

December 10, 2014

Katherine Ann Arnold
Director of Environment
HUDBAY
P.O. Box 35130
Tucson, AZ 85740

**SUBJECT: PROJECTED GROUNDWATER LEVEL DRAWDOWN
HYDROGRAPHS FROM M&A ROSEMONT MINE EIS
GROUNDWATER FLOW MODEL IN RESPONSE TO
NOVEMBER 25, 2014 REQUEST FROM
CORONADO NATIONAL FOREST SERVICE**

Dear Ms. Arnold:

Enclosed find a location map and hydrographs of projected groundwater level drawdown through 1,000 years post-mining at nine locations requested in a November 25, 2014 letter from the Coronado National Forest (CNF). These hydrographs are provided as an addendum to the November 30, 2012 letter submitted to you by Montgomery & Associates (M&A), which was prepared in response to a May 3, 2012 CNF letter regarding documents submitted in support of groundwater impacts for the Environmental Impact Statement (EIS). Hydrographs for this addendum are extracted from the same M&A model predictive simulations (baseline and sensitivity runs) described in the November 30, 2012 letter; no additional simulations were conducted for this current submittal. As requested by CNF, an Excel file containing the projected time-series drawdowns for the nine hydrograph locations will be submitted along with this letter.

The nine CNF selected hydrograph locations are shown on **Figure A1**, and are identified as follows, along with their respective hydrograph figure numbers:

1. Cienega Creek Reach 2 (CC2); hydrograph shown on **Figure A2**.
2. Cienega Creek Reach 4 (CC4); hydrograph shown on **Figure A3**.
3. Cienega Creek Reach 5 (CC5); hydrograph shown on **Figure A4**.
4. Cienega Creek Reach 7 (CC7); hydrograph shown on **Figure A5**.
5. Lower Cienega Creek Reach 1 (LCC1); hydrograph shown on **Figure A6**.
6. Lower Cienega Creek Reach 2 (LCC2); hydrograph shown on **Figure A7**.

7. Empire Gulch Reach 1 (EG1); hydrograph shown on **Figure A8**.
8. Empire Gulch Reach 2 (EG2); hydrograph shown on **Figure A9**.
9. Cienegita Wetlands (CGW); hydrograph shown on **Figure A10**.

Earliest, latest, minimum, and maximum drawdown sensitivity simulations were identified in the hydrographs where discernable.

Please contact me if further data or analysis is required.

Sincerely,

MONTGOMERY & ASSOCIATES



Hale W. Barter

Enclosure

SENT VIA EMAIL AND U.S MAIL

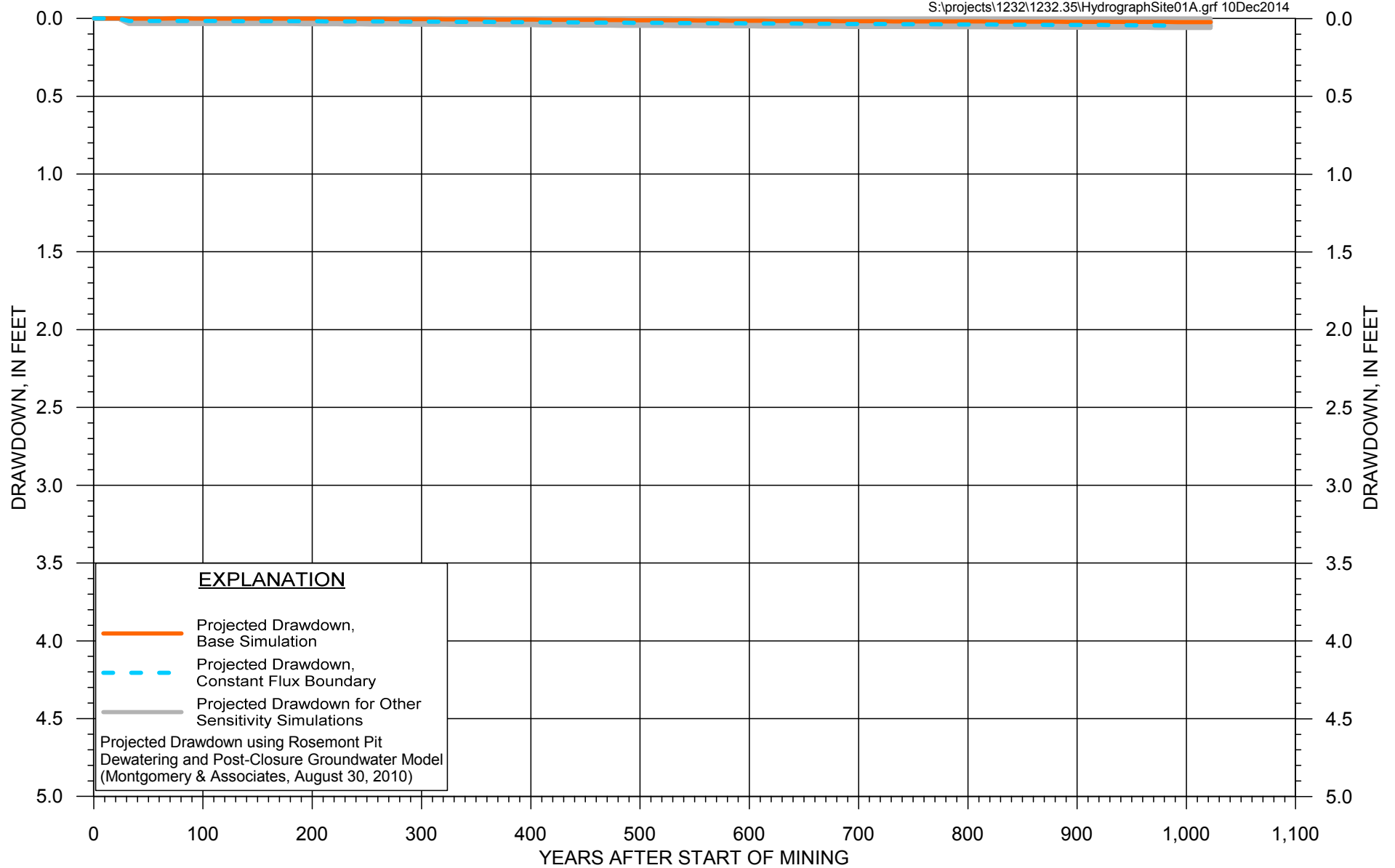


FIGURE A2. SENSITIVITY OF PROJECTED DRAWDOWN AT CIENEGA CREEK REACH 2 (CC2) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA

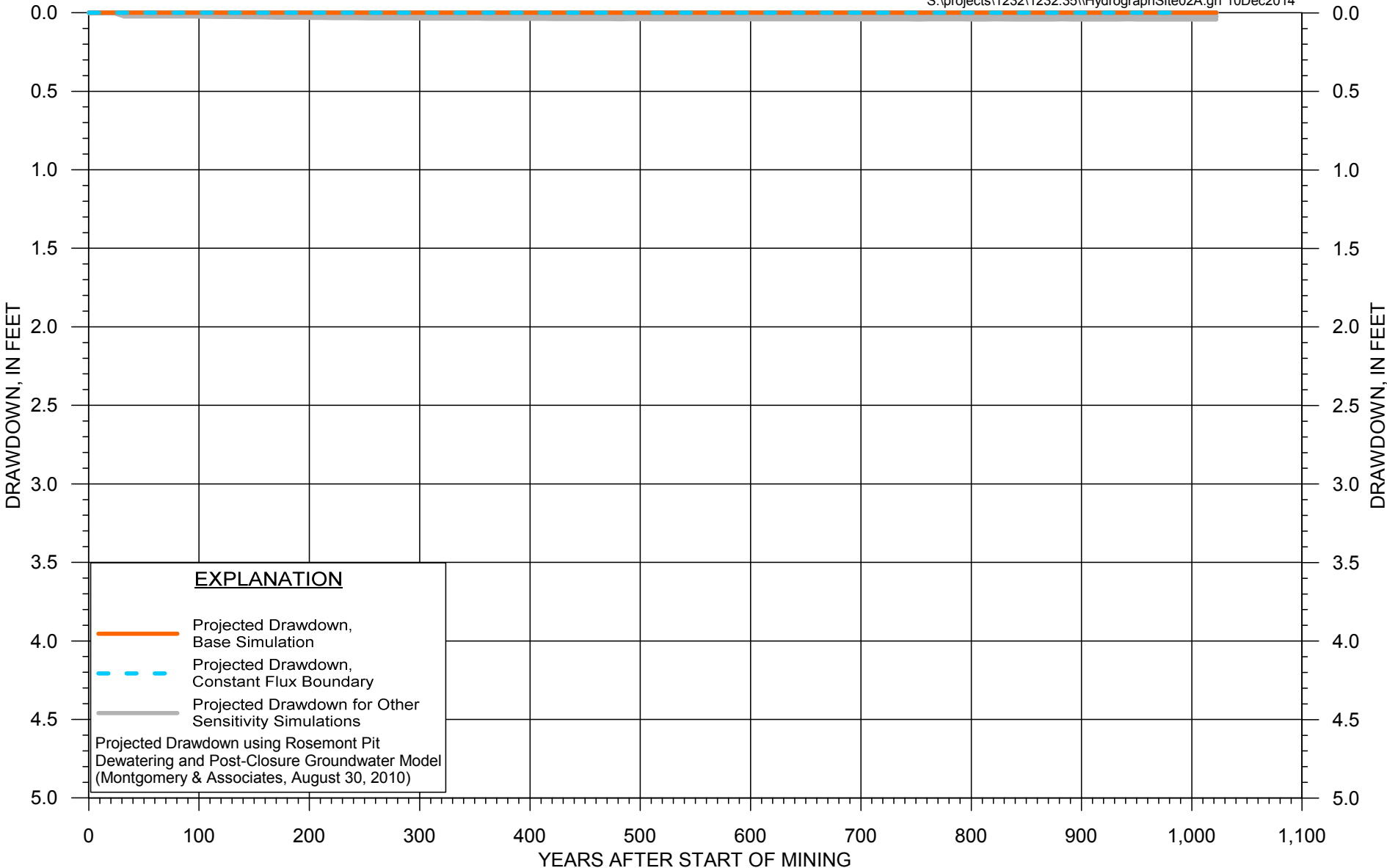
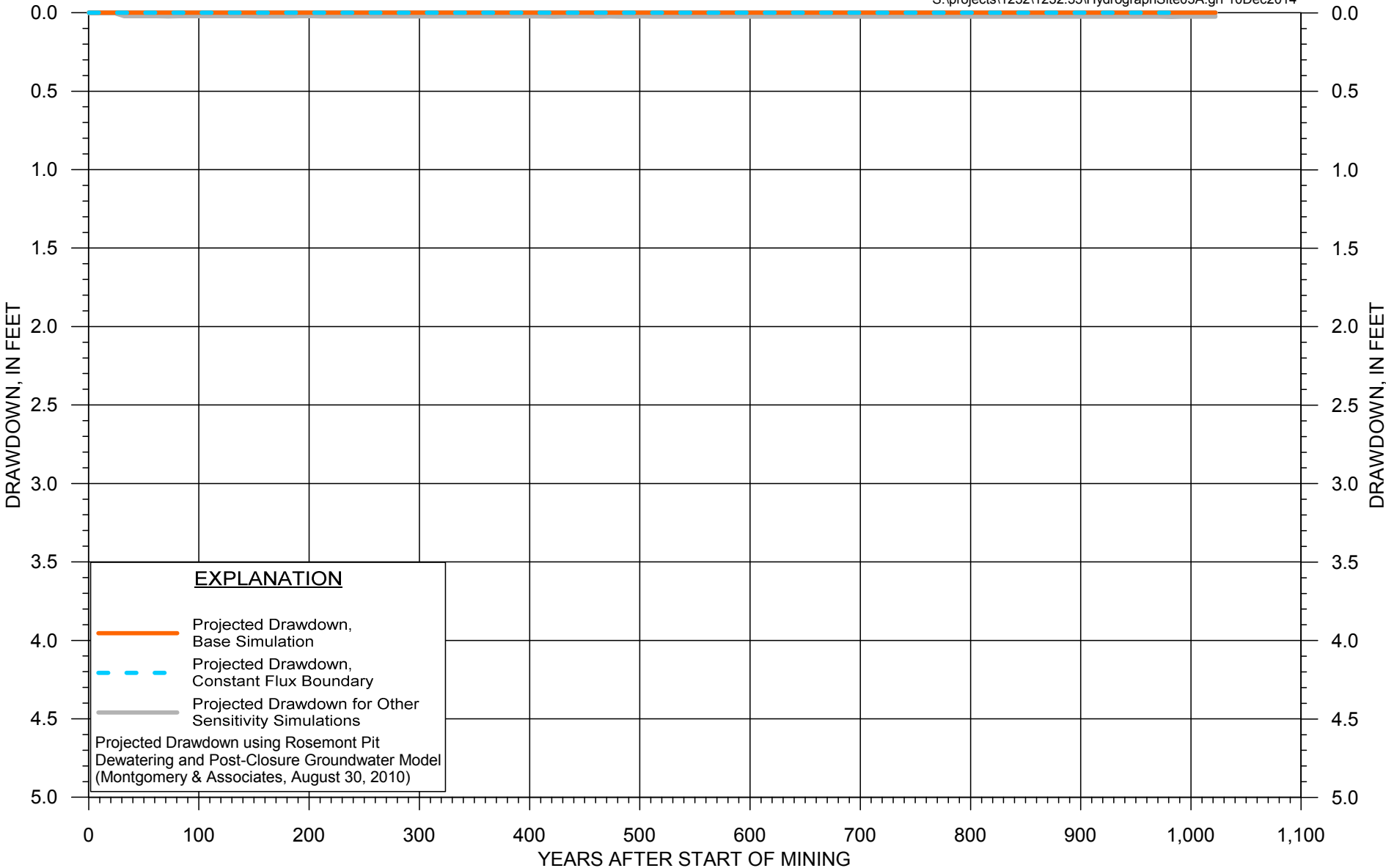
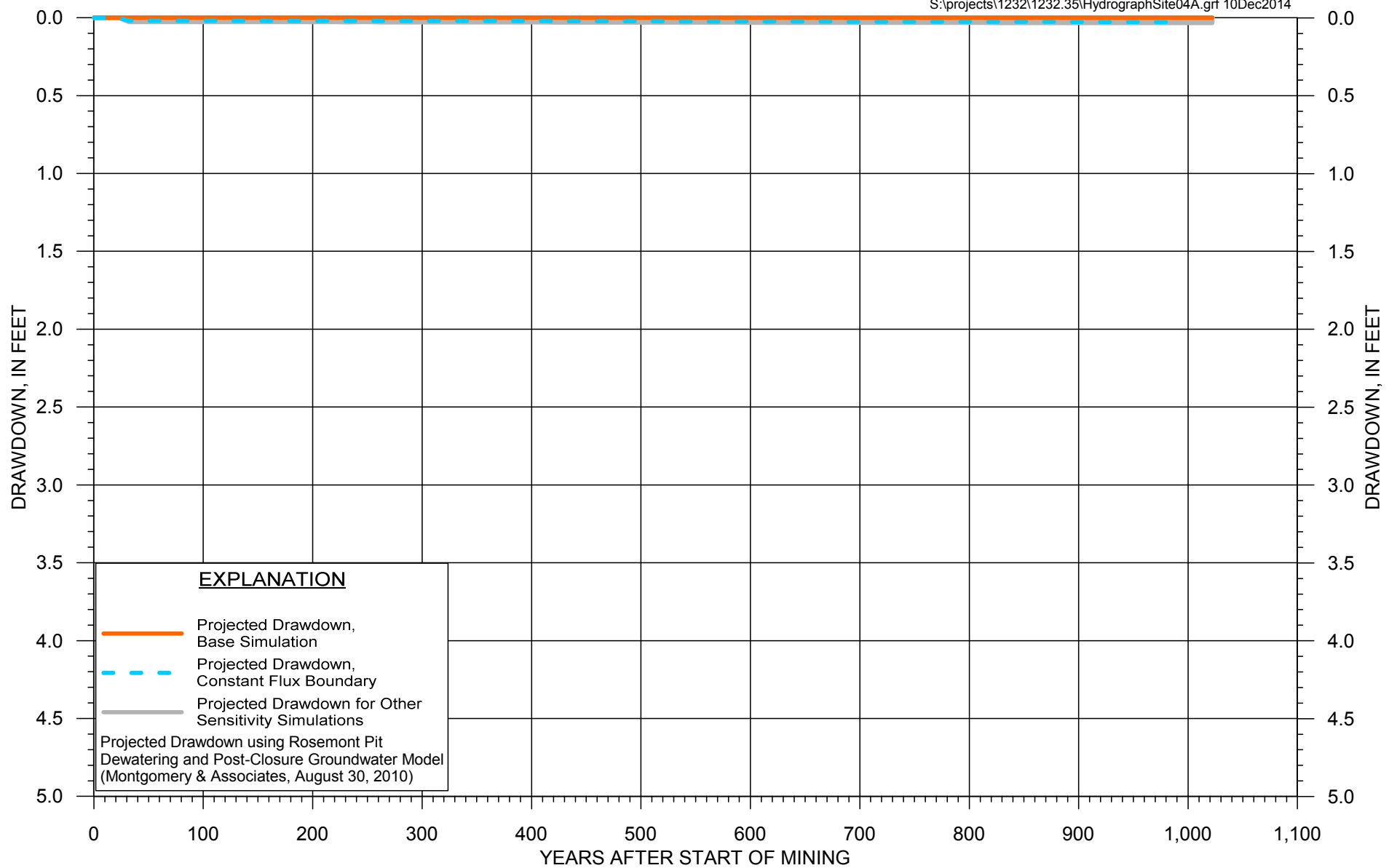


FIGURE A3. SENSITIVITY OF PROJECTED DRAWDOWN AT CIENEGA CREEK REACH 4 (CC4) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA



**FIGURE A4. SENSITIVITY OF PROJECTED DRAWDOWN AT CIENEGA CREEK REACH 5 (CC5)
ROSEMONT PROJECT, PIMA COUNTY, ARIZONA**



**FIGURE A5. SENSITIVITY OF PROJECTED DRAWDOWN AT CIENEGA CREEK REACH 7 (CC7)
ROSEMONT PROJECT, PIMA COUNTY, ARIZONA**

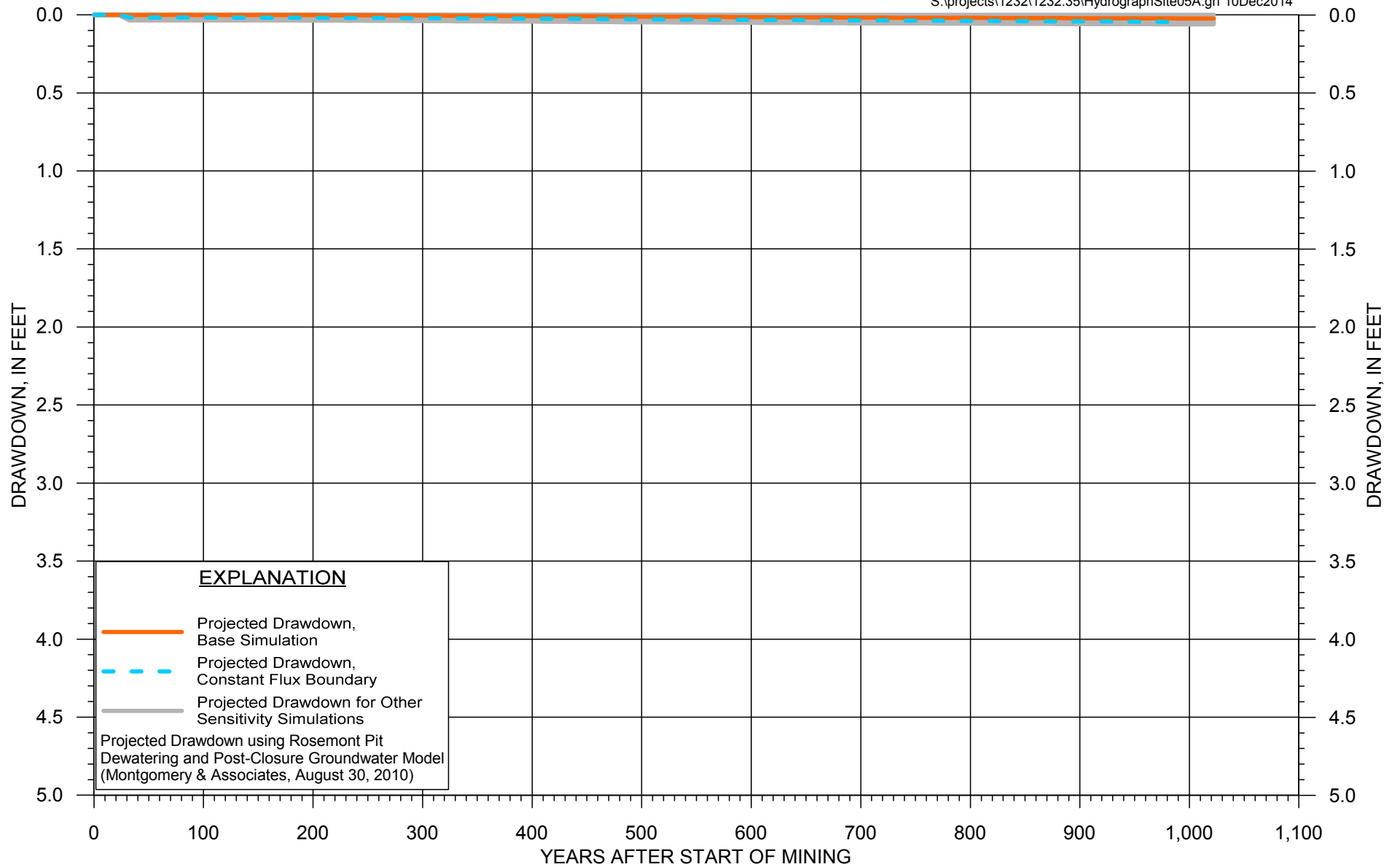
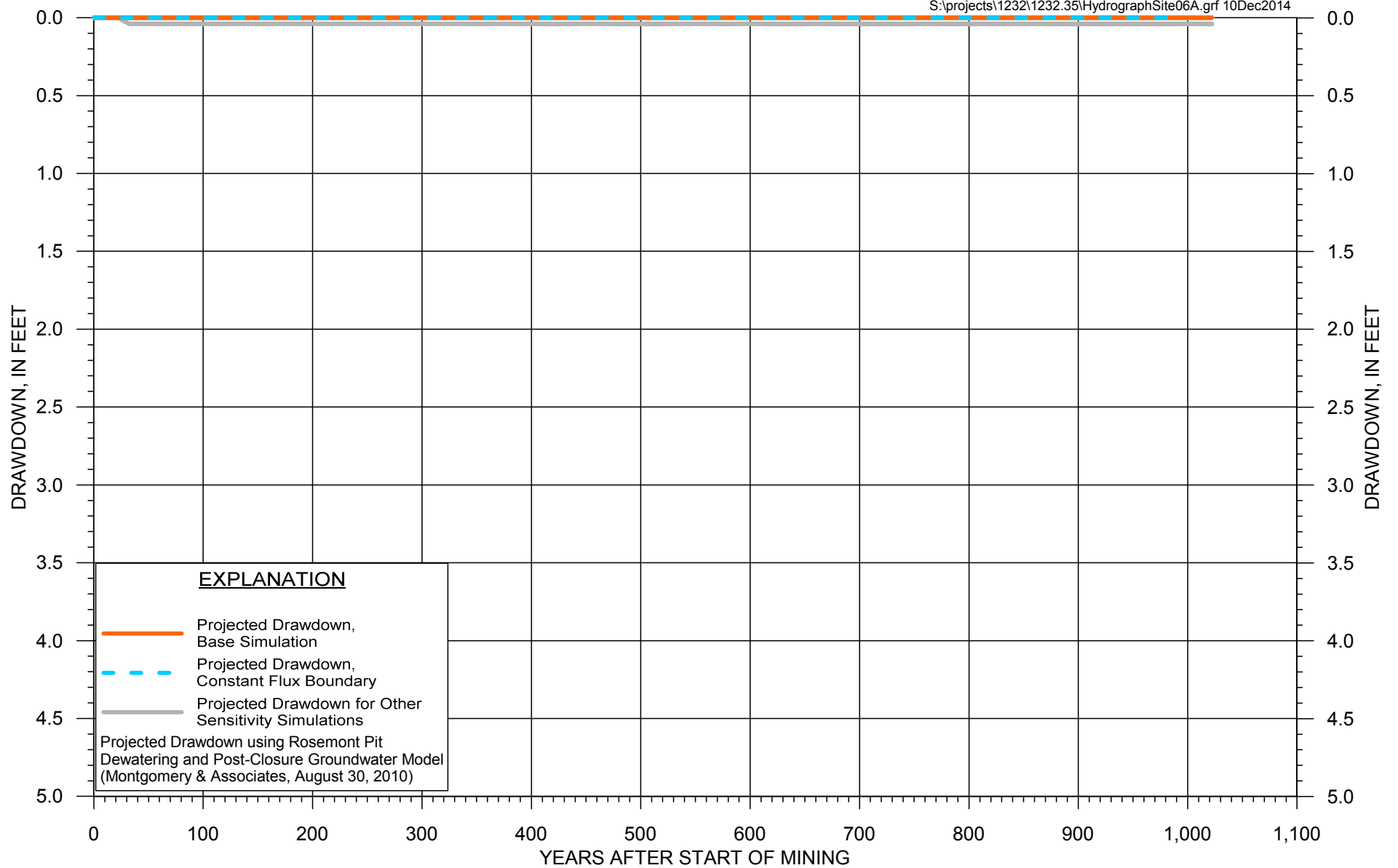


FIGURE A6. SENSITIVITY OF PROJECTED DRAWDOWN AT LOWER CIENEGA CREEK REACH 1 (LCC1) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA



**FIGURE A7. SENSITIVITY OF PROJECTED DRAWDOWN AT LOWER CIENEGA CREEK REACH 2 (LCC2)
ROSEMONT PROJECT, PIMA COUNTY, ARIZONA**

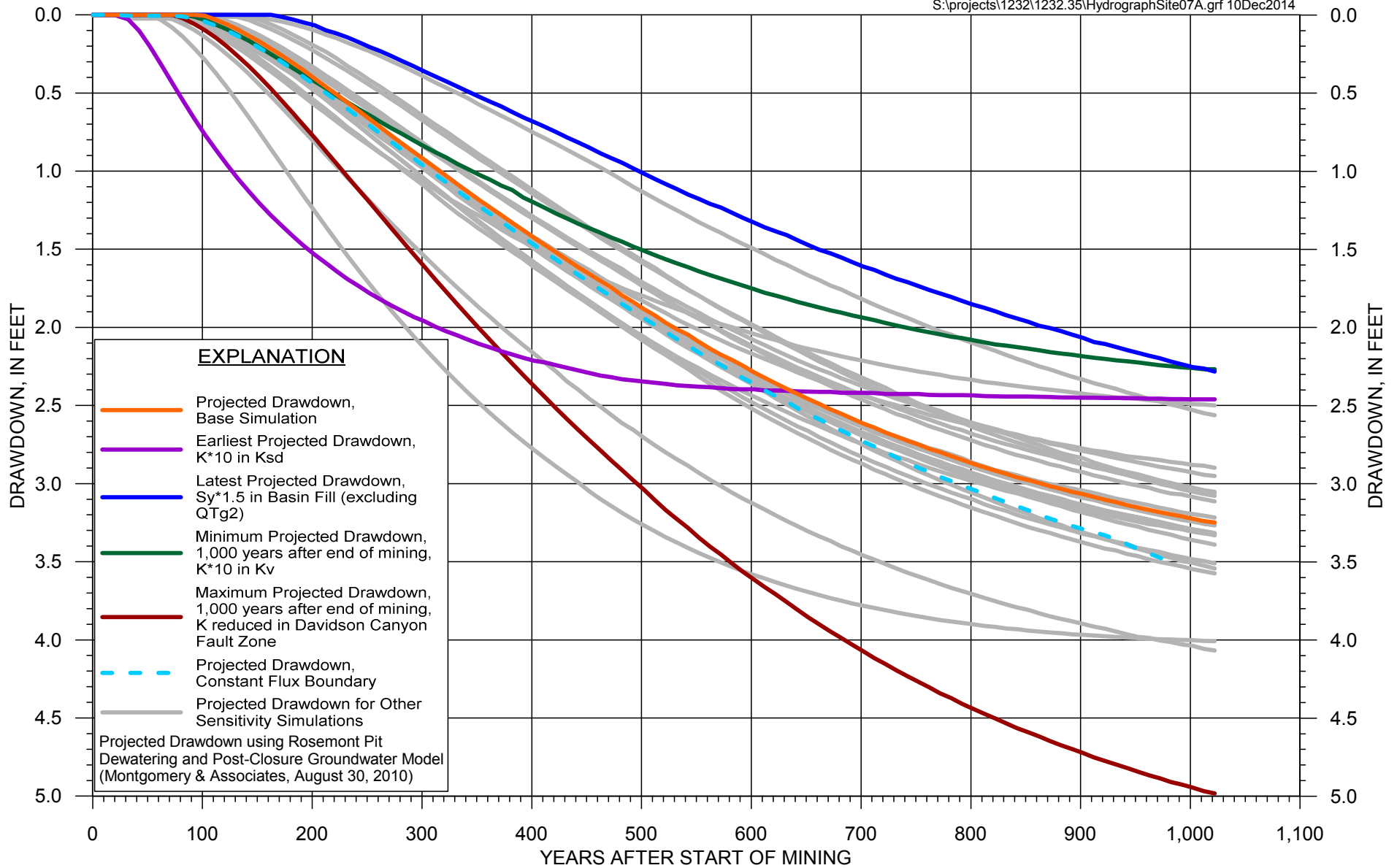


FIGURE A8. SENSITIVITY OF PROJECTED DRAWDOWN AT EMPIRE GULCH REACH 1 (EG1) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA

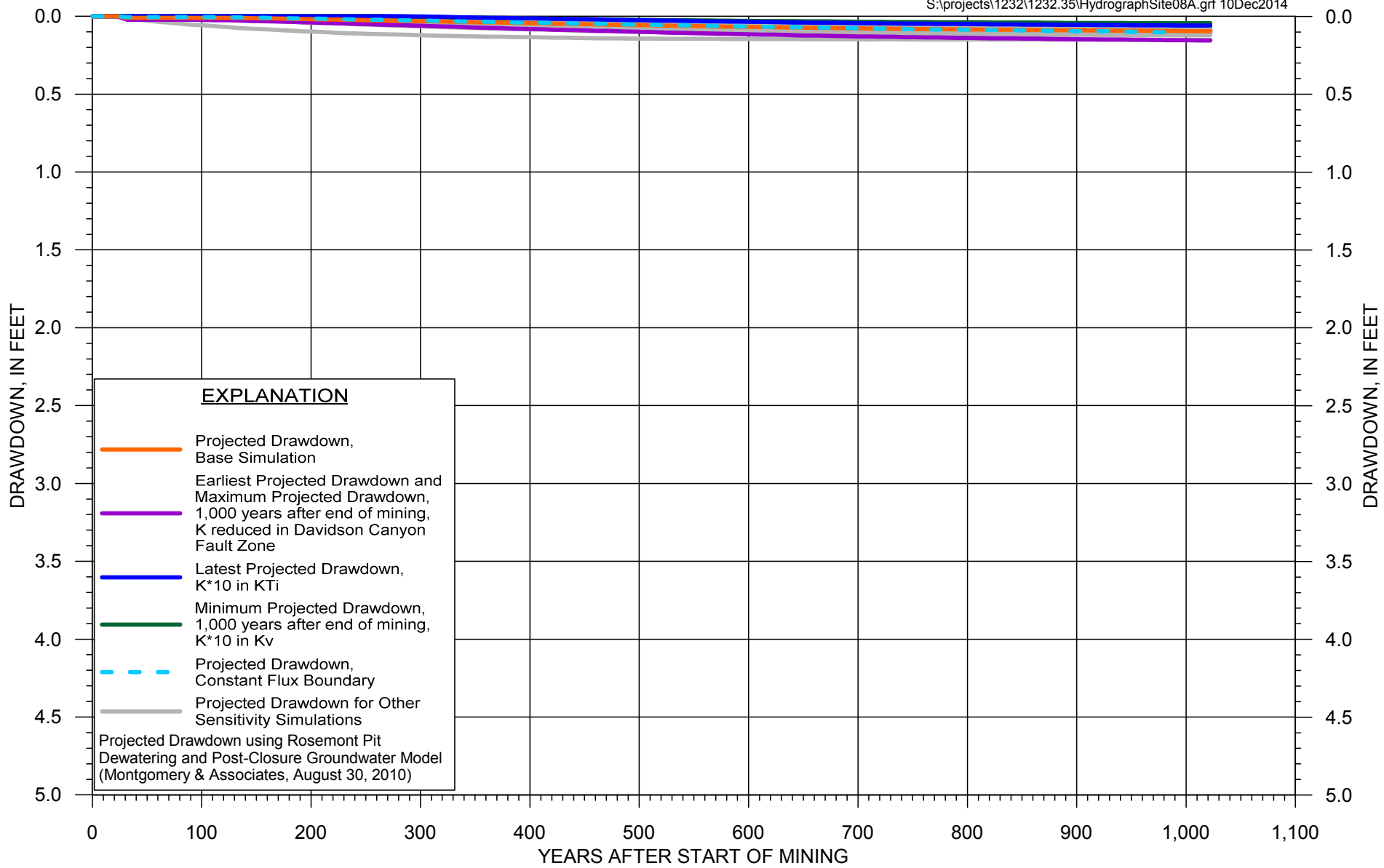


FIGURE A9. SENSITIVITY OF PROJECTED DRAWDOWN AT EMPIRE GULCH REACH 2 (EG2) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA

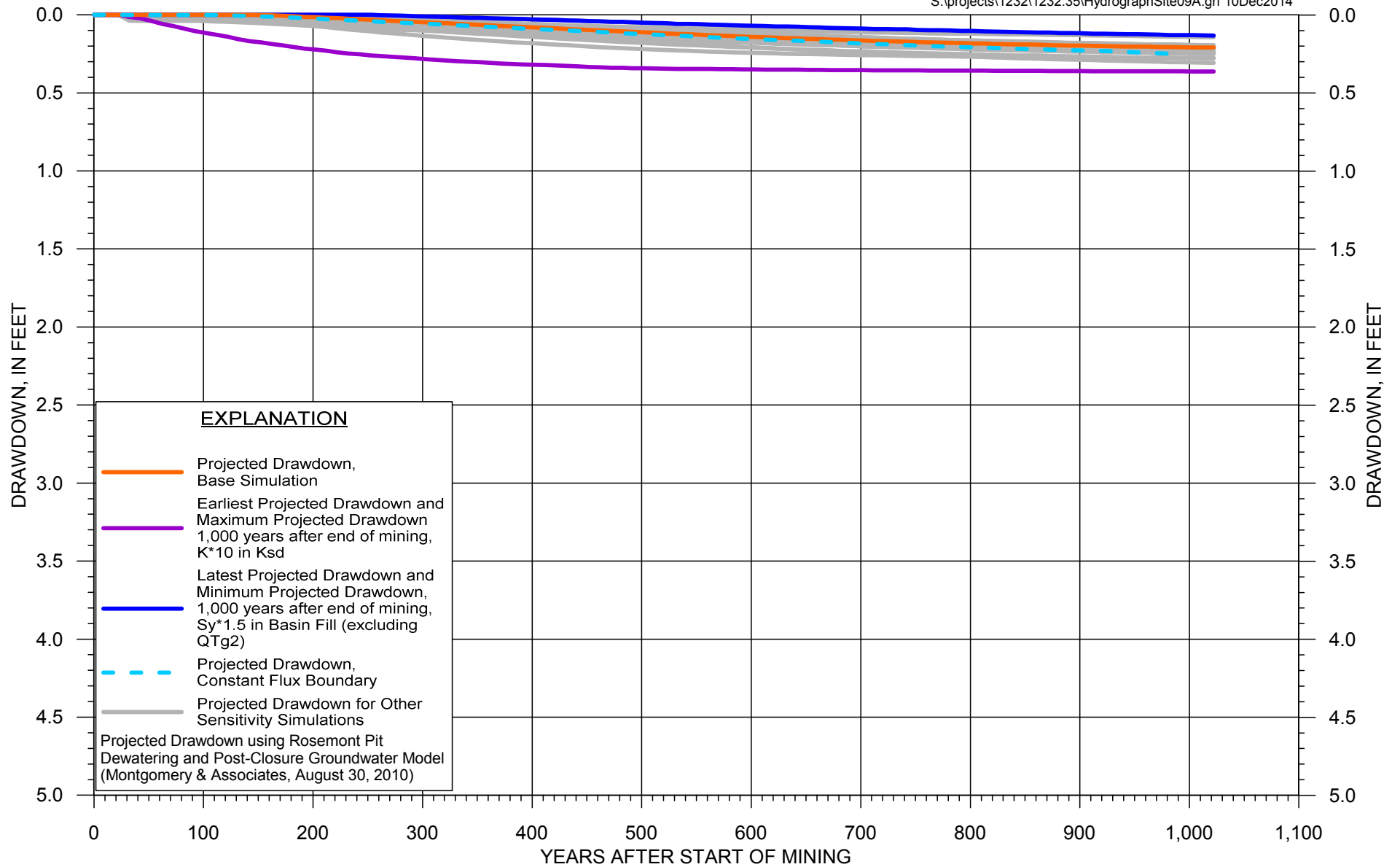
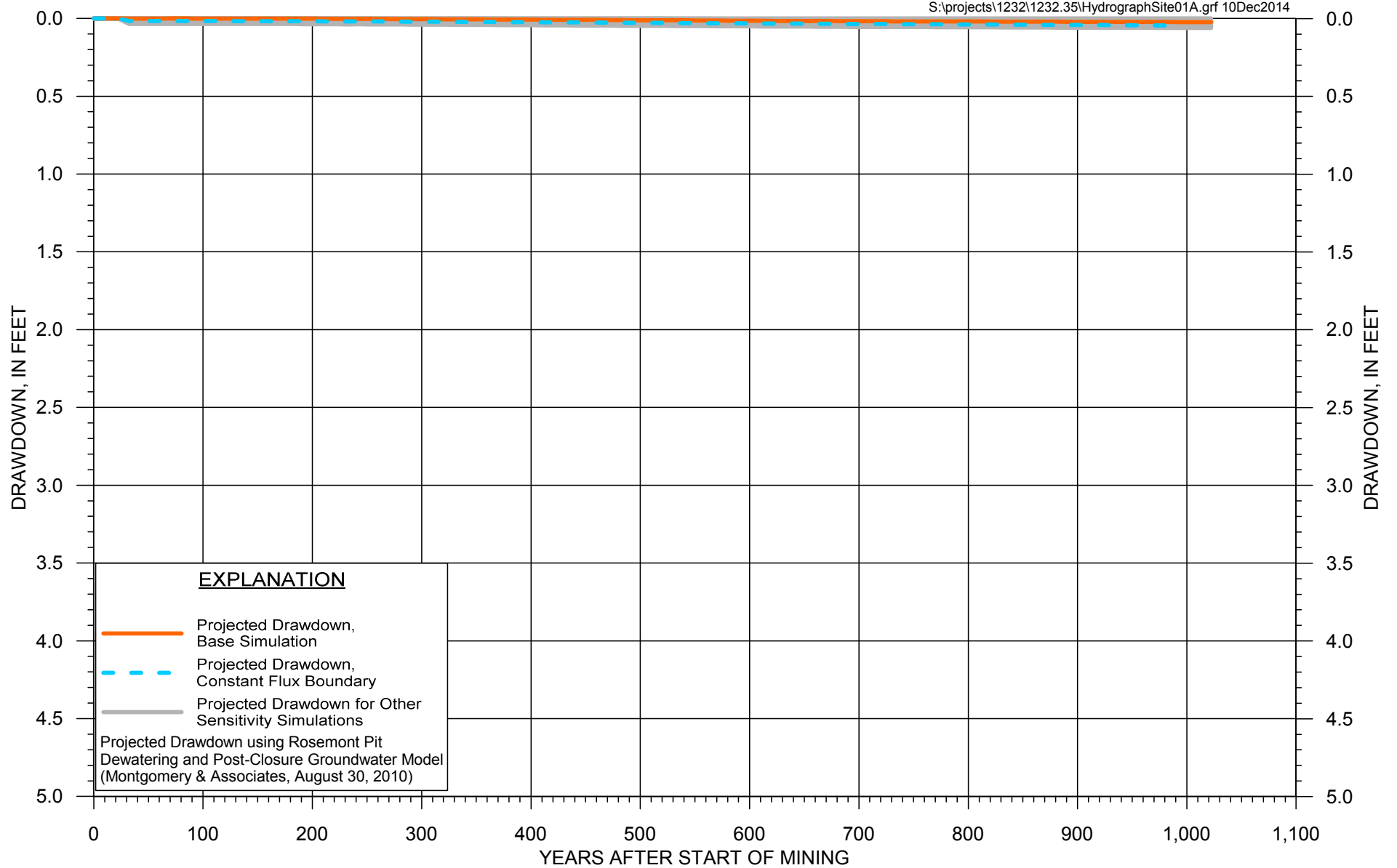


FIGURE A10. SENSITIVITY OF PROJECTED DRAWDOWN AT CIENEGITA WETLANDS (CGW) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA



**FIGURE A2. SENSITIVITY OF PROJECTED DRAWDOWN AT CIENEGA CREEK REACH 2 (CC2)
ROSEMONT PROJECT, PIMA COUNTY, ARIZONA**

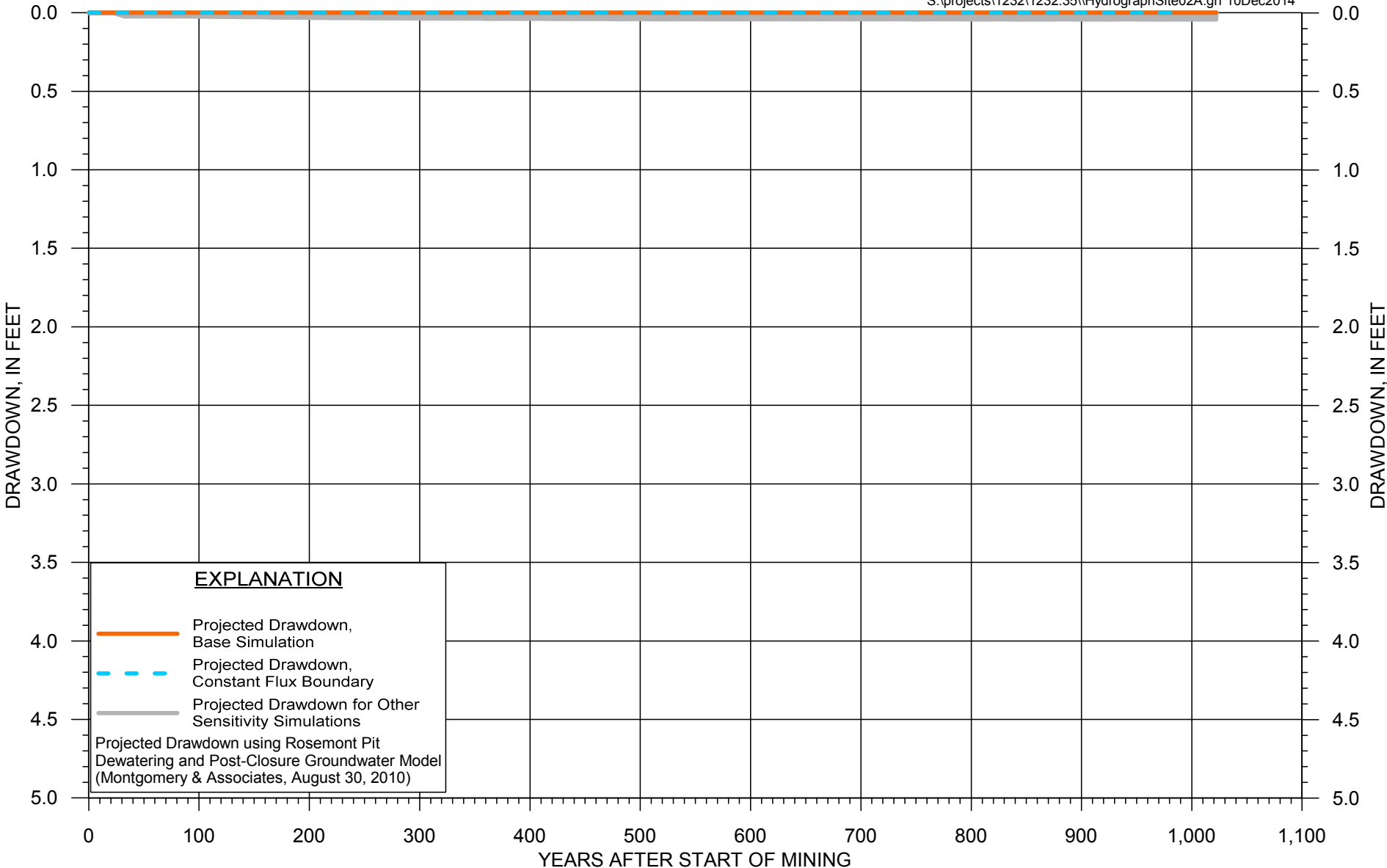


FIGURE A3. SENSITIVITY OF PROJECTED DRAWDOWN AT CIENEGA CREEK REACH 4 (CC4) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA

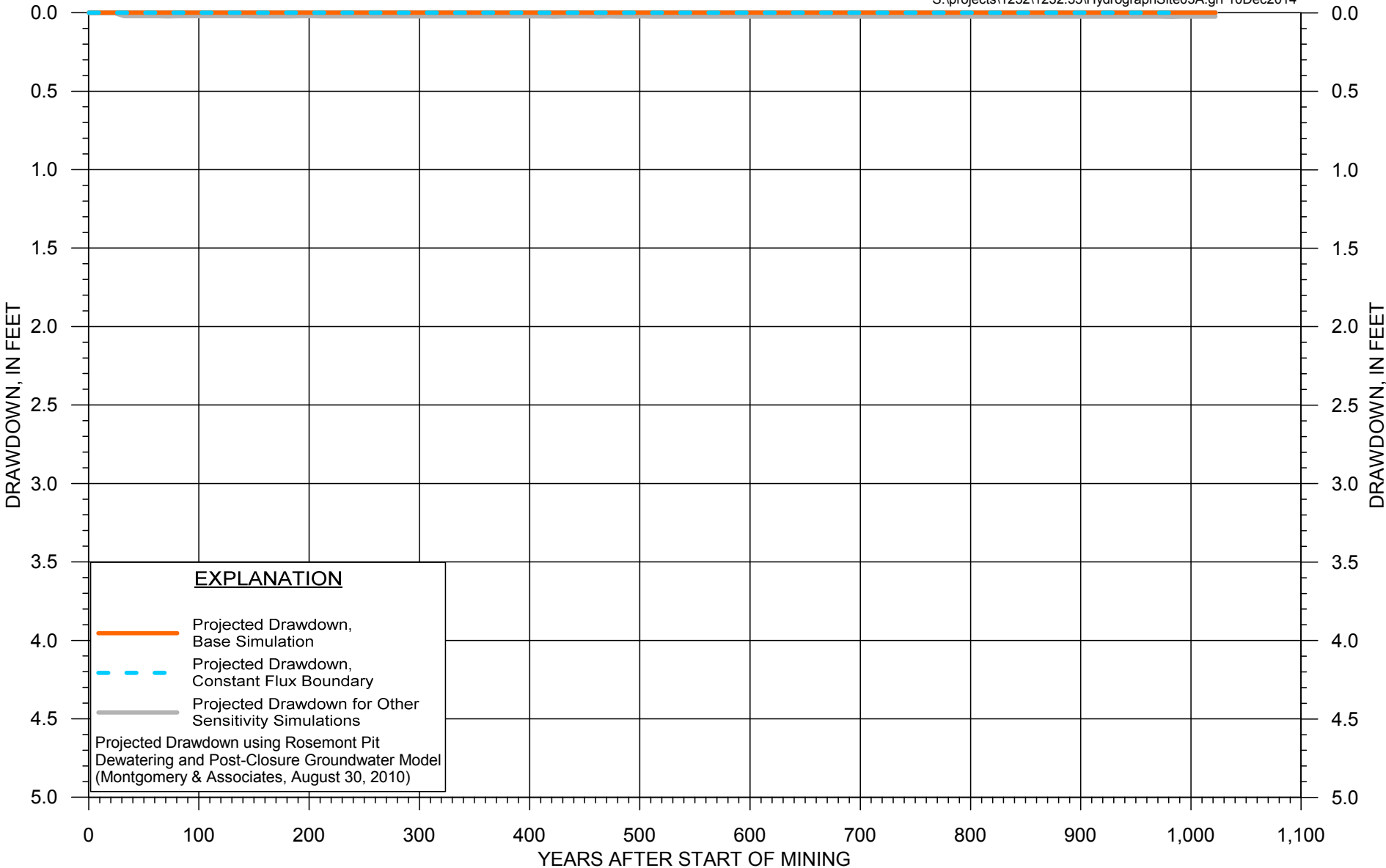
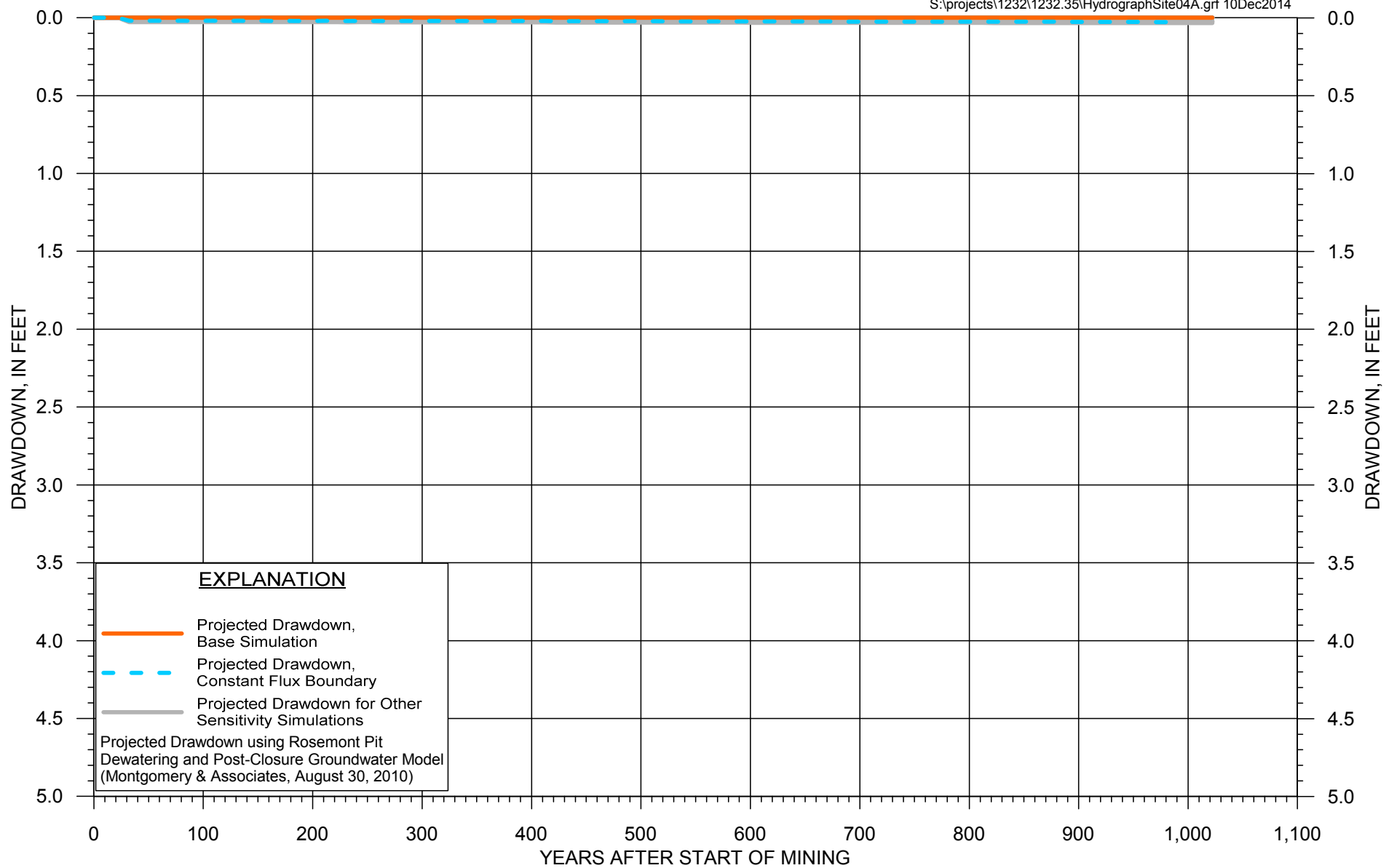


FIGURE A4. SENSITIVITY OF PROJECTED DRAWDOWN AT CIENEGA CREEK REACH 5 (CC5) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA



**FIGURE A5. SENSITIVITY OF PROJECTED DRAWDOWN AT CIENEGA CREEK REACH 7 (CC7)
ROSEMONT PROJECT, PIMA COUNTY, ARIZONA**

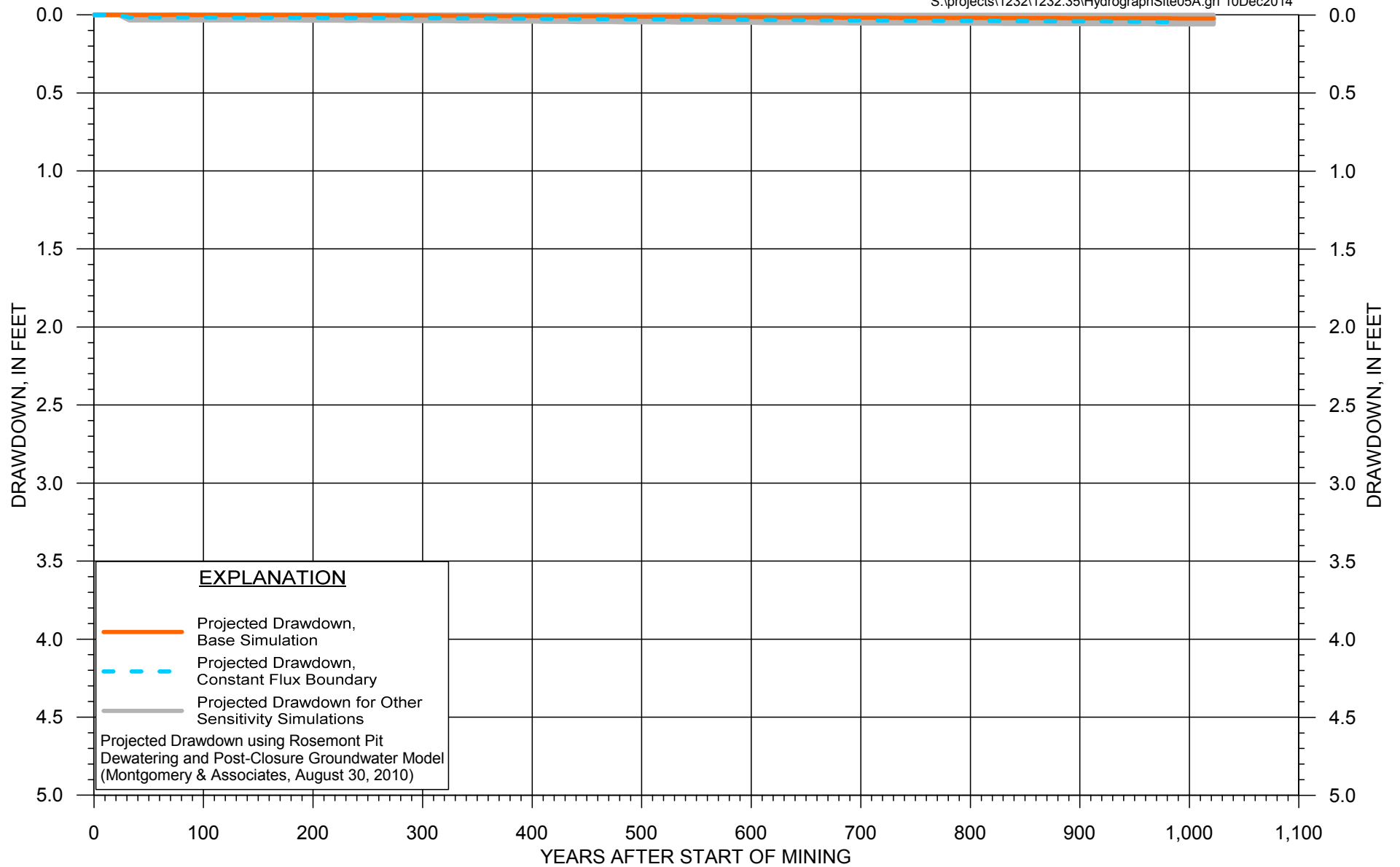


FIGURE A6. SENSITIVITY OF PROJECTED DRAWDOWN AT LOWER CIENEGA CREEK REACH 1 (LCC1) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA

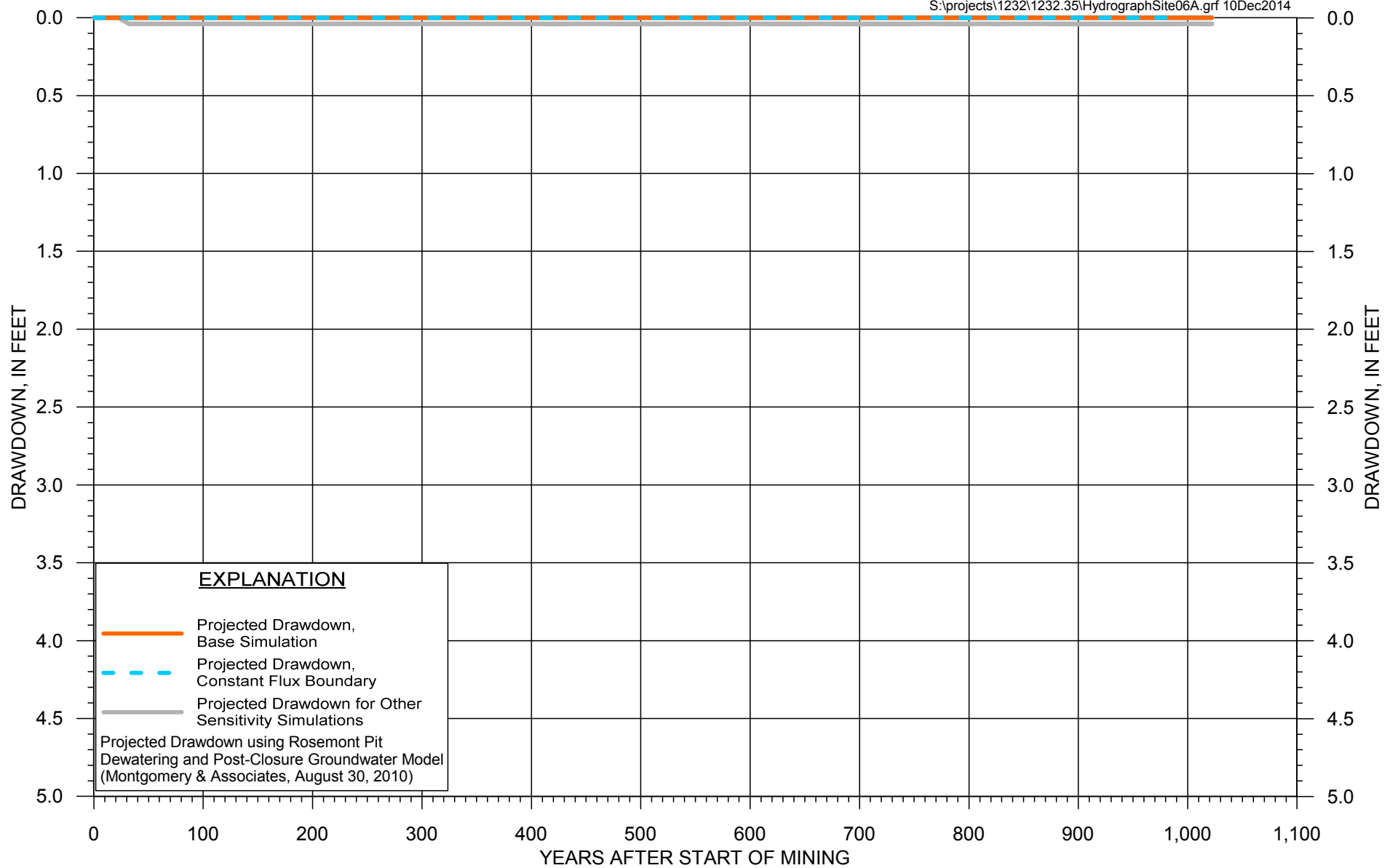


FIGURE A7. SENSITIVITY OF PROJECTED DRAWDOWN AT LOWER CIENEGA CREEK REACH 2 (LCC2) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA

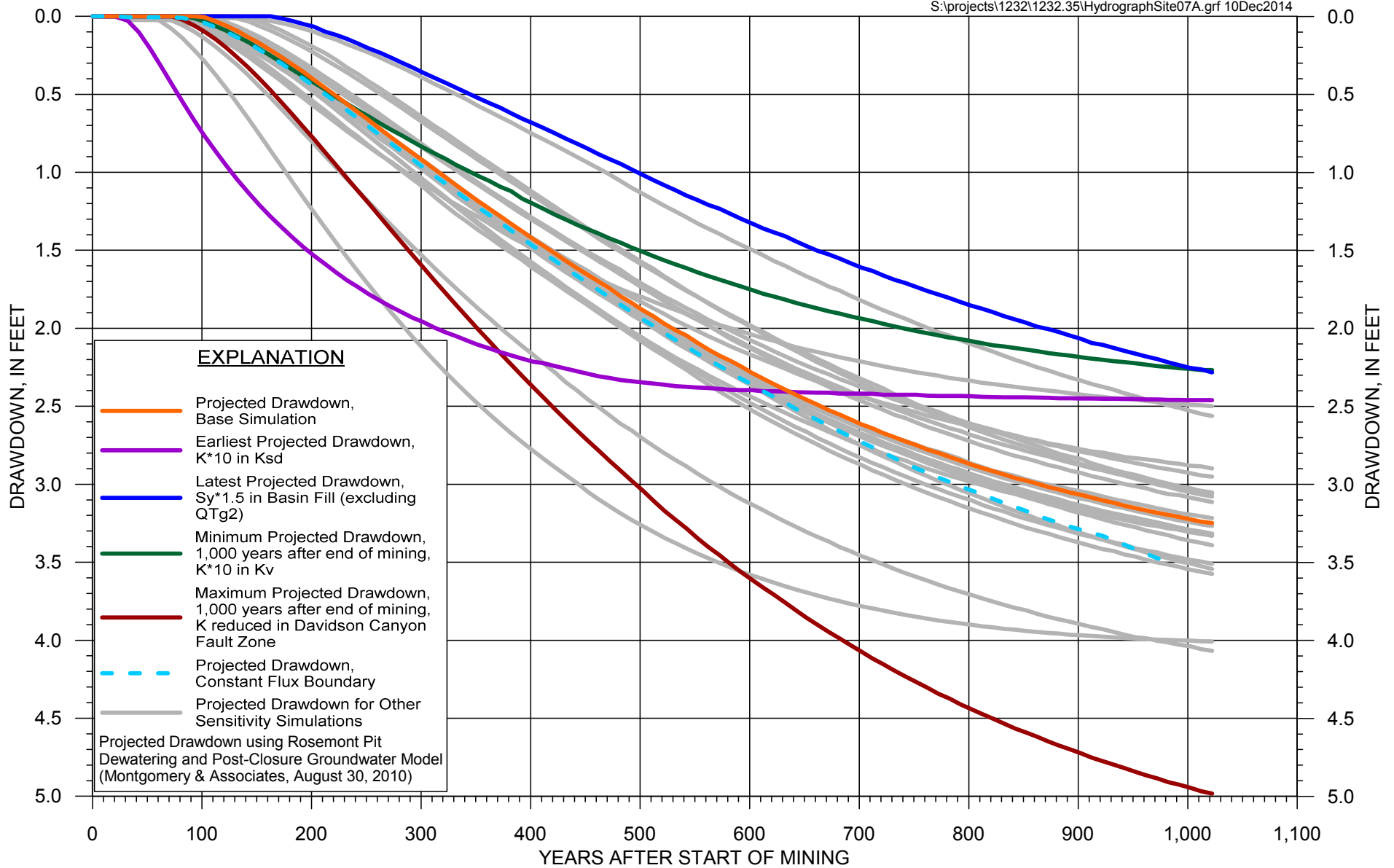
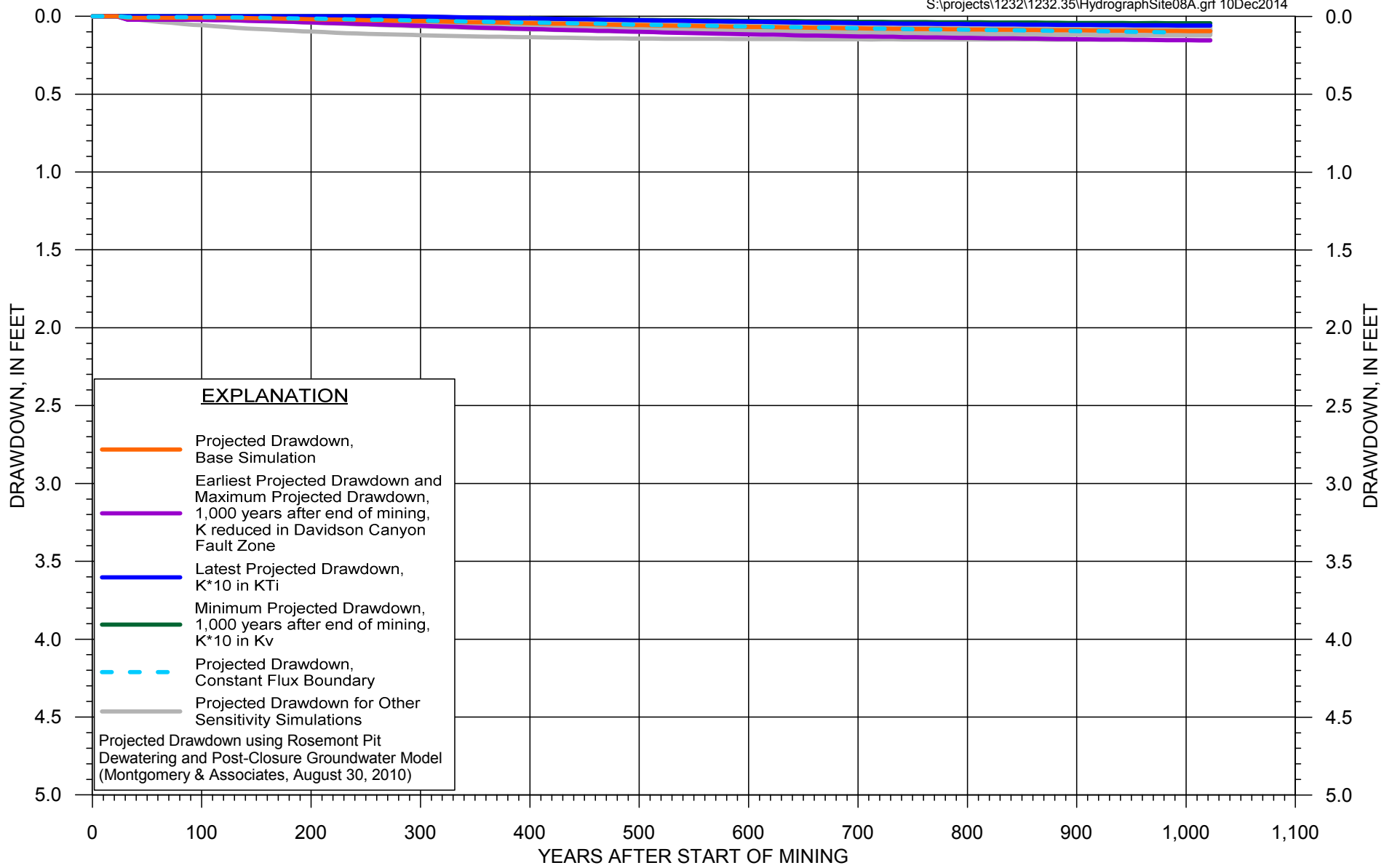


FIGURE A8. SENSITIVITY OF PROJECTED DRAWDOWN AT EMPIRE GULCH REACH 1 (EG1) ROSEMONT PROJECT, PIMA COUNTY, ARIZONA



**FIGURE A9. SENSITIVITY OF PROJECTED DRAWDOWN AT EMPIRE GULCH REACH 2 (EG2)
ROSEMONT PROJECT, PIMA COUNTY, ARIZONA**

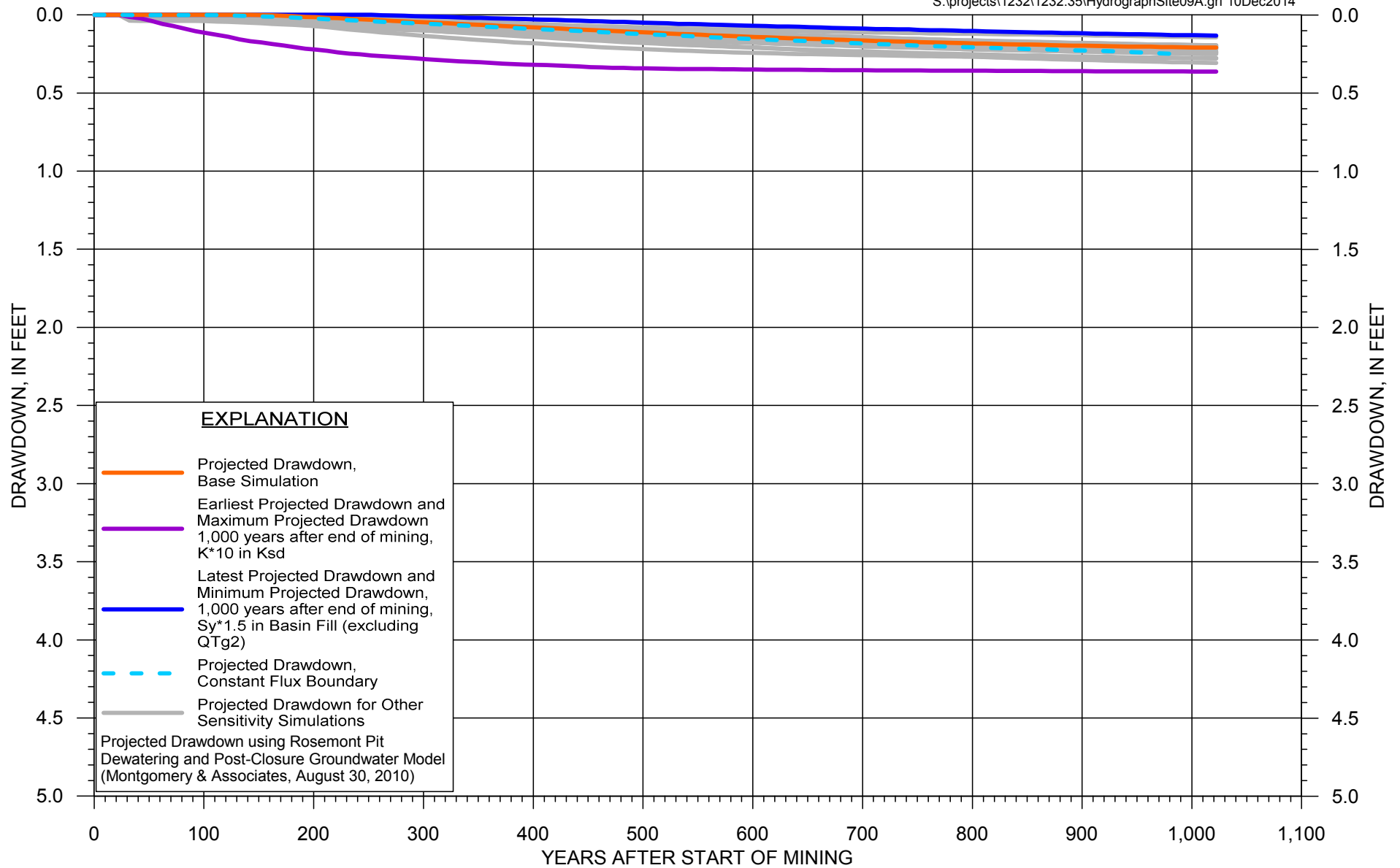


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