

APPENDIX C

SHORELINE MAPS INCLUDING PINNIPED HAULOUT SITES

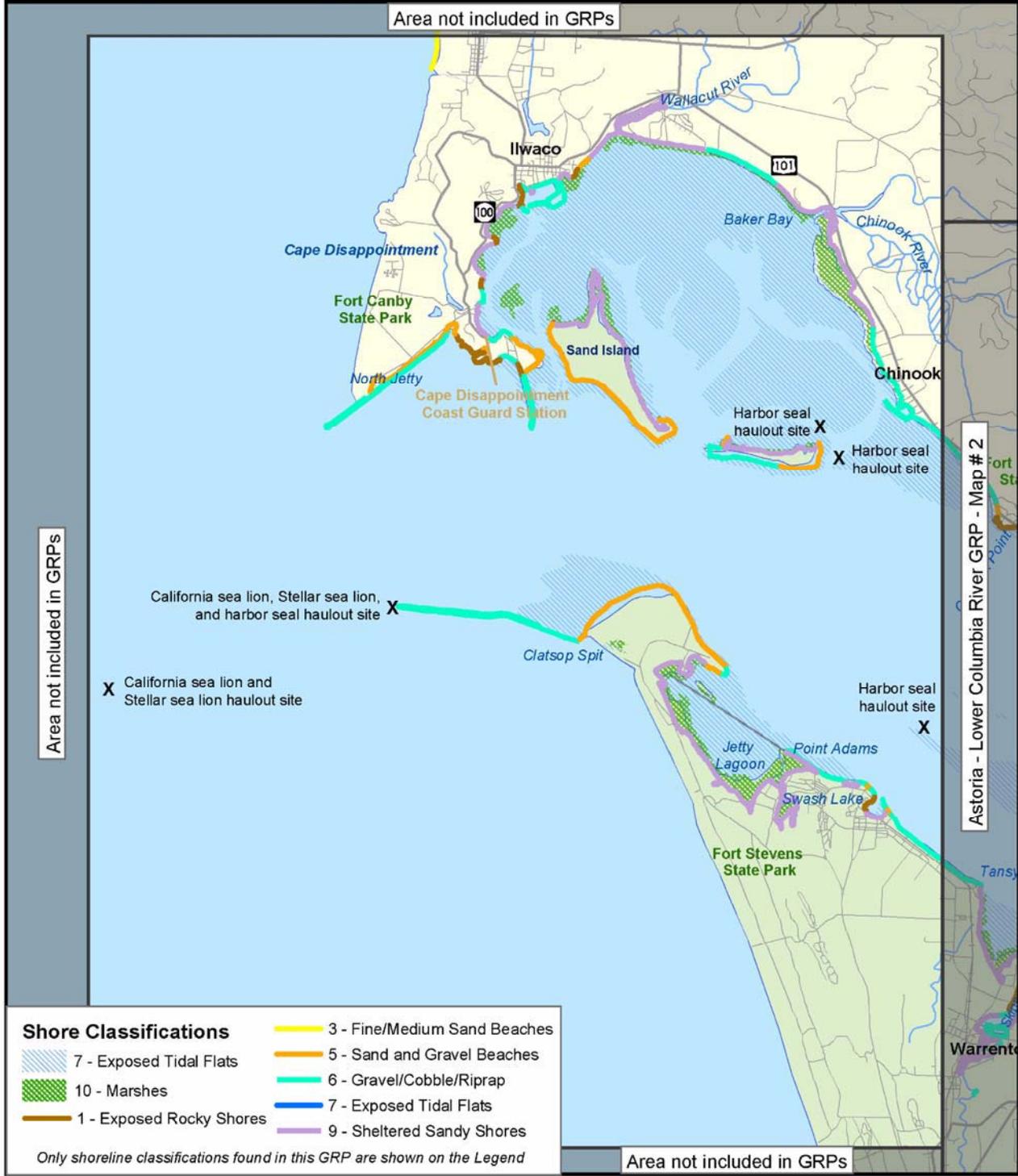
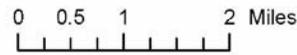
Ilwaco MAP

Shoreline Classifications

November, 2003

Lower Columbia River GRP

MAP # 1



Area not included in GRPs

Astoria - Lower Columbia River GRP - Map # 2

Shore Classifications

| | |
|--|------------------------------|
| | 3 - Fine/Medium Sand Beaches |
| | 5 - Sand and Gravel Beaches |
| | 6 - Gravel/Cobble/Riprap |
| | 7 - Exposed Tidal Flats |
| | 9 - Sheltered Sandy Shores |
| | 10 - Marshes |
| | 7 - Exposed Tidal Flats |
| | 1 - Exposed Rocky Shores |

Only shoreline classifications found in this GRP are shown on the Legend

Area not included in GRPs



Appendix C Shoreline Maps Including Pinniped Haulout Sites (Map 1 of 4)

Sources: Lower Columbia River Geographic Response Plan (GRP). Washington State Department of Ecology Publication No. 95-258. Revised November 2003
 Atlas of Seal and Sea Lion Haulout Sites in Washington. Jeffries, S.J., P.J. Gearin, H.R. Huber, D.L. Saul, and D.A. Pruett. Washington Department of Fish and Wildlife, Wildlife Science Division, Olympia, Washington. 2000.

Astoria MAP
Shoreline Classifications

Lower Columbia River GRP
MAP # 2

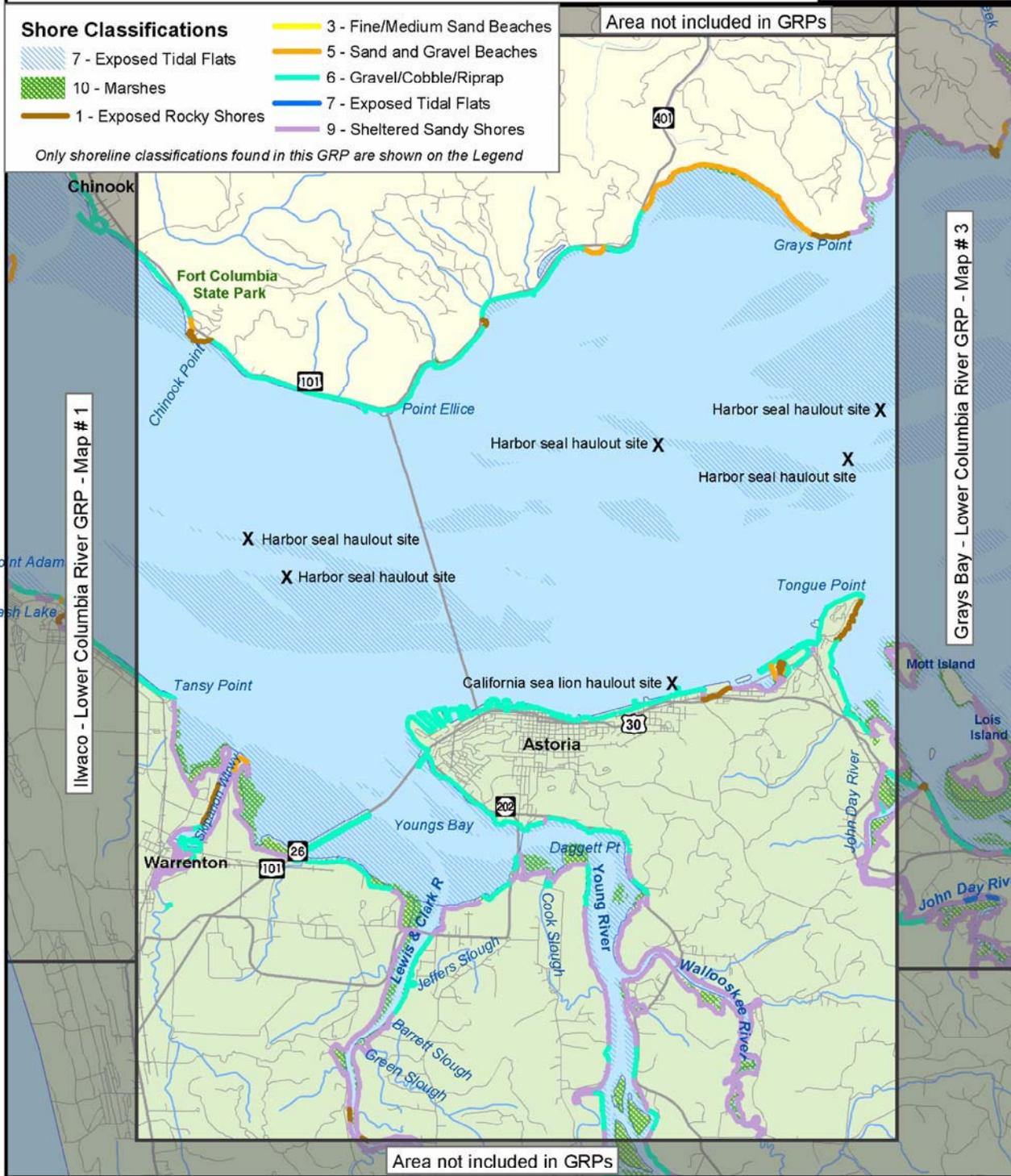
November, 2003



- Shore Classifications**
- 3 - Fine/Medium Sand Beaches
 - 5 - Sand and Gravel Beaches
 - 6 - Gravel/Cobble/Riprap
 - 7 - Exposed Tidal Flats
 - 9 - Sheltered Sandy Shores
 - 7 - Exposed Tidal Flats
 - 10 - Marshes
 - 1 - Exposed Rocky Shores

Only shoreline classifications found in this GRP are shown on the Legend

Area not included in GRPs



Ilwaco - Lower Columbia River GRP - Map # 1

Grays Bay - Lower Columbia River GRP - Map # 3

Area not included in GRPs



Appendix C
Shoreline Maps Including Pinniped Haulout Sites (Map 2 of 4)

Sources: Lower Columbia River Geographic Response Plan (GRP). Washington State Department of Ecology Publication No. 95-258. Revised November 2003

Atlas of Seal and Sea Lion Haulout Sites in Washington. Jeffries, S.J., P.J. Gearin, H.R. Huber, D.L. Saul, and D.A. Pruett. Washington Department of Fish and Wildlife, Wildlife Science Division, Olympia, Washington. 2000.

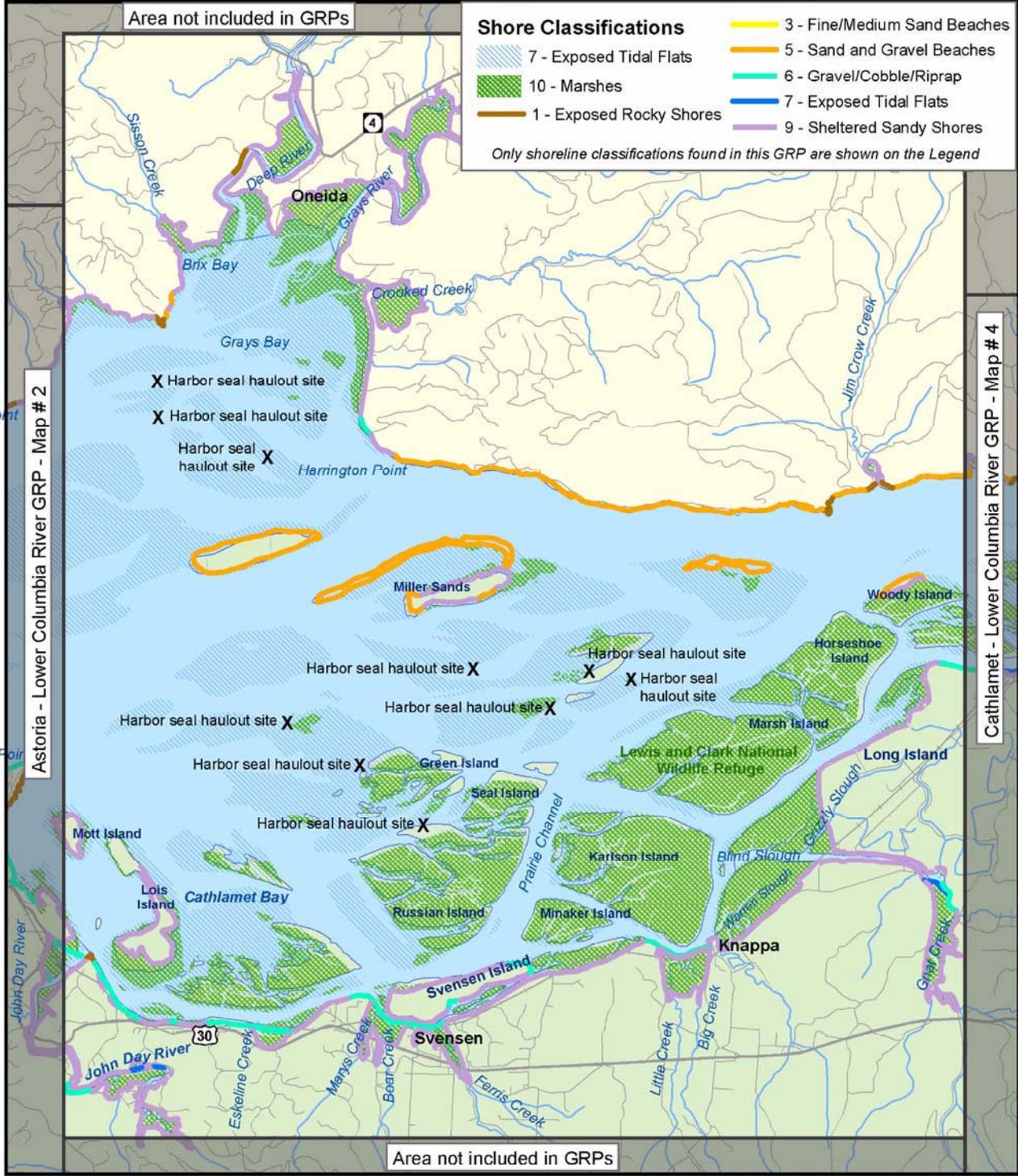
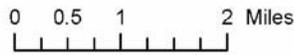
Grays Bay MAP

Shoreline Classifications

November, 2003

Lower Columbia River GRP

MAP # 3



Shore Classifications

- 7 - Exposed Tidal Flats
 - 10 - Marshes
 - 1 - Exposed Rocky Shores
 - 3 - Fine/Medium Sand Beaches
 - 5 - Sand and Gravel Beaches
 - 6 - Gravel/Cobble/Riprap
 - 7 - Exposed Tidal Flats
 - 9 - Sheltered Sandy Shores
- Only shoreline classifications found in this GRP are shown on the Legend*

Astoria - Lower Columbia River GRP - Map # 2

Cathlamet - Lower Columbia River GRP - Map # 4



Appendix C Shoreline Maps Including Pinniped Haulout Sites (Map 3 of 4)

Sources: Lower Columbia River Geographic Response Plan (GRP). Washington State Department of Ecology Publication No. 95-258. Revised November 2003
 Atlas of Seal and Sea Lion Haulout Sites in Washington. Jeffries, S.J., P.J. Gearin, H.R. Huber, D.L. Saul, and D.A. Pruett. Washington Department of Fish and Wildlife, Wildlife Science Division, Olympia, Washington. 2000.

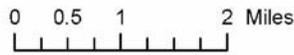
Cathlamet MAP

Shoreline Classifications

November, 2003

Lower Columbia River GRP

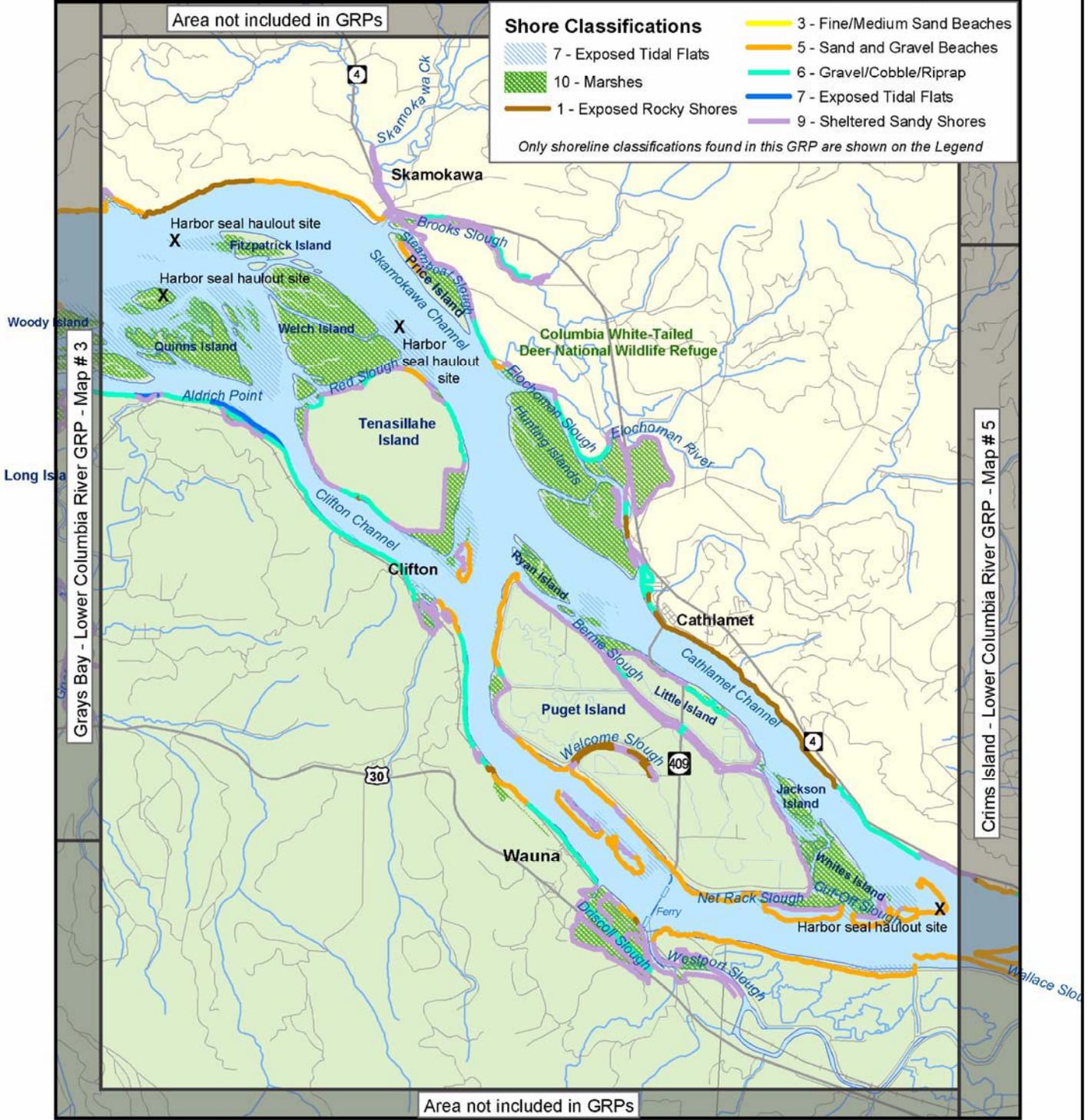
MAP # 4



Area not included in GRPs

Shore Classifications

- 7 - Exposed Tidal Flats
 - 10 - Marshes
 - 1 - Exposed Rocky Shores
 - 3 - Fine/Medium Sand Beaches
 - 5 - Sand and Gravel Beaches
 - 6 - Gravel/Cobble/Riprap
 - 7 - Exposed Tidal Flats
 - 9 - Sheltered Sandy Shores
- Only shoreline classifications found in this GRP are shown on the Legend*



Grays Bay - Lower Columbia River GRP - Map # 3

Crims Island - Lower Columbia River GRP - Map # 5

Area not included in GRPs



Appendix C

Shoreline Maps Including Pinniped Haulout Sites (Map 4 of 4)

Sources: Lower Columbia River Geographic Response Plan (GRP). Washington State Department of Ecology Publication No. 95-258. Revised November 2003
 Atlas of Seal and Sea Lion Haulout Sites in Washington. Jeffries, S.J., P.J. Gearin, H.R. Huber, D.L. Saul, and D.A. Pruett. Washington Department of Fish and Wildlife, Wildlife Science Division, Olympia, Washington. 2000.