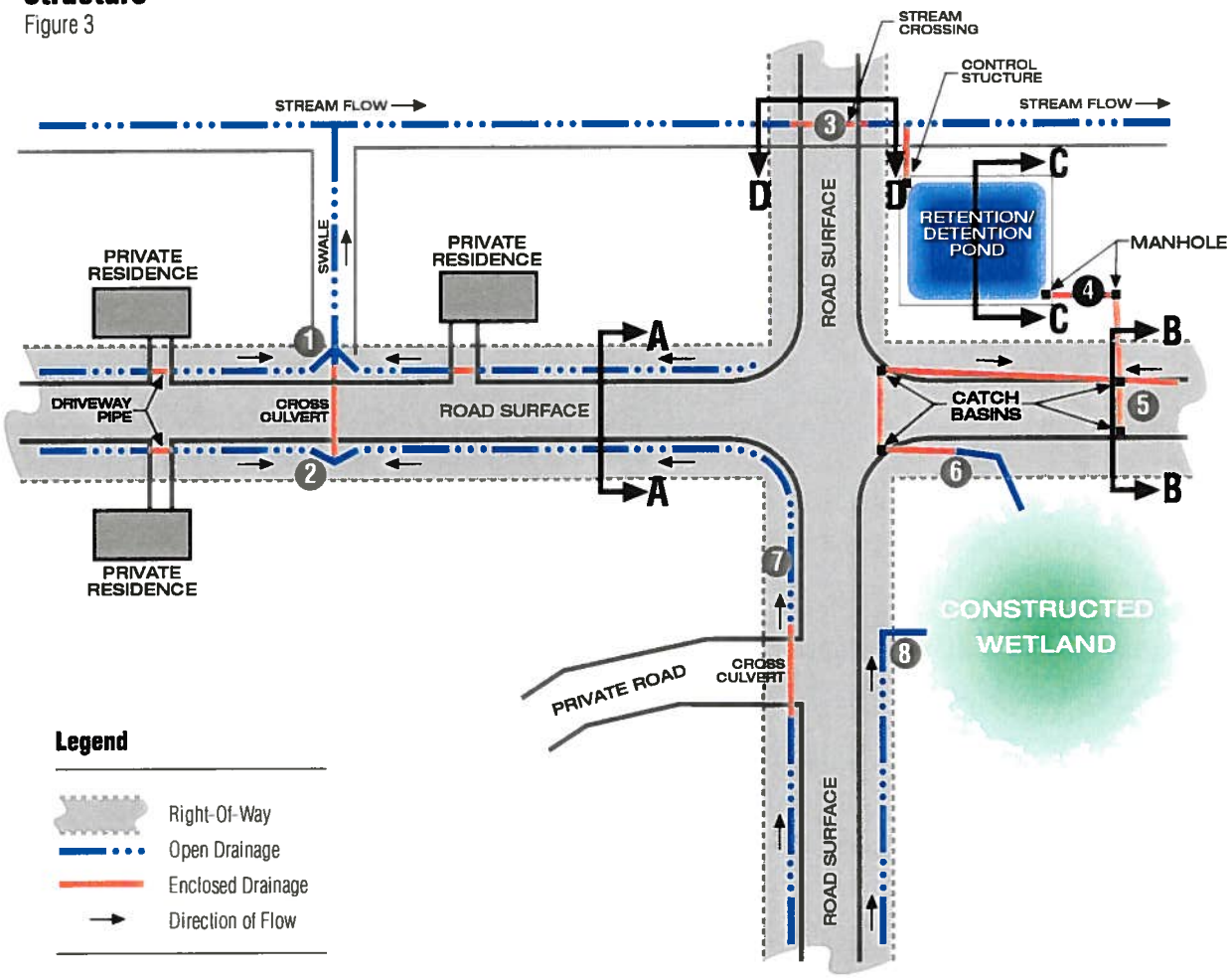
Like an open drainage system, an enclosed drainage system transports sediment to built-in trapping and holding areas where the sediment can be removed before it reaches a stream or watercourse. An enclosed drainage system starts with the road surface or structure and directs water and sediment to inlets, catch basins, manholes, vaults, pipes, and retention/detention facilities. Inlets to the enclosed drainage system both limit the size of sediments and hold sediments. Catch basins, manholes, vaults, pipes, and retention/detention/constructed wetland facilities trap large quantities of sediments so they can be removed before they enter the outflow.

Road and utility maintenance activities occur within the road ROW structure. Figures 3-7 provide typical illustrations of the ROW structure, including the following:

- Figure 3: Typical ROW Structure
- Figure 4: Section A-A: Open Drainage System
- Figure 5: Section B-B: Enclosed Drainage System
- Figure 6: Section C-C: Retention/Detention Facility
- Figure 7: Section D-D: Stream Crossing Road.

Typical Row Structure

Figure 3



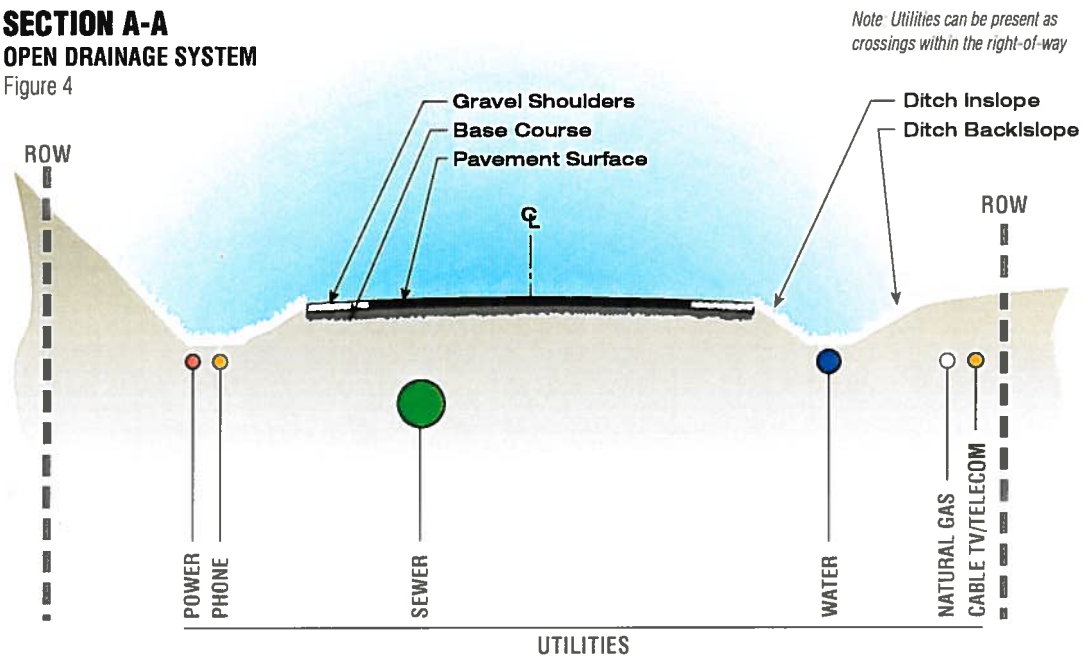
Legend

- Right-Of-Way
- Open Drainage
- Enclosed Drainage
- Direction of Flow

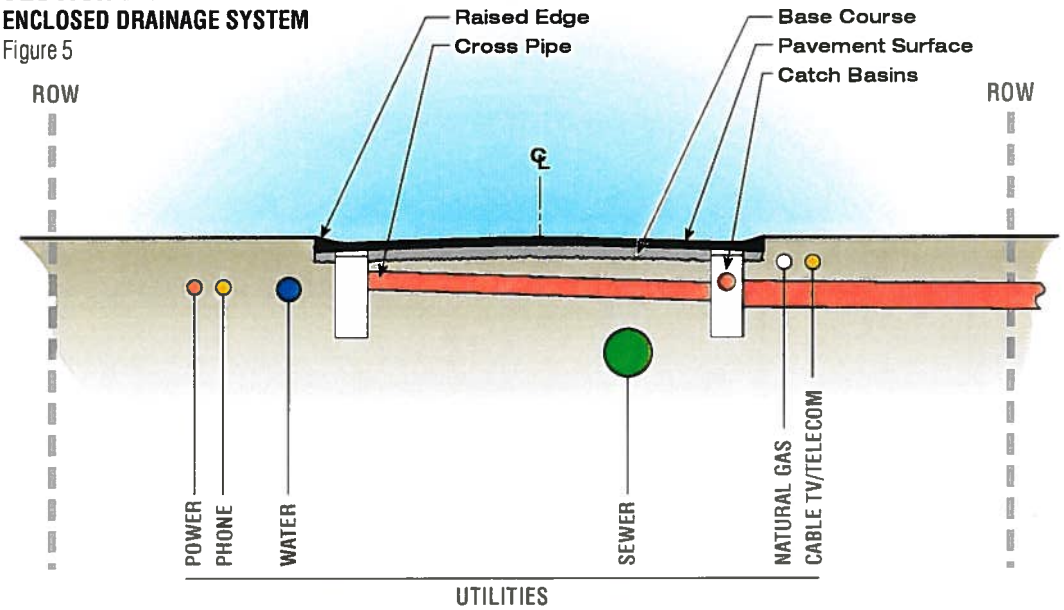
Probable BMP Locations

1. Where water leaves the ROW
2. Prior to water crossing the roadway
3. Upstream and downstream of stream crossing
4. Prior to water entering the detention facility
5. Cleaning of structures and oil water separators
6. Prior to water entering the enclosed system
7. Along ditches to collect siltation
8. Wherever water leaves ROW into sensitive areas

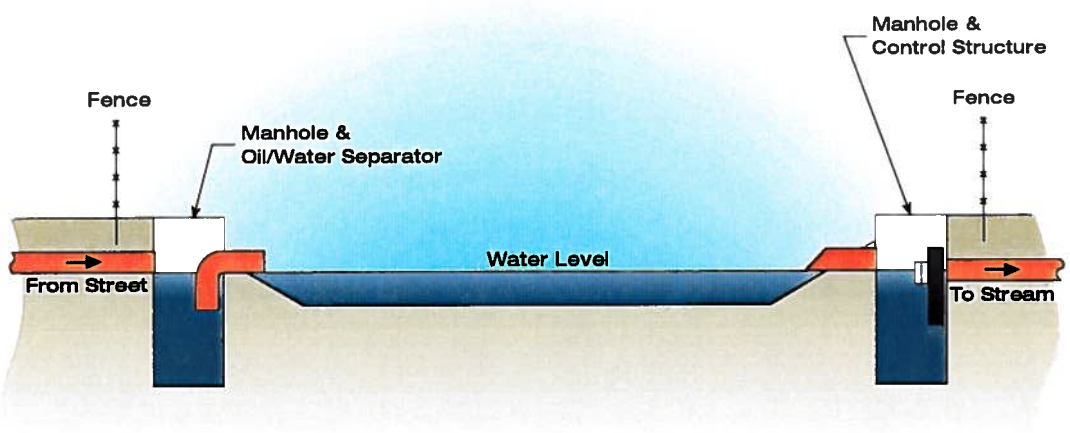
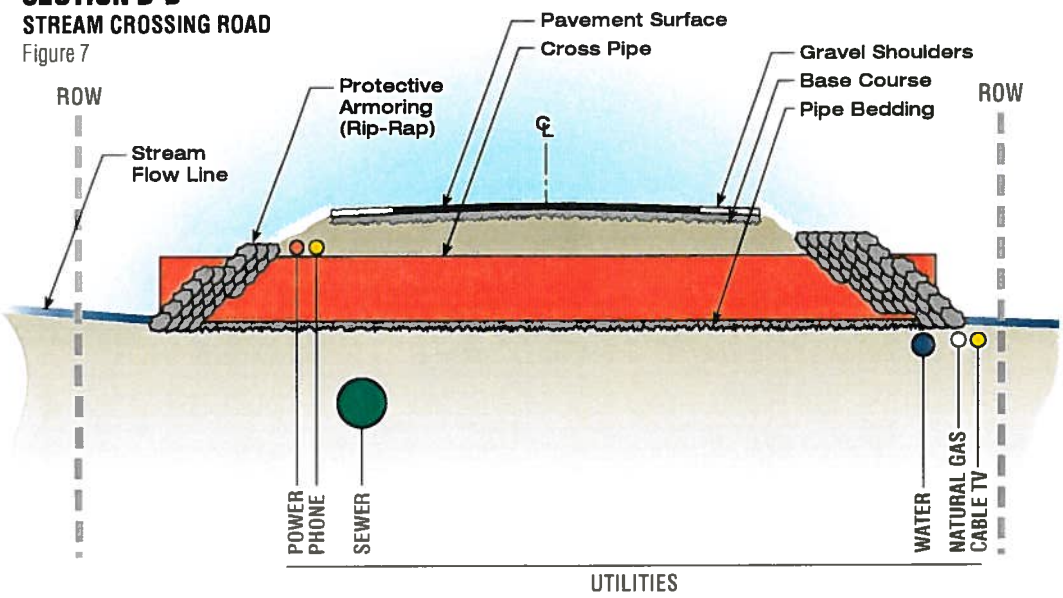
SECTION A-A
OPEN DRAINAGE SYSTEM
Figure 4



SECTION B-B
ENCLOSED DRAINAGE SYSTEM
Figure 5



SECTION C-C
RETENTION/DETENTION FACILITY
Figure 6



SECTION D-D
STREAM CROSSING ROAD
Figure 7