

Impact of water developer charges on vacant land and housing prices in NSW

23 February 2024

We have conducted research to assess the impact of water, wastewater and stormwater developer charges (water developer charges) on the price of vacant land and housing in NSW.

This factsheet summarises our methodology and key findings.

Key Findings

1. The NSW Government's decision to set water developer charges to \$0 in 2008 resulted in a statistically significant increase in the price of vacant land in areas of NSW subject to the policy change, compared to areas of NSW where no policy change occurred. The increase in the price of vacant land was similar in dollar value to the reduction in water developer charges.
2. The NSW Government's decision to set water developer charges to \$0 in 2008 did not lead to a statistically significant change in the price of housing in areas of NSW subject to the policy change, compared to other capital cities in Australia where no policy change occurred.

Overall, our research finds that the reintroduction of water developer charges in NSW is likely to result in lower vacant land prices. It is unlikely the reintroduction of these charges will impact housing prices (nor worsen the current housing affordability crisis). This is in line with the general findings from the empirical literature on this topic.

1 Why we conducted this research

The NSW Government has committed to a 4-year phased reintroduction of water developer charges for the Sydney Water Corporation (Sydney Water) and the Hunter Water Corporation (Hunter Water). These water developer charges were set to \$0 in 2008 by a Ministerial Direction.¹

The consequence of these charges being set to \$0, is that since in 2008, Sydney Water's and Hunter Water's additional costs to provide water, wastewater and stormwater infrastructure for new developments have not been recovered from developers, but from all water customers through quarterly bills.²

Since the Government's decision to reintroduce developer charges, Sydney and Hunter Water prepared and exhibited Development Service Plans (DSPs) which set out the developer charge levels that would apply when the phase-in period was complete. IPART's role is to decide whether to register these DSPs. Once registered, they come into force. In making the registration decision, IPART has had regard to the submissions made to Sydney Water and Hunter Water during the exhibition period. Numerous submissions claimed that the reintroduction of these water developer charges would increase the price of housing in NSW and worsen the current housing affordability crisis in NSW.³

We conducted this research to understand the social and economic impacts of the reintroduction of water developer charges and assess whether it is likely they will worsen the housing affordability crisis.

2 What does the literature say on this topic?

There is a notable body of empirical literature that considers the cost incidence of developer charges.^a A recent survey of this literature by Frontier Economics found that if developers are aware of the charges before they purchase land to develop, the charges do not impact new or established housing prices.⁴

The literature generally finds the burden of paying developer charges of all sorts (including water developer charges) falls on landowners through lower vacant land prices or on developers through reduced margins, but not on home buyers through higher house prices.⁵

3 Our research methodology

We used the 2008 reduction in water developer charges to conduct a natural experiment^b to assess the impact of this policy change on the price for vacant land and housing in NSW.

Prior to the policy change in 2008, the average water developer charge per lot of land was around \$12,500 in the Sydney Water service area and around \$11,800 in the Hunter Water service area.^c

^a Water developer charges are just one type of developer charge. Much of the empirical literature considers the total value of developer charges rather than just one component (such as water developer charges).

^b Natural experiments are observational studies which are used to assess the impacts of policy interventions. These experiments are often possible where there is a difference in law or policy between jurisdictions. This allows a comparison between two similar groups (a treatment group subject to the law or policy change and a control group that did not experience the law or policy change), where the primary difference across the groups is due to the law or policy change.

^c Prior to the policy change, the average water developer charge per equivalent tenement (ET) was around \$3,500 for areas serviced by Sydney Water and around \$3,300 for areas serviced by Hunter Water. Areas zoned for medium or high-density residential housing, will accommodate more than one ET per lot of land. We analysed data on dwelling density in NSW and found the average dwelling to lot ratio is around 3.6. This means the average developer water charge for a lot of land would be around \$12,500 in the Sydney Water service areas (\$3,500 x 3.6) and \$11,800 in the Hunter Water service areas (\$3,300 x 3.6).

We used a difference-in-difference regression methodology to assess the effect of the policy change that set these water developer charges to \$0.^d

3.1 Methodology to assess the effect of changes in water developer charges on vacant land prices in NSW

We analysed vacant land sales data in NSW from 2007 to 2010 (before and after the 2008 policy change). We compared the price of vacant land in areas where water developer charges were set to \$0 (the treatment group) to areas where there was no change in developer charges (the control group).

This allowed us to see if the reduction in water developer charges had a statistically significant impact on vacant land prices. We also controlled for a range of other variables including land size, year of sale and location.

3.2 Methodology to assess the effect of changes in water developer charges on housing prices in NSW

We analysed housing price trends from 2007 to 2010 (before and after the 2008 policy change) by comparing the CoreLogic Seasonally Adjusted Hedonic Home Value Index for the Greater Sydney area (the treatment group) to the All-Capital Cities Index (the control group).

This enabled us to see if the reduction in water developer charges in Greater Sydney had a unique effect on house price in this region compared to other capital cities that were not subject to the policy change.

4 Our findings

4.1 The reduction in water developer charges led to a statistically significant increase in vacant land prices

The removal of water developer charges in 2008 led to a statistically significant increase in the price of vacant land.

Prices in areas subject to the policy change increased between 4.6% to 5% per vacant lot, compared to areas where there was no change in water developer charges. This equated to an increase in the price of vacant land between \$9,964 and \$12,667 per lot. These dollar values are similar to the average value of the developer charges that the 2008 policy removed. The reduction in water developer charges did not lead to a statistically significant change in house prices.

^d Difference-in-differences (DiD) regression is one of the most widely used quasi-experimental tools for measuring the impacts of development policies. In a DiD regression estimation, a researcher compares the change in outcomes in a (non-random) treatment group before and after treatment to the change in outcomes in a comparison group (control group) over the same time period.

We found no statistically significant change in the housing price index for the in Greater Sydney area compared to the All Australian Capital Cities index.

5 Conclusions

Overall, our statistical analysis found that:

- vacant land holders obtained the benefit created by the removal of developer charges in 2008 (through higher vacant land prices), and
- the removal of water developer charges in 2008 did not impact house prices.

In line with this finding, we expect the cost burden of the reintroduction of developer charges will be primarily borne by owners of vacant land and will not impact housing prices.

This is consistent with the balance findings in the academic literature on the topic of who bears the cost of developer charges.

¹ NSW Treasurer, *Letter on the reintroduction of water, wastewater and stormwater services*, 1 January 2022.

² Edgerton, M and Cifuentes, A, *Water infrastructure that is efficiently and fairly funded*, Frontier Economics Bulletin, June 2023.

³ For example, see Sydney Water, *What we heard: Submissions on our draft water and wastewater infrastructure contributions*, August 2023, p 7; Hunter Water, *Developer charges: Public exhibition summary report*, November 2023, p 2.

⁴ Edgerton, M and Cifuentes, A, *Water infrastructure that is efficiently and fairly funded*, Frontier Economics Bulletin, June 2023.

⁵ Edgerton, M and Cifuentes, A, *Water infrastructure that is efficiently and fairly funded*, Frontier Economics Bulletin, June 2023.