

# Marshburn Retarding Basin

Monitoring Survey

## Legend

- Benchmarks
- Monitoring Stations





## **Marshburn Retarding Basin (F16B01) Monitoring Survey**

Six survey monuments were set along the top of levee in 2001. This survey will be used as the "benchmark" for all future surveys.

### **Chart Details**

Six monuments were three-dimensionally positioned utilizing GPS Static survey techniques. Because of the layout of the monuments, horizontal comparisons will be shown as differences in the northing and easting, instead of the station and offset method.

Vertical differences are calculated comparing the elevation to the "2001 survey" elevation.

Detailed information pertaining to monument descriptions and survey information can be found at OC Survey Division, Geodetic Control Unit.

All values are shown in U.S. Survey feet.

Horizontal Datum = CCS83, zone VI, 1991.35 Epoch Adjustment  
Vertical Datum = NAVD88, OCS 1995 Adjustment

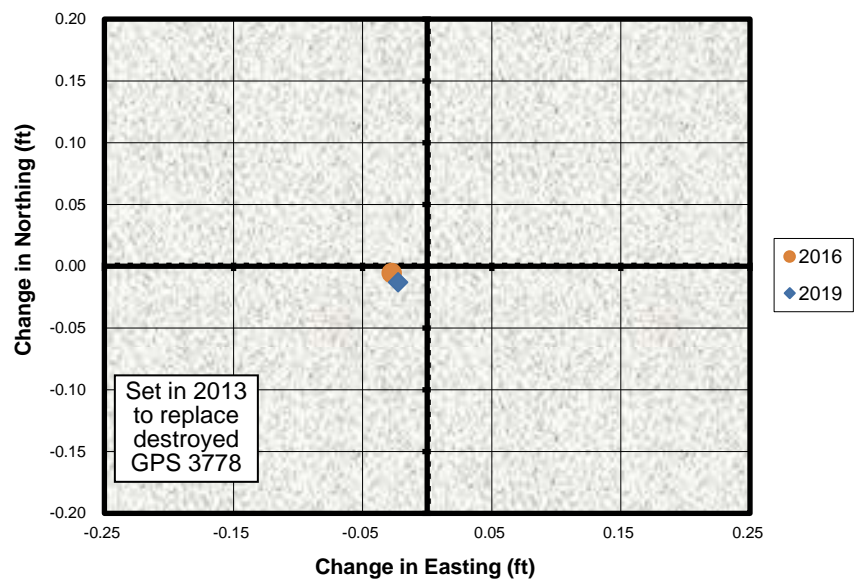
## **Marshburn Retarding Basin (F16B01) Monitoring Survey**

### **Report Summary**

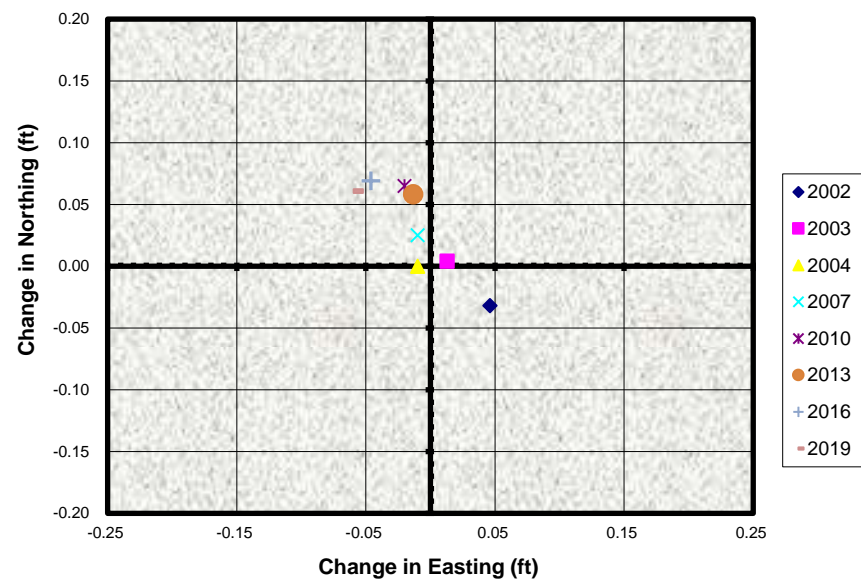
- 2001** Initial survey performed.
- 2002** No significant movement detected.
- 2003** No significant movement detected.
- 2004** No significant movement detected.
- 2007** GPS 3779, 3780 & 3781 have moved vertically -0.05' to -0.08' +/- from 2004 survey. GPS #3778 was destroyed.
- 2010** GPS 3779, 3780 & 3781 have moved vertically -0.02' +/- from 2007 survey.
- 2013** Set GPS #3766 to replace GPS #3778. No significant movement detected.
- 2016** No significant movement detected.
- 2019** No significant movement detected.
- 2022**
- 2025**

# Marshburn Retarding Basin - (Horizontal) Horizontal Movement since 2001 Initial Survey

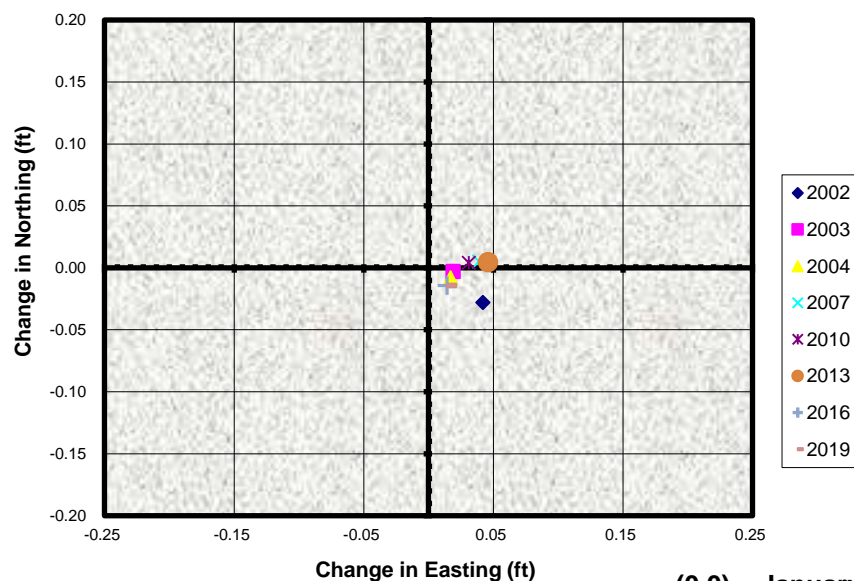
## GPS 3766



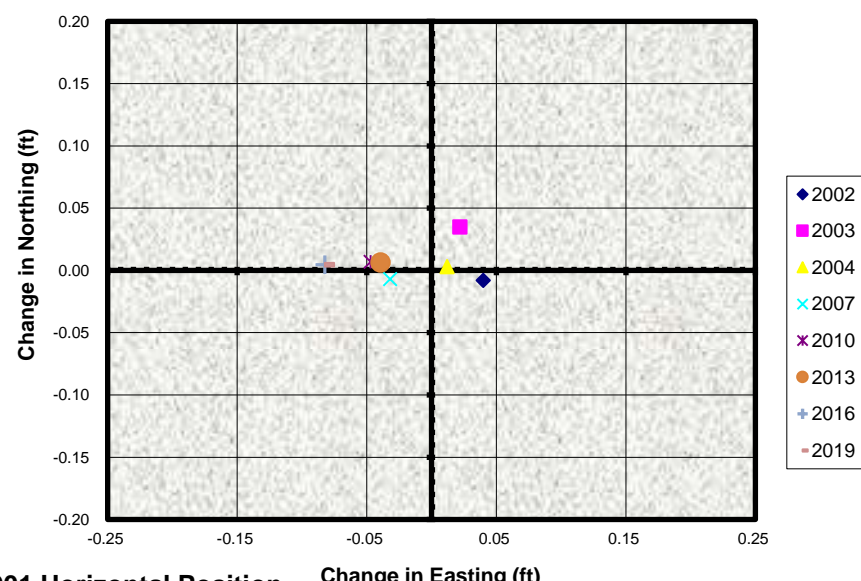
## GPS 3779



## GPS 3780



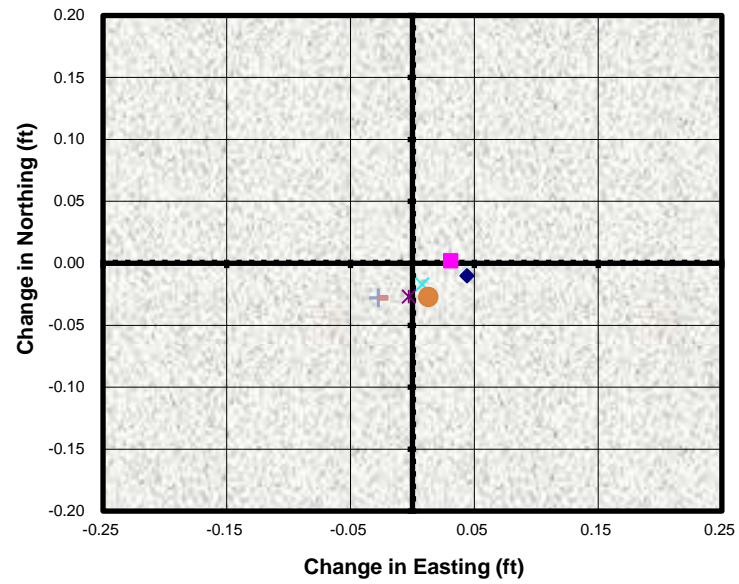
## GPS 3781



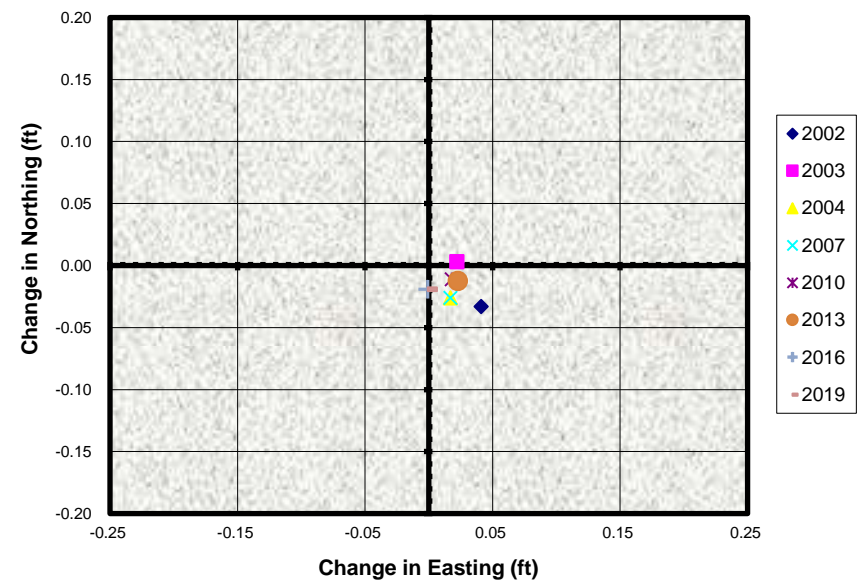
(0,0) = January 2001 Horizontal Position

# Marshburn Retarding Basin - (Horizontal) Horizontal Movement since 2001 Initial Survey

GPS 3782



GPS 3783



(0,0) = January 2001 Horizontal Position

**Marshburn Retarding Basin**  
**Vertical Movement (Orthometric Height Difference from 2001 Elevations)**  
**Profile View - Looking Upstream**

