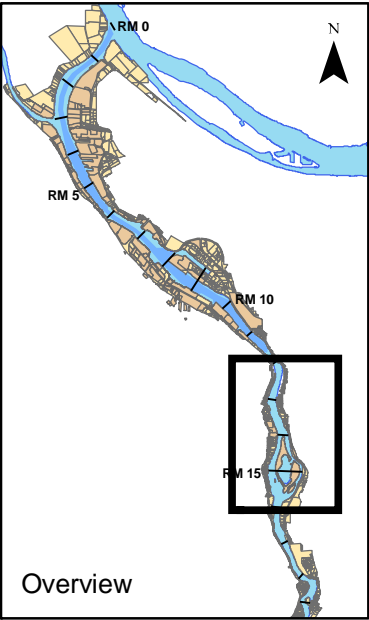
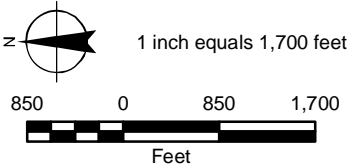


Figure 6-3a  
Total Butyltin Concentrations  
in Sediment Map  
  
Downtown Portland  
Sediment Characterization  
Field and Data Report  
  
River Mile 12 to 16  
  
Willamette River  
Portland, Oregon

- LEGEND**
- DPSC or LWG Core Location
  - DPSC or LWG Grab Location
  - PP&R Core Location
  - DEQ Cleanup Site (ECSI#/Name)
  - City Outfall
  - Other Outfall
  - Stormwater Pipeline
  - Abandoned Stormwater Pipeline
  - PGE Station L Sediment Cap, Approximate
  - Zidell - DEQ Sediment Management Area
  - River Mile (RM)



**MAP NOTES:**

Projection: Oregon State Plane North  
Datum: North American Datum of 1983  
Date: January 2, 2009  
1. The locations of all features shown are approximate.  
2. DPSC = Downtown Portland Sediment Characterization.  
3. PP&R = Portland Parks & Recreation.  
4. LWG = Lower Willamette Group.  
5. ECSI = Environmental Cleanup Site Information (information current as of February 19, 2008).  
6. LWG core and grab information obtained from LWG SCRA Combo as of August 28, 2008.  
7. PGE Station L sediment cap boundary approximated based on PGE Station L Phase II Final Report (CH2M-Hill, 1991).

8. Zidell-DEQ Sediment Management Area (SMA) boundary provided by Maul, Foster, Alongi (November 3, 2008).  
9. Analyte percentiles calculated based on the combined DPSC, PP&R, and LWG data from RM 12 to RM 16.  
10. Cores with multiple sections analyzed depict percentiles for the highest concentrations detected.  
11. Samples with multiple values, such as field QC splits and reanalyzed samples, were averaged as described in the Field and Data Report.  
12. Outfall data obtained from the LWG's GIS shapefile entitled "Outfall\_Oct\_08.shp". Original source of information provided by the City of Portland in June of 2005. Stormwater pipeline data were provided to GSI Water Solutions by the City of Portland in February of 2008. As data were compiled from a variety of sources, no warranty is made as to the accuracy, reliability, or completeness of these data. Conveyance system information can be accessed at [www.portlandmaps.com](http://www.portlandmaps.com).

**Concentrations of Total Butyltins**

- 0 - 50th Percentile (>MDL - 0.3 ug/kg)
- >50th - 75th Percentile (>0.3 - 2.5 ug/kg)
- >75th - 90th Percentile (>2.5 - 10.6 ug/kg)
- >90th - 95th Percentile (>10.6 - 26.1 ug/kg)
- >95th - 100th Percentile (>26.1 - 3121 ug/kg)
- Not Detected above Method Detection Limit (MDL)
- Not Analyzed

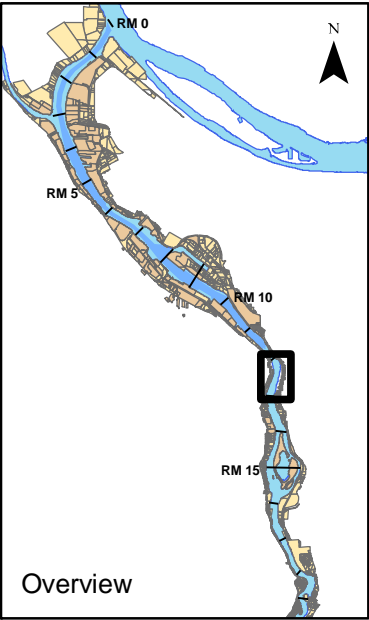
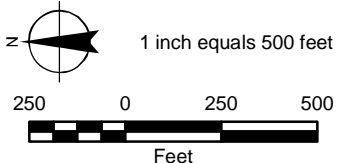




Figure 6-3b  
Total Butyltin Concentrations  
in Sediment Map  
  
Downtown Portland  
Sediment Characterization  
Field and Data Report  
  
River Mile 12 to 13  
  
Willamette River  
Portland, Oregon

LEGEND

- DPSC or LWG Core Location
- DPSC or LWG Grab Location
- PP&R Core Location
- DEQ Cleanup Site (ECSI#/Name)
- City Outfall
- Other Outfall
- Stormwater Pipeline
- Abandoned Stormwater Pipeline
- PGE Station L Sediment Cap, Approximate
- Zidell - DEQ Sediment Management Area
- River Mile (RM)



MAP NOTES:

Projection: Oregon State Plane North  
Datum: North American Datum of 1983  
Date: January 2, 2009  
1. The locations of all features shown are approximate.  
2. DPSC = Downtown Portland Sediment Characterization.  
3. PP&R = Portland Parks & Recreation.  
4. LWG = Lower Willamette Group.  
5. ECSI = Environmental Cleanup Site Information (information current as of February 19, 2008).  
6. LWG core and grab information obtained from LWG SCRA Combo as of August 28, 2008.  
7. PGE Station L sediment cap boundary approximated based on PGE Station L Phase II Final Report (CH2M-Hill, 1991).

8. Zidell-DEQ Sediment Management Area (SMA) boundary provided by Maul, Foster, Alongi (November 3, 2008).  
9. Analyte percentiles calculated based on the combined DPSC, PP&R, and LWG data from RM 12 to RM 16.  
10. Cores with multiple sections analyzed depict percentiles for the highest concentrations detected.  
11. Samples with multiple values, such as field QC splits and reanalyzed samples, were averaged as described in the Field and Data Report.  
12. Outfall data obtained from the LWG's GIS shapefile entitled "Outfall\_Oct\_08.shp". Original source of information provided by the City of Portland in June of 2005. Stormwater pipeline data were provided to GSI Water Solutions by the City of Portland in February of 2008. As data were compiled from a variety of sources, no warranty is made as to the accuracy, reliability, or completeness of these data. Conveyance system information can be accessed at [www.portlandmaps.com](http://www.portlandmaps.com).

Concentrations of Total Butyltins

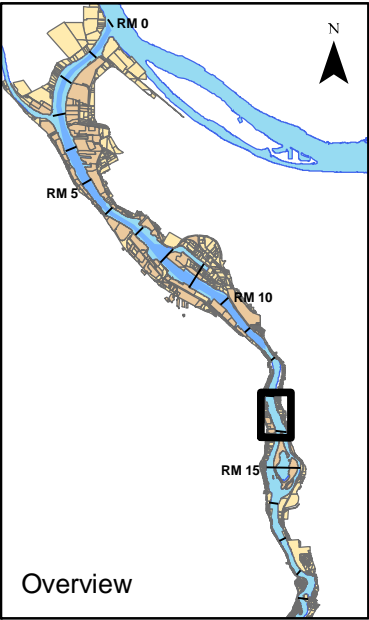
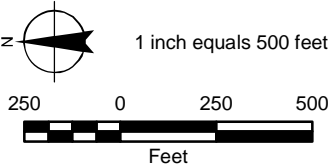
- 0 - 50th Percentile (>MDL - 0.3 ug/kg)
- >50th - 75th Percentile (>0.3 - 2.5 ug/kg)
- >75th - 90th Percentile (>2.5 - 10.6 ug/kg)
- >90th - 95th Percentile (>10.6 - 26.1 ug/kg)
- >95th - 100th Percentile (>26.1 - 3121 ug/kg)
- Not Detected above Method Detection Limit (MDL)
- Not Analyzed





Figure 6-3c  
Total Butyltin Concentrations  
in Sediment Map  
  
Downtown Portland  
Sediment Characterization  
Field and Data Report  
  
River Mile 13 to 14  
  
Willamette River  
Portland, Oregon

- LEGEND**
- DPSC or LWG Core Location
  - DPSC or LWG Grab Location
  - PP&R Core Location
  - DEQ Cleanup Site (ECSI#/Name)
  - City Outfall
  - Other Outfall
  - Stormwater Pipeline
  - Abandoned Stormwater Pipeline
  - PGE Station L Sediment Cap, Approximate
  - Zidell - DEQ Sediment Management Area
  - River Mile (RM)



**MAP NOTES:**

Projection: Oregon State Plane North  
Datum: North American Datum of 1983  
Date: January 2, 2009  
1. The locations of all features shown are approximate.  
2. DPSC = Downtown Portland Sediment Characterization.  
3. PP&R = Portland Parks & Recreation.  
4. LWG = Lower Willamette Group.  
5. ECSI = Environmental Cleanup Site Information (information current as of February 19, 2008).  
6. LWG core and grab information obtained from LWG SCRA Combo as of August 28, 2008.  
7. PGE Station L sediment cap boundary approximated based on PGE Station L Phase II Final Report (CH2M/Hill, 1991).

8. Zidell-DEQ Sediment Management Area (SMA) boundary provided by Maul, Foster, Alongi (November 3, 2008).  
9. Analyte percentiles calculated based on the combined DPSC, PP&R, and LWG data from RM 12 to RM 16.  
10. Cores with multiple sections analyzed depict percentiles for the highest concentrations detected.  
11. Samples with multiple values, such as field QC splits and reanalyzed samples, were averaged as described in the Field and Data Report.  
12. Outfall data obtained from the LWG's GIS shapefile entitled "Outfall\_Oct\_08.shp". Original source of information provided by the City of Portland in June of 2005. Stormwater pipeline data were provided to GSI Water Solutions by the City of Portland in February of 2008. As data were compiled from a variety of sources, no warranty is made as to the accuracy, reliability, or completeness of these data. Conveyance system information can be accessed at [www.portlandmaps.com](http://www.portlandmaps.com).

**Concentrations of Total Butyltins**

- 0 - 50th Percentile (>MDL - 0.3 ug/kg)
- >50th - 75th Percentile (>0.3 - 2.5 ug/kg)
- >75th - 90th Percentile (>2.5 - 10.6 ug/kg)
- >90th - 95th Percentile (>10.6 - 26.1 ug/kg)
- >95th - 100th Percentile (>26.1 - 3121 ug/kg)
- Not Detected above Method Detection Limit (MDL)
- Not Analyzed



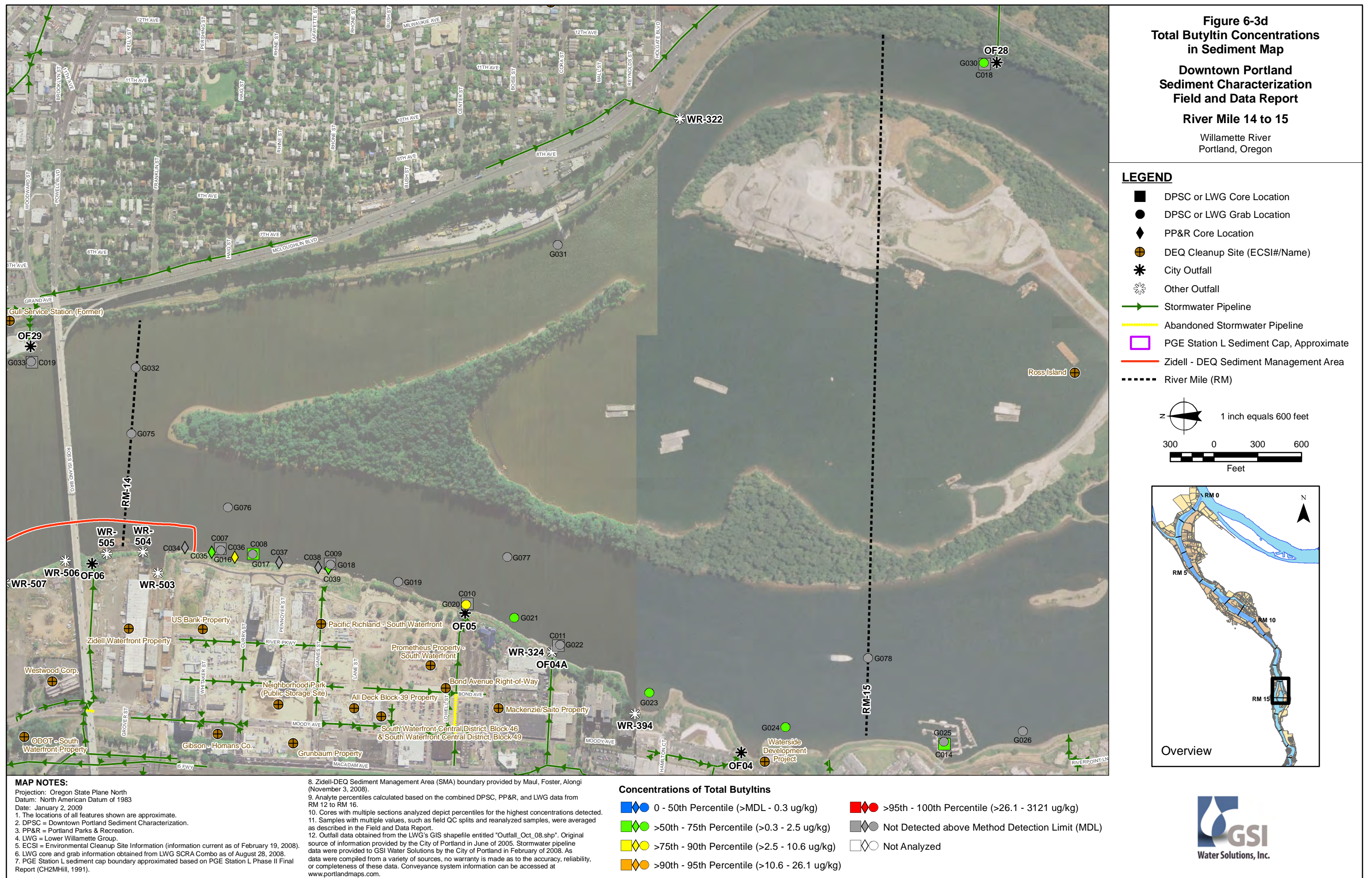
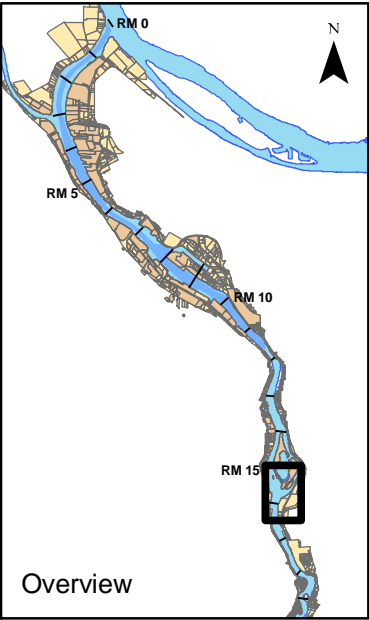
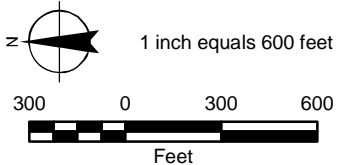




Figure 6-3e  
Total Butyltin Concentrations  
in Sediment Map  
  
Downtown Portland  
Sediment Characterization  
Field and Data Report  
  
River Mile 15 to 16  
  
Willamette River  
Portland, Oregon

- LEGEND**
- DPSC or LWG Core Location
  - DPSC or LWG Grab Location
  - PP&R Core Location
  - DEQ Cleanup Site (ECSI#/Name)
  - City Outfall
  - Other Outfall
  - Stormwater Pipeline
  - Abandoned Stormwater Pipeline
  - PGE Station L Sediment Cap, Approximate
  - Zidell - DEQ Sediment Management Area
  - River Mile (RM)



**MAP NOTES:**  
Projection: Oregon State Plane North  
Datum: North American Datum of 1983  
Date: January 2, 2009  
1. The locations of all features shown are approximate.  
2. DPSC = Downtown Portland Sediment Characterization.  
3. PP&R = Portland Parks & Recreation.  
4. LWG = Lower Willamette Group.  
5. ECSI = Environmental Cleanup Site Information (information current as of February 19, 2008).  
6. LWG core and grab information obtained from LWG SCRA Combo as of August 28, 2008.  
7. PGE Station L sediment cap boundary approximated based on PGE Station L Phase II Final Report (CH2M-Hill, 1991).

8. Zidell-DEQ Sediment Management Area (SMA) boundary provided by Maul, Foster, Alongi (November 3, 2008).  
9. Analyte percentiles calculated based on the combined DPSC, PP&R, and LWG data from RM 12 to RM 16.  
10. Cores with multiple sections analyzed depict percentiles for the highest concentrations detected.  
11. Samples with multiple values, such as field QC splits and reanalyzed samples, were averaged as described in the Field and Data Report.  
12. Outfall data obtained from the LWG's GIS shapefile entitled "Outfall\_Oct\_08.shp". Original source of information provided by the City of Portland in June of 2005. Stormwater pipeline data were provided to GSI Water Solutions by the City of Portland in February of 2008. As data were compiled from a variety of sources, no warranty is made as to the accuracy, reliability, or completeness of these data. Conveyance system information can be accessed at [www.portlandmaps.com](http://www.portlandmaps.com).

**Concentrations of Total Butyltins**

0 - 50th Percentile (>MDL - 0.3 ug/kg)	>95th - 100th Percentile (>26.1 - 3121 ug/kg)
>50th - 75th Percentile (>0.3 - 2.5 ug/kg)	Not Detected above Method Detection Limit (MDL)
>75th - 90th Percentile (>2.5 - 10.6 ug/kg)	Not Analyzed
>90th - 95th Percentile (>10.6 - 26.1 ug/kg)	

