# 3.15 SEQUIM BAY AND DRAINAGES RECOMMENDATIONS

Section 3.4 contains recommendations for instream flows and Section 3.3 contains other recommendations for small rural and urban streams, habitat restoration, salmon recovery, and related environments (e.g., riparian corridors, wetlands, estuaries) that are intended to be considered for all WRIA 18 streams and rivers. Sections 3.1 and 3.2 contain water quantity and water quality recommendations that also apply to all WRIA 18 subbasins.

## 3.15.1 Johnson Creek (WRIA# 17-0301)

**Issue:** Johnson Creek currently experiences elevated fecal coliform levels, resulting in shellfish closure. The system also has a number of culverted channel sites, contributing to erosion and possible culvert blockages.

### Existing Conditions and Current Actions

The Johnson Creek watershed is the third largest Sequim Bay subwatershed and has been significantly altered from its historic condition. Land use practices, residential and other development, integration into the regional irrigation system, and channelization and armoring of the stream have resulted in significant sediment, fecal coliform, channel instability, riparian and floodplain degradation, and other impacts. Since 1994, it has been on the 303(d) list for elevated fecal coliform, which is likely to derive from domestic and wild animals, irrigation-borne, and septic sources.

### Desired Conditions and Outcomes

- Creek meets water quality standards
- Shellfish harvest area upgraded from Prohibited to Approved
- Stabilized banks; planted riparian corridor

### Recommendations

A. Water Quality:

1. Eliminate livestock access; install farm BMPs, cost share with property owners.
2. Repair/replace septics; implement septic Operation and Maintenance program.
3. Ensure irrigation tailwater and irrigation infrastructure does not degrade creek water quality.
4. Manage stormwater to avoid water quality and quantity impacts to aquatic life in the watershed (see Stormwater Recommendations, Section 3.5).

B. Habitat:

1. Evaluate, prioritize, and treat erosion problems in the watershed.
2. Re-establish healthy, native riparian vegetation.
3. Inventory culverts; maintain, and replace where needed to provide for fish passage or to resolve sediment and/or flow problems.

4. Establish a riparian zone in the lower watershed adjacent to the trailer court.[1]

### 3.15.2 Sequim Bay State Park Creek

**Issues:** The Sequim Bay State Park septic system is seasonally overloaded and may fail, creating a potential public health problem.

**Existing Conditions and Current Actions**
During the recreational season the Sequim Bay State Park septic system is overloaded and at risk of failure. The Park has received permission for an exception under GMA to connect to the City of Sequim sewage treatment system. DOH monitors marine water and no current water quality standards are exceeded at the Park. The creek at the Park is not considered an anadromous stream; however there is no data on this creek's biology or water quality. Shellfish harvest is closed for two weeks during the late summer early fall when many boats use the park.

**Desired Conditions and Outcomes**
- Creek meets water quality standards
- Shellfish harvest area remains open, with no further degradation of shellfish harvest

**Recommendations**
A. Water Quality:

Fund a permanent solution to sewage disposal at Park to enable connection of the Park to the City of Sequim sewage system, subject to GMA provisions.

B. Habitat:

No new stream-specific recommendations were developed.

### 3.15.3 Dean Creek (WRIA# 17-0293)

**Issue:** Dean Creek is in a dysfunctional condition, causing severe flooding. There is a likelihood of water quality violations due to current and historic land use activities. Alterations to the channel in several reaches, conducted as flooding remedies, have destroyed in-stream fish habitat.

**Existing Conditions and Current Actions**
Dean Creek is a small, occasionally dry stream that enters South Sequim Bay in its southwest corner. The creek, especially in the lower reaches, has been culverted in various locations. It also experiences episodes of significant sedimentation, mostly arising from the lingering impacts of past road and land clearing activities. The sediment aggradation causes the stream to go subsurface in some places—a characteristic that may not be consistent with its historic, natural condition. Dean Creek is being incorporated into the overall Jimmycomelately-Lower Sequim Bay Estuary Restoration Project, at least as far upstream as the Hwy. 101 crossing.

[1] From WRIA 17 Limiting Factors Analysis

**Desired Conditions and Outcome**

- Functional creek/estuary
- High quality fish habitat
- Meets or exceeds water quality standards that support its beneficial uses

**Recommendations**

A. Water Quality:

1. Implement Jimmycomelately-Lower Sequim Bay Estuary Restoration Plan
2. Manage stormwater to avoid water quality and quantity impacts to aquatic life in the watershed
3. Manage forestry/DNR property to ensure no water quality problems in the creek

B. Habitat:

1. Implement the Jimmycomelately-Lower Sequim Bay Estuary Restoration Plan (see Section 3.15.4 (B)).
2. Monitor fish presence; submit stream type upgrade if warranted (LFA).
3. Replace culvert at Old Blyn Highway (LFA).
4. Submit stream type upgrades with appropriate agencies to reflect fish passage—at least as far upstream as the BPA power lines.[2]

### 3.15.4 Jimmycomelately Creek (WRIA# 17-0285)

**Issue:** Jimmycomelately Creek and its estuary have been significantly altered over time, causing habitat destruction, water quality problems and severe flooding.

**Existing Conditions and Current Actions**

Jimmycomelately Creek, though heavily altered in its past, is undergoing an extensive restoration that is projected to be completed by 2006 (though maturation of revegetated areas and return of anadromous stocks will evolve for years thereafter). This project will eliminate and/or vastly improve many of the current problematic conditions.

**Desired Conditions and Outcomes**

- Creek meets water quality standards
- Shellfish harvest area remains approved
- Salt water intrusion prevented
- Restored creek and estuary function
- Restored summer chum
- High quality habitat is widely available for fish and wildlife
- An intact, functional wildlife corridor is maintained

[2] From WRIA 17 Limiting Factors Analysis

**Recommendations**

A. Water Quality:

1. Implement Jimmycomelately-Lower Sequim Bay Estuary Restoration Plan.
2. Manage stormwater to avoid water quality and quantity impacts to aquatic life in the watershed.
3. Eliminate livestock access; install farm BMPs, cost share with property owners, (LFA).
4. Repair/replace septics; implement O&M.
5. Seek alternative techniques for sewage treatment and disposal.
6. For saltwater intrusion prevention remedies see groundwater recommendations, Section 3.1.4 (B).

B. Habitat:

1. Implement Jimmycomelately-Lower Sequim Bay Estuary Restoration Plan[3]
    a. Remove pilings and contaminated sediment from the estuary
    b. Remove log yard fill
    c. Remove log yard road
    d. Turn the abandoned trailer park and infrastructure into a salt marsh
    e. Use WDOT mitigation funds to construct tidal channels
    f. Remove the county road (Old Blyn Highway)
    g. Move the creek channel to the west to its historic location, construct new highway bridge, and plant the riparian zone
    h. Remove the delta cone accretion of the old channel to regain intertidal habitat
    i. Remove trestle over the tributary that carries casino stormwater and replace with a pedestrian bridge (the trestle still leaks creosote)
    j. Underplant riparian zone (below the cascade) with conifer
    k. Conduct culvert assessment
    l. Install livestock exclusion fencing, coupled with riparian planting, in the upper watershed
2. Continue and fund broodstock program (DQ)
3. Control erosion in watershed

[3] The following items of the restoration plan previously appeared as WRIA 17 LFA recommendations.

### 3.15.5 No Name Creek (enters Bay at Tribal Administration Building)

**Issues:** Stormwater periodically creates water quality and flooding concerns. Excessive sediment is found in the system due to current and historic land use practices.

**Existing Conditions and Current Actions**
No Name Creek is a small creek originating in the hills above Chicken Coop Creek Road. It runs through a culvert beneath Highway 101 and Old Blyn Highway and is channelized along its drainage route to Sequim Bay. The creek receives untreated storm water from roads and parking areas. Its headwaters were clearcut in the 1990s and, since that time, sediment has begun to build up near its mouth. In its current condition, this creek does not likely support fish species.

**Desired Conditions and Outcomes**
- Creek meets water quality standards
- Sedimentation controlled

**Recommendations**
A. Water Quality:

1. Control stormwater in watershed
2. Control erosion in watershed

B. Habitat:

1. Improve culverts
2. Control erosion in watershed

### 3.15.6 Chicken Coop Creek (WRIA# 17-0278)

**Issue:** Chicken Coop Creek experiences excess sedimentation and sporadic water quality violations. There are several fish passage blockages as well as degraded fish and wildlife habitat.

**Existing Conditions and Current Actions**
Chicken Coop Creek is the second largest watershed in the Sequim Bay basin. It suffers from the effects of numerous culverts throughout the watershed and has experienced various episodes of excessive sediment. These sediments may contribute to the occasionally intermittent presence of surface flow—a condition that has been identified as potentially the most significant limiting factor for restoration of anadromous stocks.

**Desired Conditions and Outcomes**
- Creek meets water quality standards
- Shellfish harvest area continues to be classified as Approved
- Healthy fish and wildlife habitat; sediment controlled

**Recommendations**

A. Water Quality:

1. Control sedimentation in watershed
2. Livestock exclusion fencing, BMPs, continue costshare programs, support Conservation District
3. Manage stormwater to avoid water quality and quantity impacts to aquatic life in the watershed
4. Repair/replace septic systems, implement O&M

B. Habitat:

1. Repair culverts under E. Sequim Bay Rd, Old Blyn Highway, Highway 101, Chicken Coop Road (LFA)
2. Add LWD (LFA)
3. Plant riparian zone with native species, in order to provide cover and future large woody debris recruitment (LFA)

**Limiting Factors Analysis (LFA) Recommendations**

- Repair the culverts under East Sequim Bay Road, Old Blyn Highway, US 101, and Chicken Coop Road
- Add large woody debris
- Plant a riparian zone

*Note:* The LFA recommendations are provided here for information. LFA recommendations are not adopted as such in the watershed plan, though it is recognized that updates are needed in some areas. Some conflicts may exist between the LFA and the watershed plan; where conflicts exist, these would need to be reconciled by the involved jurisdictions on a case-by-case basis.

## 3.15.7 Sequim Bay Estuarine Wetlands

### Washington Harbor

**Issues:** This estuarine wetland, at the mouth of Bell Creek, is classified Prohibited for shellfish harvest. The Sequim Sewage Treatment Plant outfall pipe culvert blocks habitat and the area has a history of *Spartina* invasion.

**Existing Conditions and Current Actions**

Washington Harbor is the tidal estuary at the mouth of Bell Creek. It is well protected by Gibson Spit on the east. It is internationally recognized as an important estuary for migratory waterfowl and other wildlife. An outfall pipe from the City of Sequim Sewage Treatment Plant (SSTP) blocks the northern portion of the estuary, with two culverts providing minimal tidal exchange. The City of Sequim upgraded its sewage treatment plant to produce Class-A water and is working toward full wastewater reuse. The owner of the estuary has removed some dikes along the estuary's western edge to improve estuarine habitat.

**Desired Conditions and Outcomes**

- Shellfish harvest classification upgraded to Conditional or Approved
- Habitat in northern portion of estuary restored to support full range of naturally-occurring shellfish, forage fish, other invertebrates, estuarine vegetation, and associated terrestrial wildlife

**Recommendations**

A. Water Quality:

1. Continue to seek ways to upgrade shellfish harvest classification

B. Habitat:

1. Improve tidal exchange between the northern and southern portions of the estuary currently constricted by the two culverts under the Sequim Sewage Treatment Plant outfall.
2. Regularly monitor northern part of estuary to ensure *Spartina* has been fully removed

**Wayne Wetland (on West Sequim Bay Road)**

**Issues:** Upland development poses a potential threat to the functioning of this wetland. It is also impacted by the culvert under W. Sequim Bay Road, which has altered the flow regime of the wetland.

**Existing Conditions and Current Actions**

This wetland is undeveloped on three sides, but it is blocked from its connection to Sequim Bay by West Sequim Bay Road. One narrow culvert allows tidal exchange. A residential development is being proposed within the subbasin.

**Desired Conditions and Outcomes**

- Water quality is maintained throughout any watershed development
- Healthy fish and wildlife habitat

**Recommendations**

A. Water Quality:

1. Ensure upland development does not impact wetland
2. Control stormwater

B. Habitat:

Improve culvert under W. Sequim Bay Road

## Blyn Wetlands (aggregate mouth of Dean, JCL, no-name and Chicken Coop creeks)

**Issues:** Sedimentation from existing land uses in the area, as well as the threat posed by further upland development pose current and future water quality impacts as well as causing dysfunctional fish and wildlife habitat.

### Existing Conditions and Current Actions

This estuarine system has hydrology input from Dean, Jimmycomelately, No-Name and Chicken Coop creeks, along with several storm water drainages. It is internationally recognized as an important area for migratory waterfowl and shorebirds, and it provides habitat for mammals, juvenile salmon, shellfish and invertebrates. It is severely impacted by human-made structures, which are slated for removal as part of a large-scale restoration project on Jimmycomelately Creek and its estuary. These structures include roads, creosote pilings and trestles. The uplands are being zoned for rural center and are gradually being developed for administration and commercial/recreational uses.

### Desired Conditions and Outcomes

- Shellfish harvest areas remain Approved
- Functional and healthy fish and wildlife habitat

### Recommendations

A. Water Quality:

Ensure upland development does not impact wetlands

B. Habitat:

Implement Jimmycomelately-Lower Sequim Bay Restoration Project

## Paradise Cove

**Issues:** This wetland has been compromised by past land use practices, causing the loss of extent and quality of valuable fish and wildlife habitat.

### Existing Conditions and Current Actions

Paradise Cove is an estuary in the northeastern corner of Sequim Bay and is protected by Travis Spit and a steep cobble beach. There are productive clam beds inside the cove. Currently, the cove is not heavily developed; there are two docks and several houses along a 15-foot bluff above the beach. There are indications of excessive algae in portions of the cove, implying that excess nutrients enter the water.

### Desired Conditions and Outcomes

- Shellfish harvest area is not diminished and remains open
- Functional and healthy fish and wildlife habitat

### Recommendations

A. Water Quality:

Ensure upland development does not impact wetland

B. Habitat:

Ensure upland development does not impact wetland

### 3.15.8 Sequim Bay Marine Shoreline and Waters

**Issues:** Shellfish harvest areas along much of the Sequim Bay shoreline are threatened from upland development and land use practices and they experience occasional water quality violations. Various shoreline encroachments (docks, etc.), bulkheading, and vegetation removal have caused significant loss of habitat.

**Existing Conditions and Current Actions**
This is a newly-identified focus, not previously treated in the LFA or other studies. No specific information is available for these particular shoreline areas.

**Desired Conditions and Outcomes**

- Marine waters meet Clean Water Act and shellfish harvest standards.
- Healthy fish and wildlife habitat, including forage fish spawning beaches, eelgrass, and shellfish beds.

**Recommendations**

A. Water Quality:

1. Repair/replace septics; seek new solutions for sewage disposal, implement O&M.
2. Manage stormwater to avoid water quality and quantity impacts to aquatic life in the watershed.
3. Prevent animal waste (farm and pet) from entering marine waters.
4. Seek remedies to upgrade all shellfish harvest areas currently classified “Conditional” or “Prohibited” to “Approved”.
5. Remove creosote structures; prevent use of creosote for any new development.
6. Manage John Wayne Marina to prevent pollution form boats, pump-out station, septic system and parking lots.
7. Continue to manage City of Sequim Wastewater Treatment and Reclaimed Water plant to prevent water pollution.
8. Inventory shoreline land use and habitat changes.
9. Encourage water reuse and reclamation (see Section 3.1.10); consider East WRIA 18 regional sewer system.

B. Habitat:

1. Prevent encroachments onto tidelands (docks and floats; fill).
2. Enforce development control to prevent human caused erosion.

3. Remove bulkheads; replace with soft bank armoring.
4. Protect eelgrass beds, forage fish spawning areas, and other high value habitats from encroachments and impacts from development.
5. Continue acquisition and restoration to achieve the goals of the Pacific Coast Joint Venture Strategic Plan (for migratory waterfowl).

**Limiting Factors Analysis (LFA) Recommendations**

- Remove creosoted pilings and contaminated sediments from barge work
- Remove abandoned log yard fill to restore estuary function of both Dean and Jimmycomelately Creeks
- Remove log yard road
- Reclaimed trailer park could become salt marsh habitat, although there is no evidence of an historic salt marsh
- Reconnect tidal channels of Jimmycomelately Creek
- Remove the county road
- Move Jimmycomelately Creek channel to the west to its historic location
- Remove the delta cone accretion of the old channel (Jimmycomelately) just low enough to be intertidal
- Put in a new bridge with three spans over the newly configured JimmycomelatelyCreek
- Remove the railroad trestle over the tributary to Jimmycomelately that carries stormwater from the casino and replace the trestle with a walking bridge
- Add sinuosity to Dean Creek below highway 101
- Replace a culvert between two spits that truncates a valuable salt marsh south of Pitship Point with a bridge

*Note:* The LFA recommendations are provided here for information. LFA recommendations are not adopted as such in the watershed plan, though it is recognized that updates are needed in some areas. Some conflicts may exist between the LFA and the watershed plan; where conflicts exist, these would need to be reconciled by the involved jurisdictions on a case-by-case basis.