Routine Water Quality Monitoring for ESC CMP V - October 2018

Figure 1:   Level of pH recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.

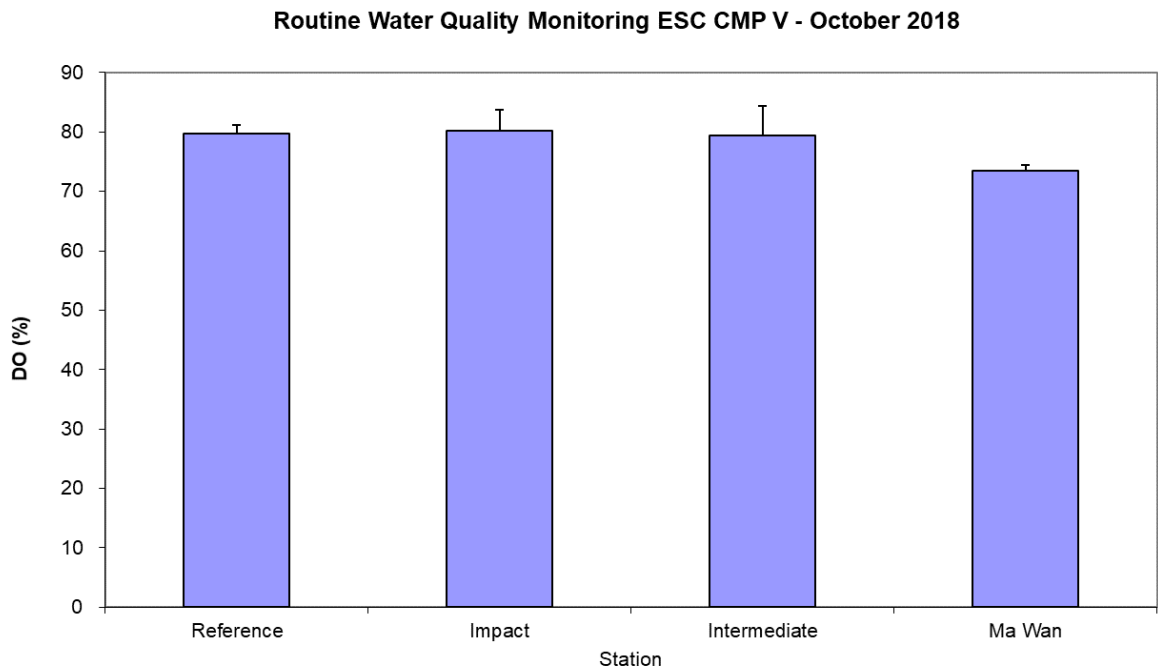**Routine Water Quality Monitoring ESC CMP V - October 2018**

Figure 2:   Level of Dissolved Oxygen (DO) (% saturation; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.

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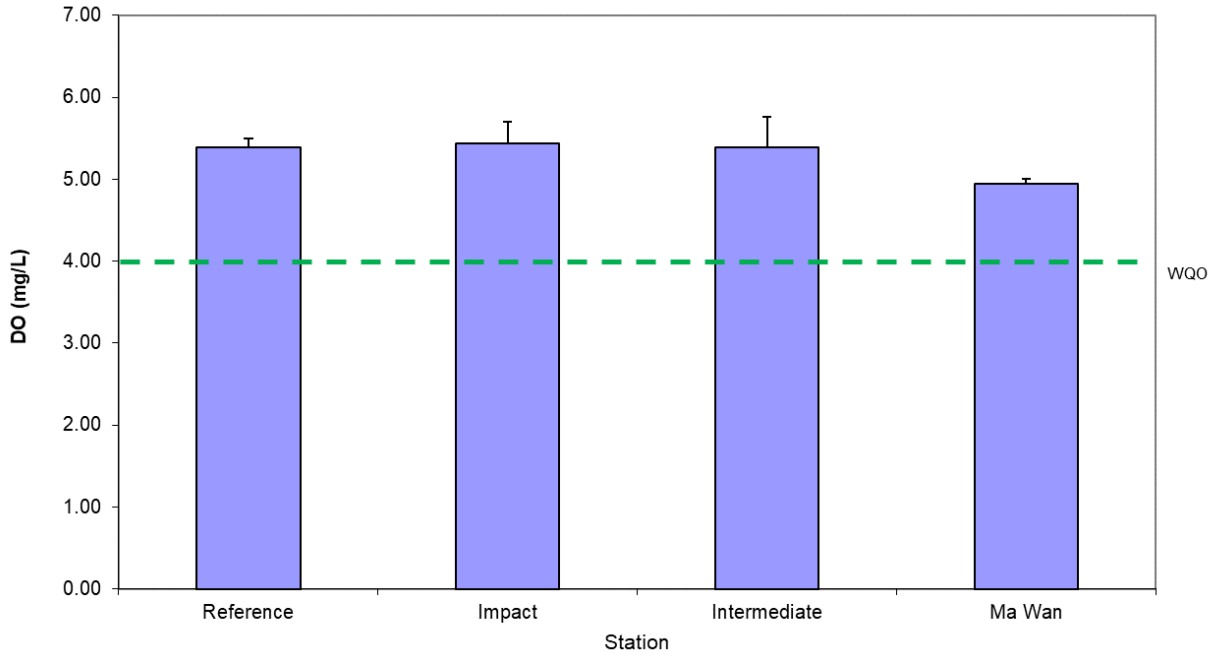**Routine Water Quality Monitoring for ESC CMP V - October 2018**

Figure 3:   Concentration of Dissolved Oxygen (DO) (mg/L; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.

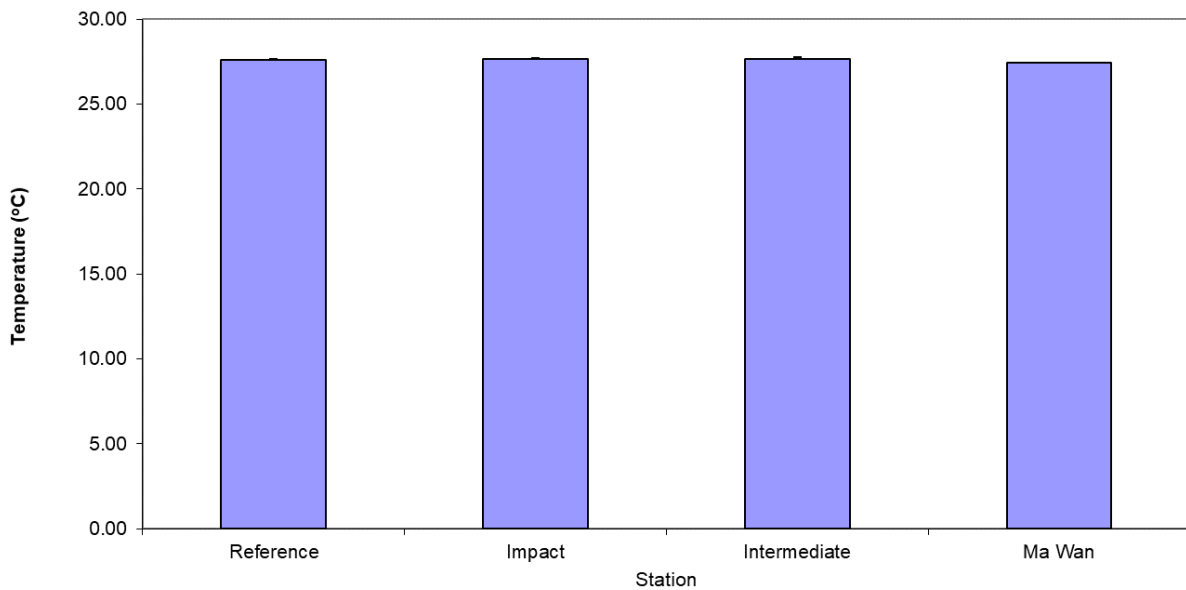**Routine Water Quality Monitoring for ESC CMP V - October 2018**

Figure 4:   Level of Temperature (˚C; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.

Source: H:\Team\EM\GMS Projects\0400720 CEDD CMP EM&A 2017-2020\02
        Deliverable\05 CMP Monthly Report\October 2018)

Date: November 2018

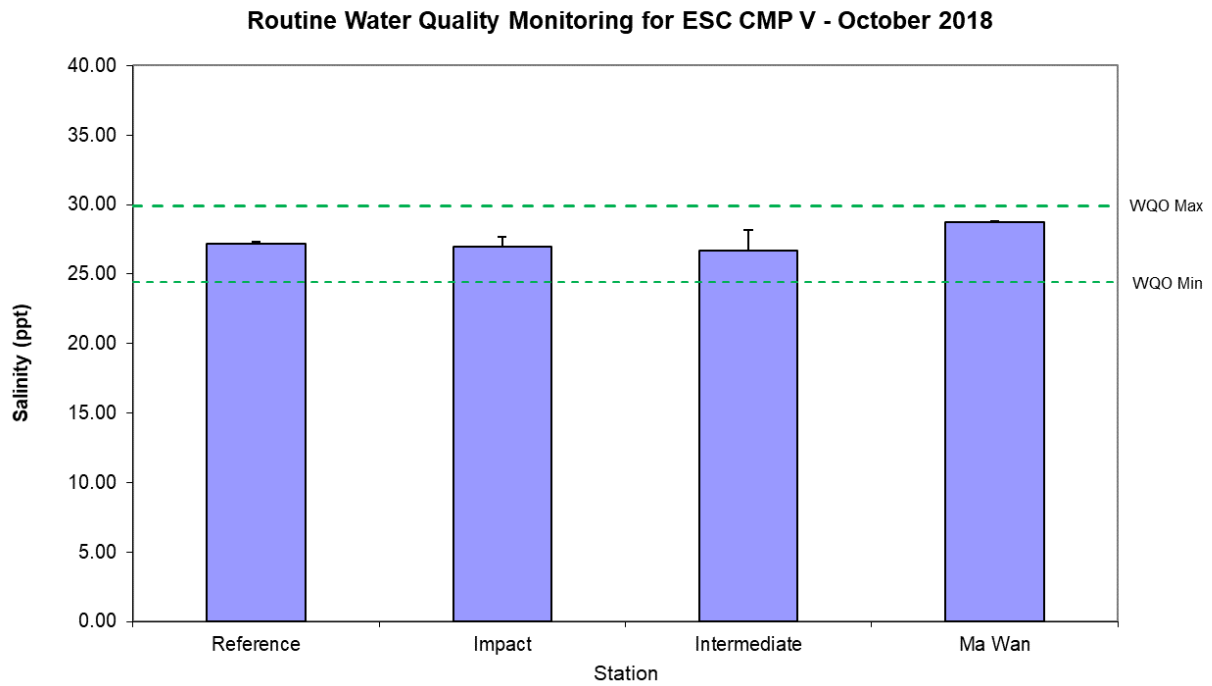**Environmental
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Routine Water Quality Monitoring for ESC CMP V - October 2018

Figure 5: Level of Salinity (ppt; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.

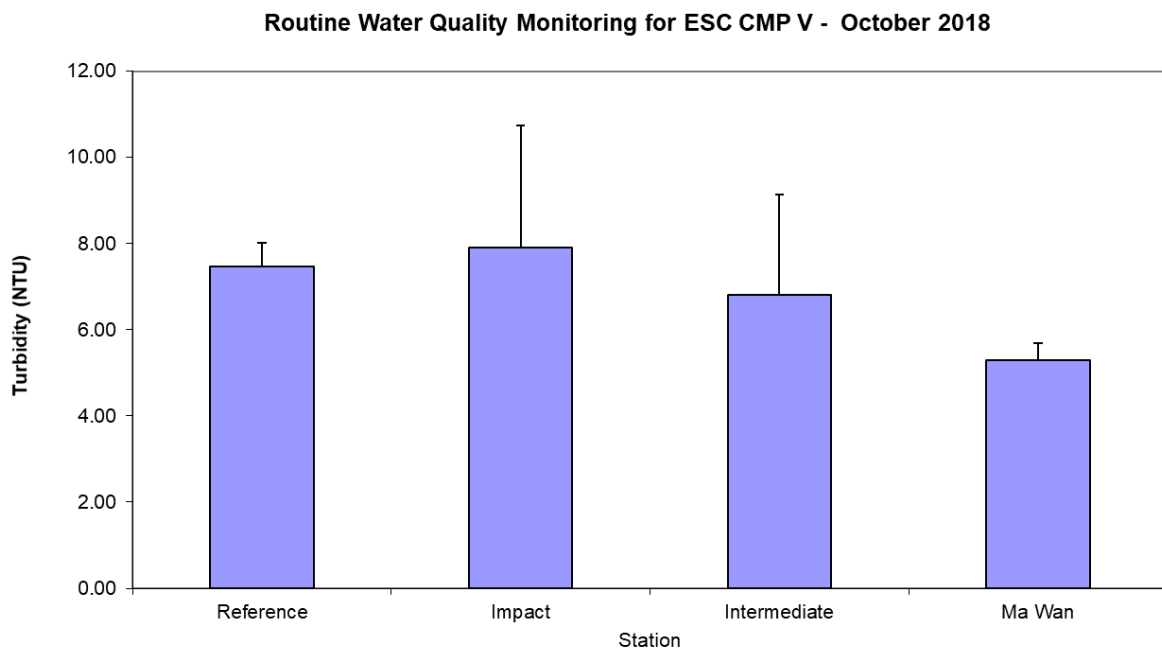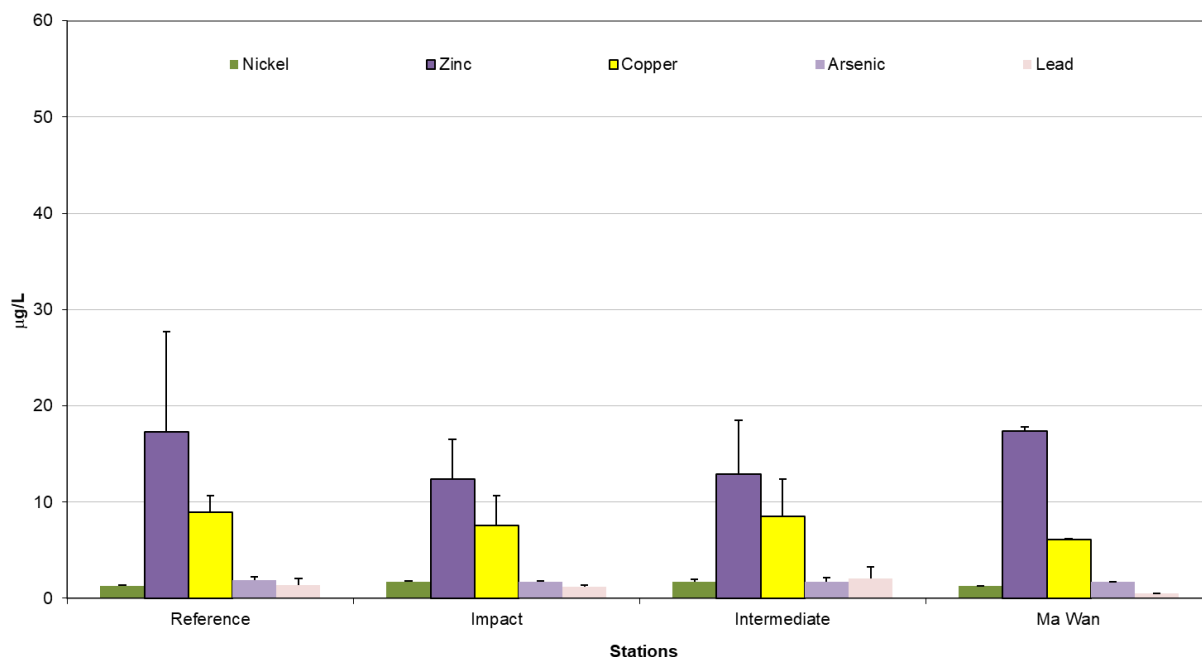**Routine Water Quality Monitoring for ESC CMP V - October 2018**

Figure 6: Levels of Turbidity (NTU; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.

Routine Water Quality Monitoring for ESC CMP V
October 2018

Figure 7:   Concentration of Arsenic, Nickel, Lead, Copper and Zinc (µg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.

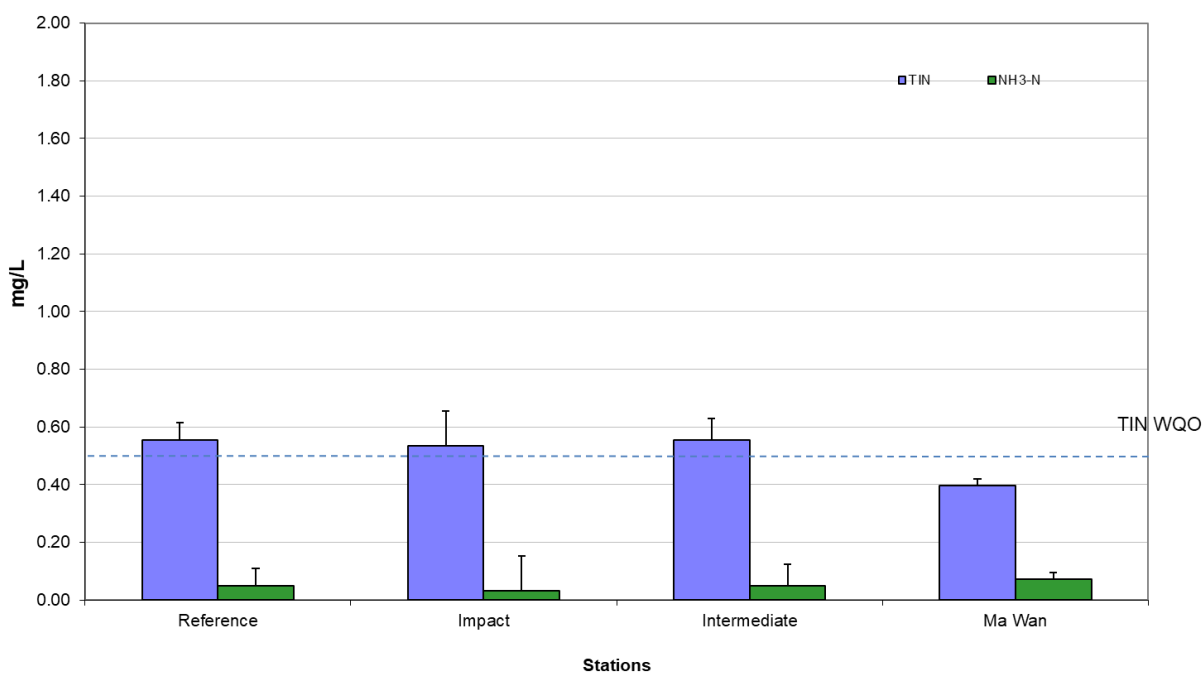**Routine Water Quality Monitoring Results for Nutrients**
October 2018

Figure 8:   Concentration of Total Inorganic Nitrogen (TIN) and Ammonia Nitrogen (NH3-N) (µg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.

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Routine Water Quality Monitoring Results for Biochemical Oxygen Demand (BOD$_5$)
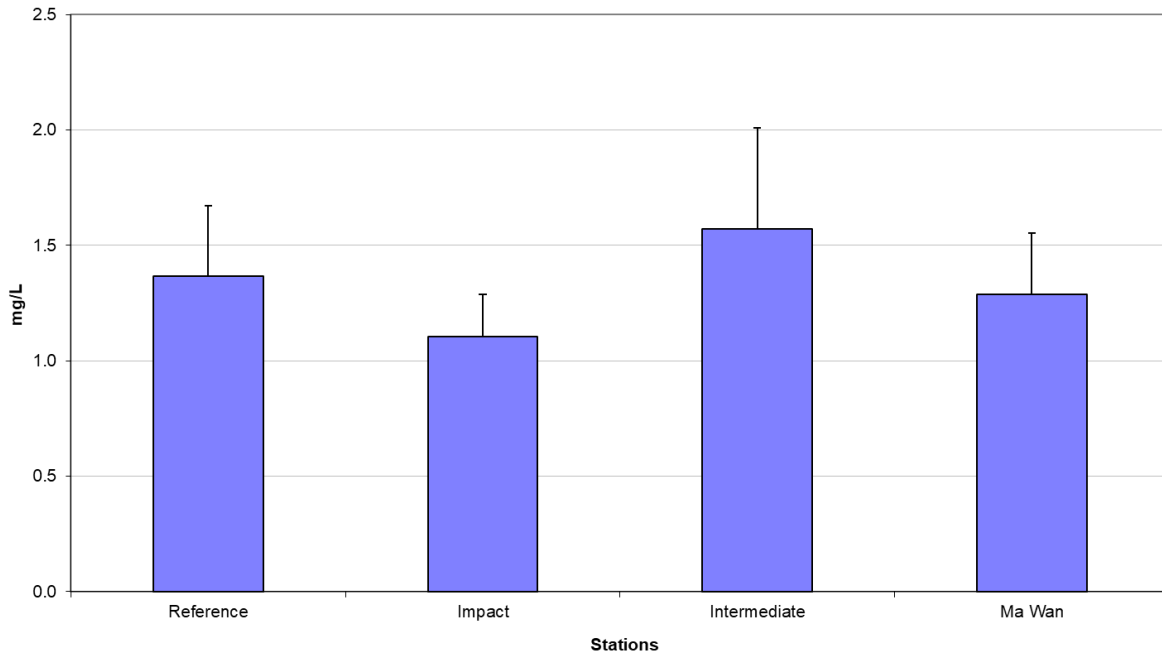**October 2018**

Figure 9: Level of Biochemical Oxygen Demand (BOD$_5$) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.

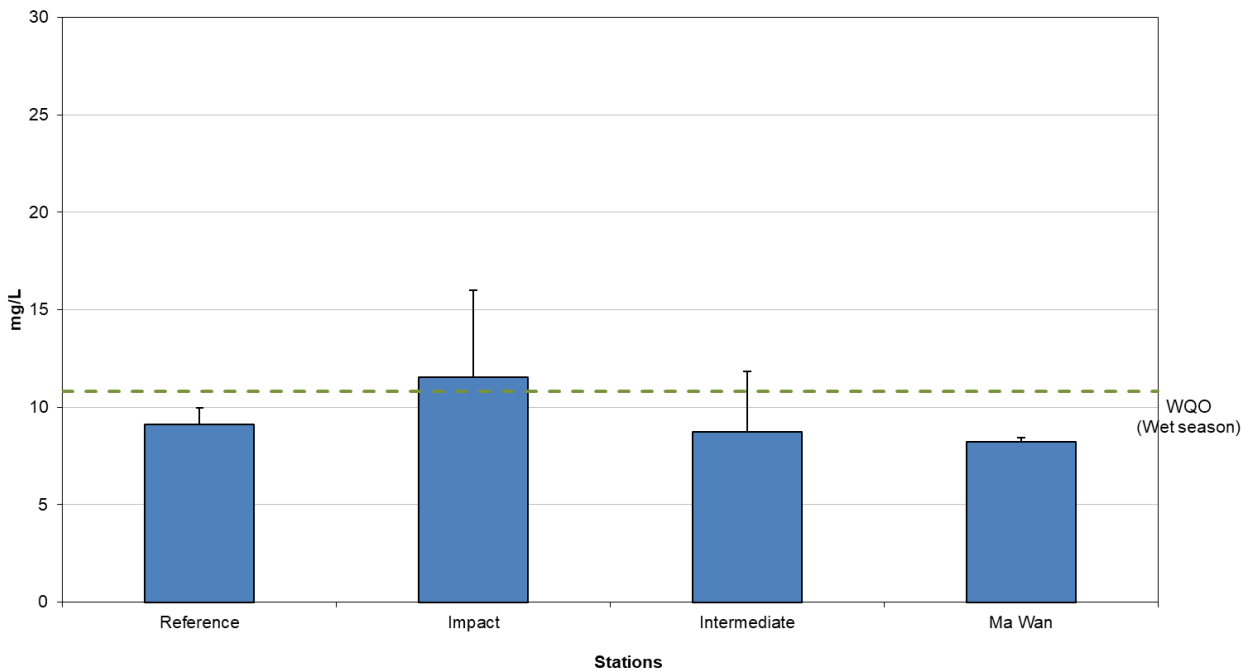**Routine Water Quality Monitoring for Suspended Solids**
October 2018

Figure 10: Concentration of Suspended Solids (SS) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in October 2018.
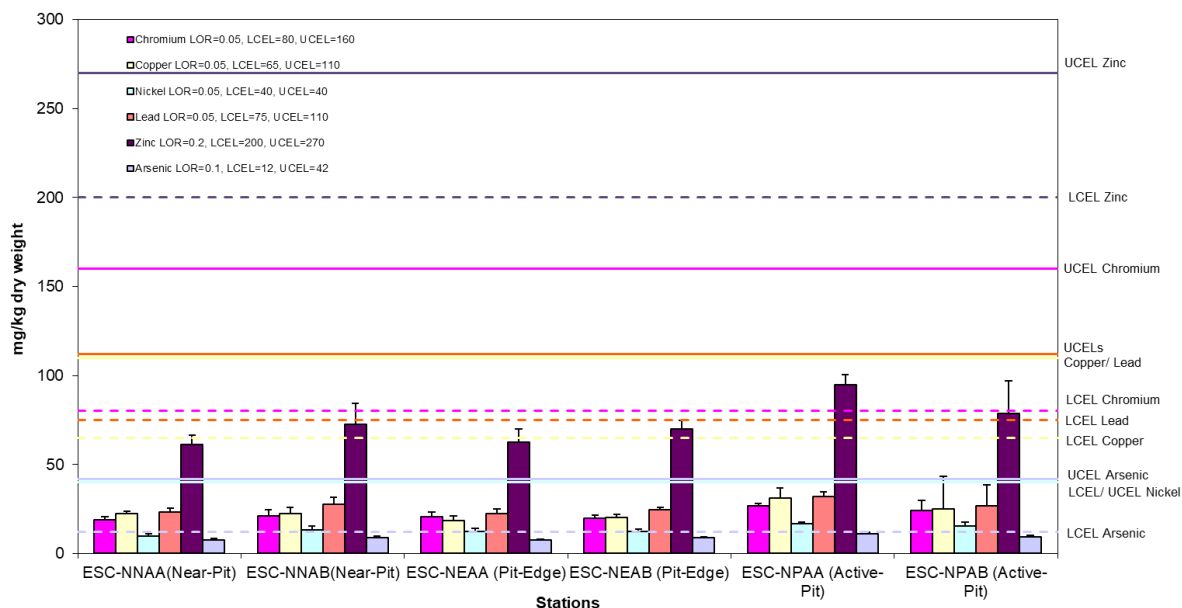
Figure 11: Concentration of Metals and Metalloid (Cr, Cu, Ni, Pb, Zn, As; mg/kg dry weight; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vd in September 2018.
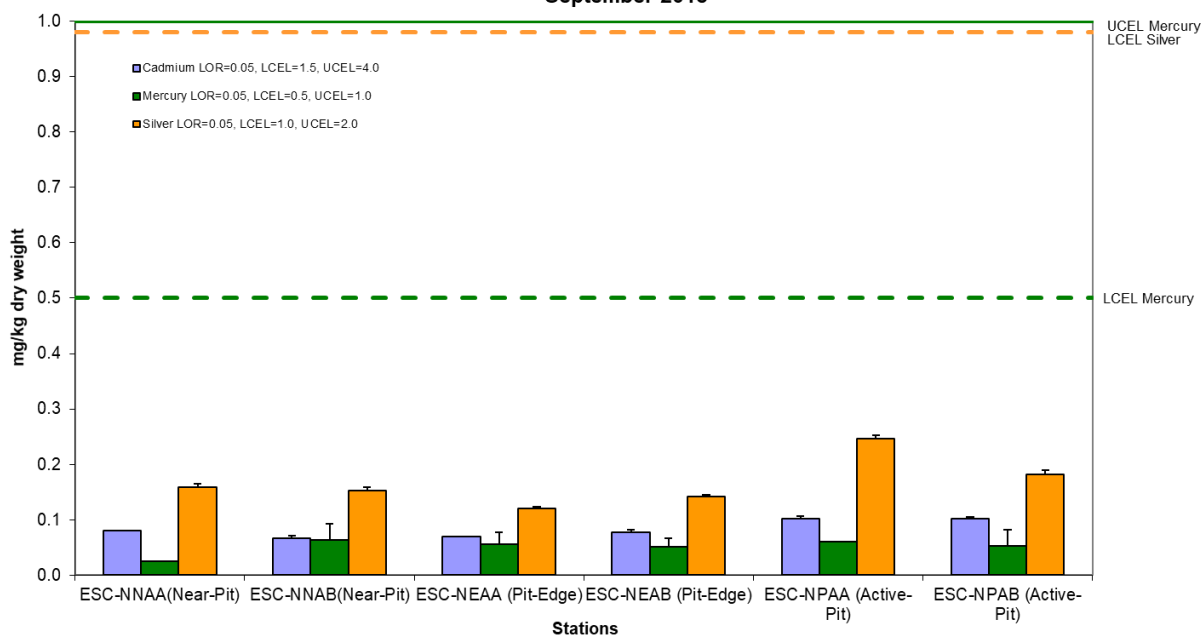

Figure 12: Concentration of Metals (Cd, Hg, Ag; mg/kg dry weight; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vd in September 2018.

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Pit Specific Sediment Chemistry for Total Organic Carbon (TOC) at ESC CMP Vd
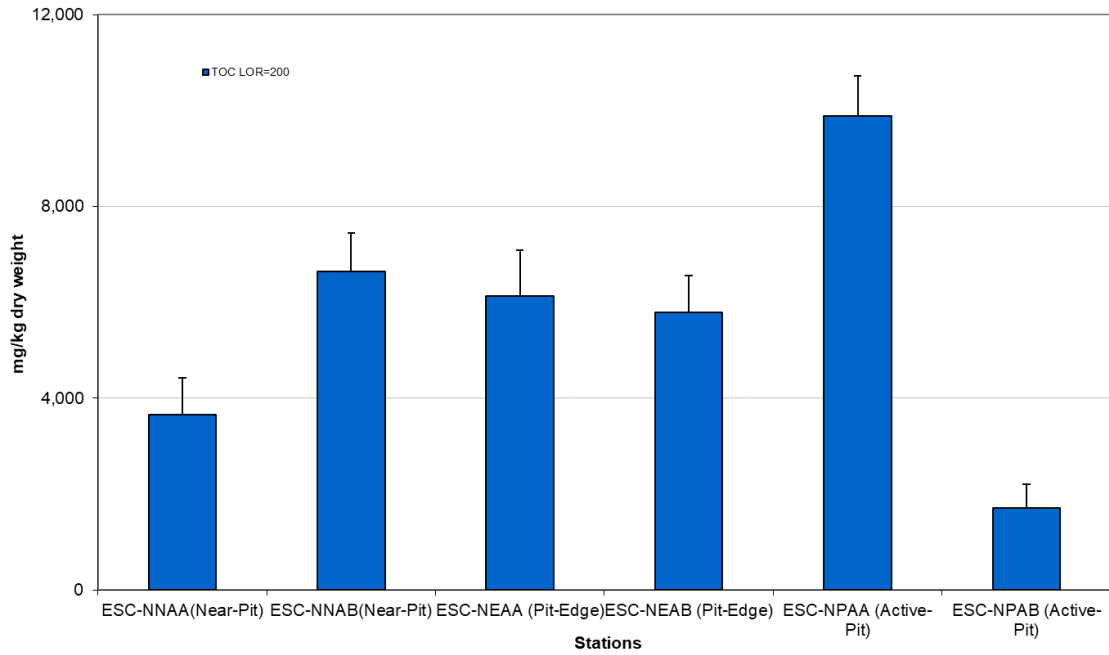**September 2018**

Figure 13: Concentration of Total Organic Carbon (TOC) (mg/kg dry weight; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vd in September 2018.

Pit Specific Sediment Chemistry for Tributyltin (TBT) at ESC CMP Vd
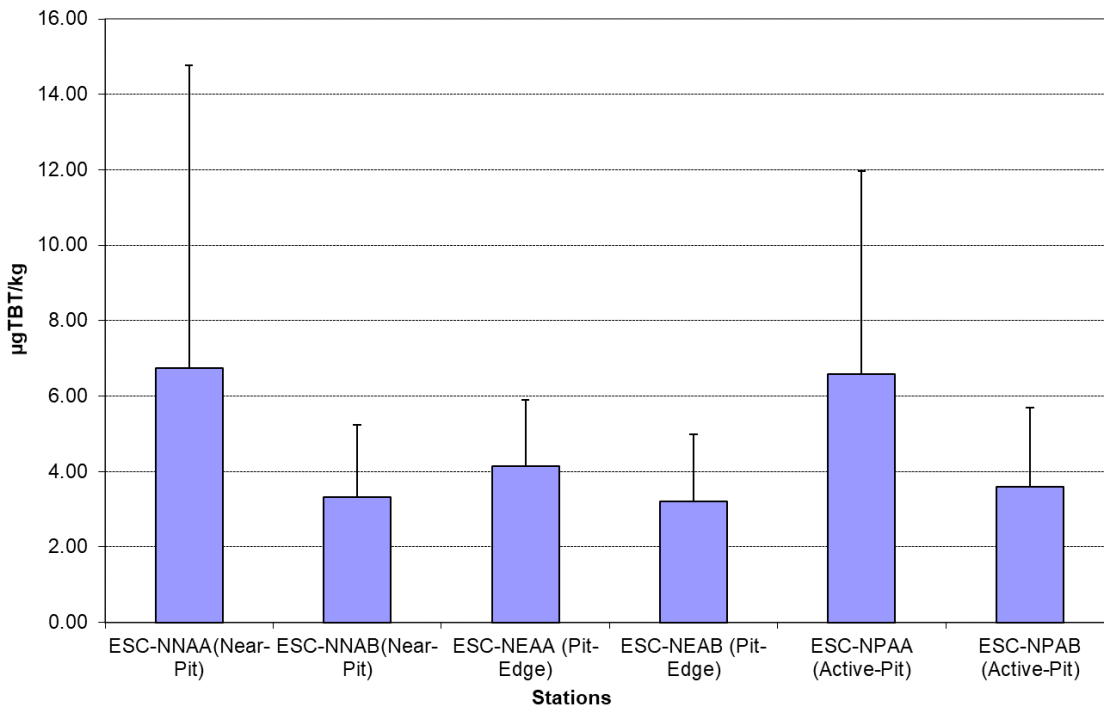**September 2018**

Figure 14: Concentration of Tributyltin (TBT) (μg TBT/kg; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vd in September 2018.

Pit Specific Sediment Chemistry for Low and High Molecular Weight Polycyclic Aromatics Hydrocarbons (PAHs) at ESC CMP Vd in September 2018

LowMW PAHs   LOR = 55, LCEL = 550, UCEL = 3160
HighMW PAHs   LOR = 100, LCEL = 1700, UCEL = 9600

LCEL High MW PAHs

LCEL Low MW PAHs

Stations: ESC-NNAA(Near-Pit), ESC-NNAB(Near-Pit), ESC-NEAA (Pit-Edge), ESC-NEAB (Pit-Edge), ESC-NPAA (Active-Pit), ESC-NPAB (Active-Pit)
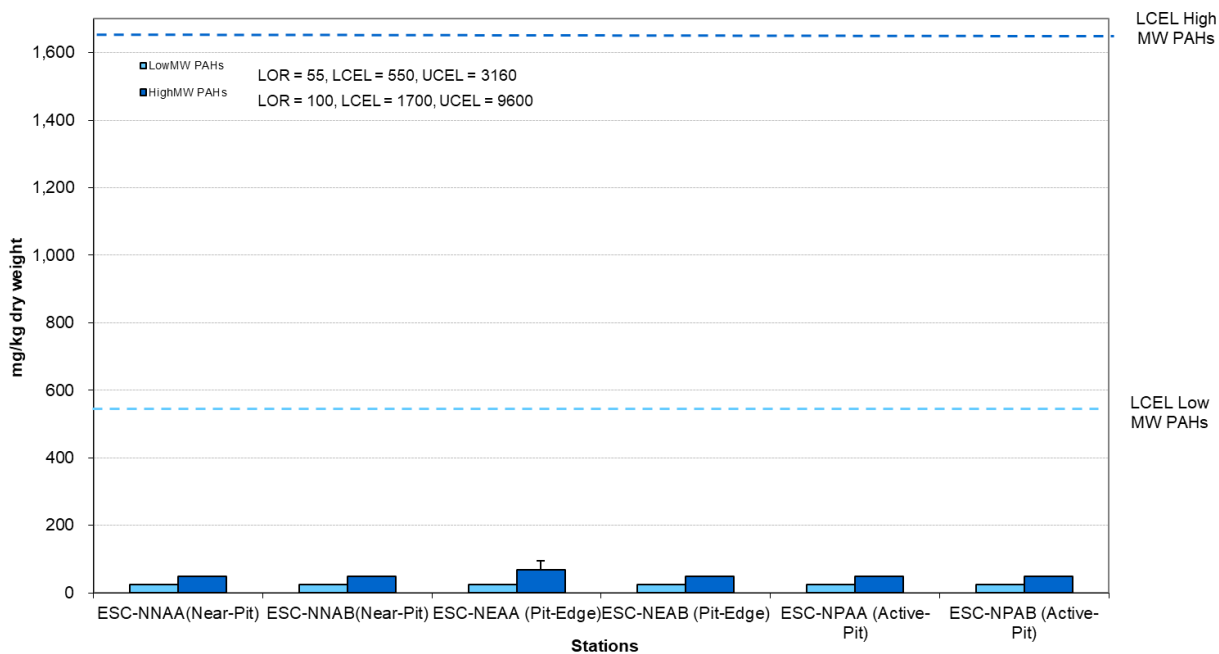
Figure 15: Concentration of Low and High Molecular Weight Polycyclic Aromatics (mg/kg dry weight; mean +SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vd in September 2018.
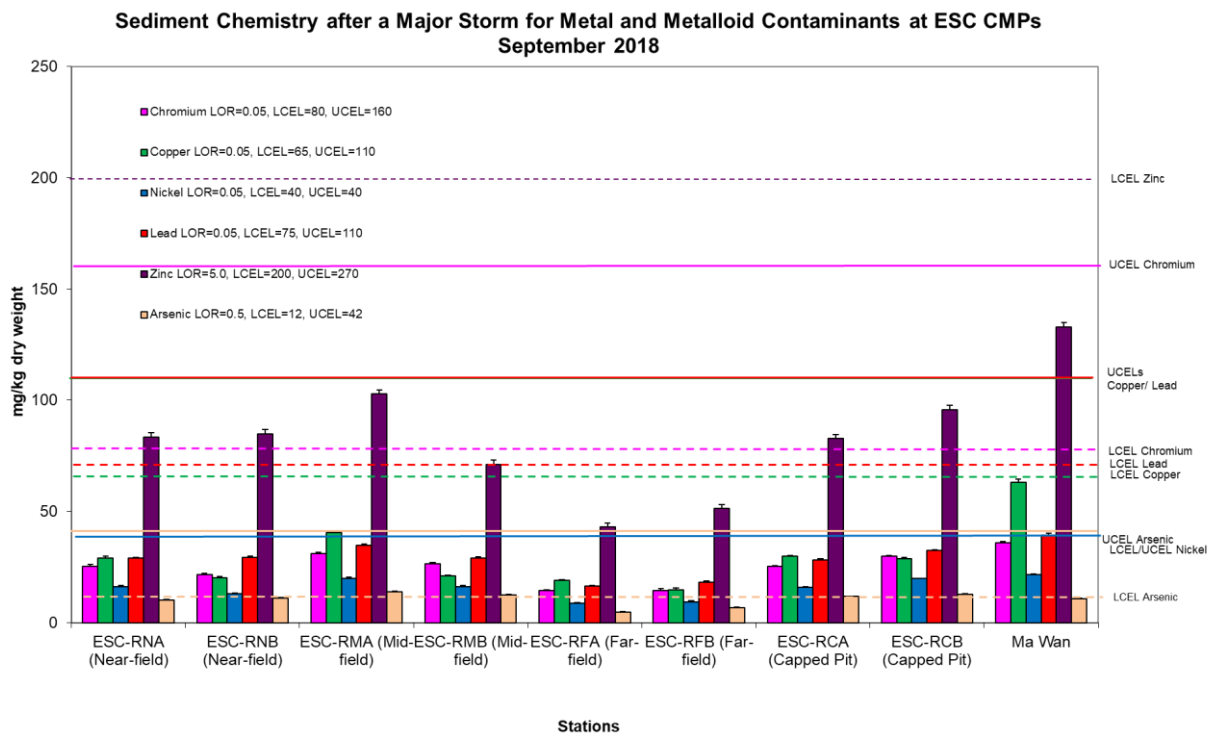
Figure 16: Concentration of Metals (Cr, Cu, Ni, Pb, Zn, As; mean +SD) in sediment samples collected from Sediment Chemistry after a Major Storm for ESC CMPs in September 2018.
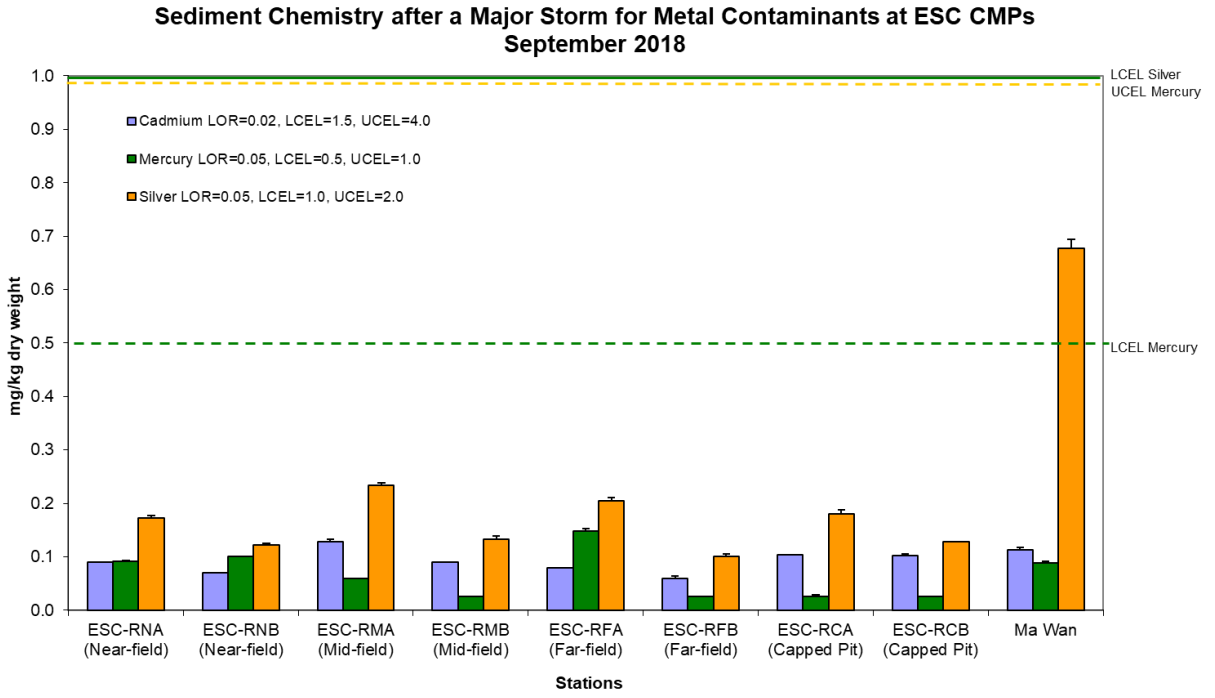

Figure 17: Concentration of Metals (Cd, Hg, Ag; mean +SD) in sediment samples collected from Sediment Chemistry after a Major Storm for ESC CMPs in September 2018.