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Supplement of

Sea level rise in Los Santos and Los Angeles: a comparative flood analysis using Grand Theft Auto V

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Supplement

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AR5 RCP 2.6, no storm surge



Figure S1. Total area of Los Santos impacted by sea level rise under IPCC AR5 RCP 2.6 conditions without storm surge. Light blue: sea level rise of 0.53 m (2100). Orange: 0.85 m (2300). Vermillion: 1.02 m (2500). Each colour shows the cumulative flooded area at that level, including the area of the underlying layer. Colour classes follow the colour-blind-safe palette of Okabe and Ito (2008). Base map: community reproduction of in-game terrain from Grand Theft Auto V, © Rockstar Games; reproduced for scholarly comment and not covered by the CC BY licence of this article.

AR5 RCP 2.6 + storm surge



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Figure S2. Total area of Los Santos impacted by extreme sea levels under IPCC AR5 RCP 2.6 conditions with the historical storm surge (1.591 m, the maximum still-water level in the Los Angeles tide gauge record; NOAA, 2020). Light blue: combined extreme sea level of 2.12 m (2100). Orange: 2.44 m (2300). Vermillion: 2.61 m (2500). Each colour shows the cumulative flooded area at that level, including the area of the underlying layer. Colour classes follow the colour-blind-safe palette of Okabe and Ito (2008). Base map: community reproduction of in-game terrain from Grand Theft Auto V, © Rockstar Games; reproduced for scholarly comment and not covered by the CC BY licence of this article.

AR5 RCP 8.5, no storm surge



Figure S3. Total area of Los Santos impacted by sea level rise under IPCC AR5 RCP 8.5 conditions without storm surge. Light blue: sea level rise of 0.83 m (2100). Orange: 3.59 m (2300). Vermillion: 6.63 m (2500). Each colour shows the cumulative flooded area at that level, including the area of the underlying layer. Colour classes follow the colour-blind-safe palette of Okabe and Ito (2008). Base map: community reproduction of in-game terrain from Grand Theft Auto V, © Rockstar Games; reproduced for scholarly comment and not covered by the CC BY licence of this article.

AR5 RCP 8.5 + storm surge



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Figure S4. Total area of Los Santos impacted by extreme sea levels under IPCC AR5 RCP 8.5 conditions with the historical storm surge (1.591 m, the maximum still-water level in the Los Angeles tide gauge record; NOAA, 2020). Light blue: combined extreme sea level of 2.42 m (2100). Orange: 5.18 m (2300). Vermillion: 8.22 m (2500). Each colour shows the cumulative flooded area at that level, including the area of the underlying layer. Colour classes follow the colour-blind-safe palette of Okabe and Ito (2008). Base map: community reproduction of in-game terrain from Grand Theft Auto V, © Rockstar Games; reproduced for scholarly comment and not covered by the CC BY licence of this article.

AR6 SSP1-2.6, Los Angeles tide gauge



Figure S5. Total area of Los Santos impacted by sea level rise under IPCC AR6 SSP1-2.6 projections for the Los Angeles tide gauge (PSMSL station 245). Light blue: 0.33 m (2100). Orange: 0.53 m (2150). Vermillion: 2.12 m, the 2150 value with the historical storm surge (1.591 m, the maximum still-water level in the Los Angeles tide gauge record; NOAA, 2020) added. AR6 provides no station-level projection beyond 2150. Each colour shows the cumulative flooded area at that level, including the area of the underlying layer. Colour classes follow the colour-blind-safe palette of Okabe and Ito (2008). Base map: community reproduction of in-game terrain from Grand Theft Auto V, © Rockstar Games; reproduced for scholarly comment and not covered by the CC BY licence of this article.

AR6 SSP5-8.5, Los Angeles tide gauge



Figure S6. Total area of Los Santos impacted by sea level rise under IPCC AR6 SSP5-8.5 projections for the Los Angeles tide gauge (PSMSL station 245). Light blue: 0.63 m (2100). Orange: 1.10 m (2150). Vermillion: 2.69 m, the 2150 value with the historical storm surge (1.591 m, the maximum still-water level in the Los Angeles tide gauge record; NOAA, 2020) added. AR6 provides no station-level projection beyond 2150. Each colour shows the cumulative flooded area at that level, including the area of the underlying layer. Colour classes follow the colour-blind-safe palette of Okabe and Ito (2008). Base map: community reproduction of in-game terrain from Grand Theft Auto V, © Rockstar Games; reproduced for scholarly comment and not covered by the CC BY licence of this article.