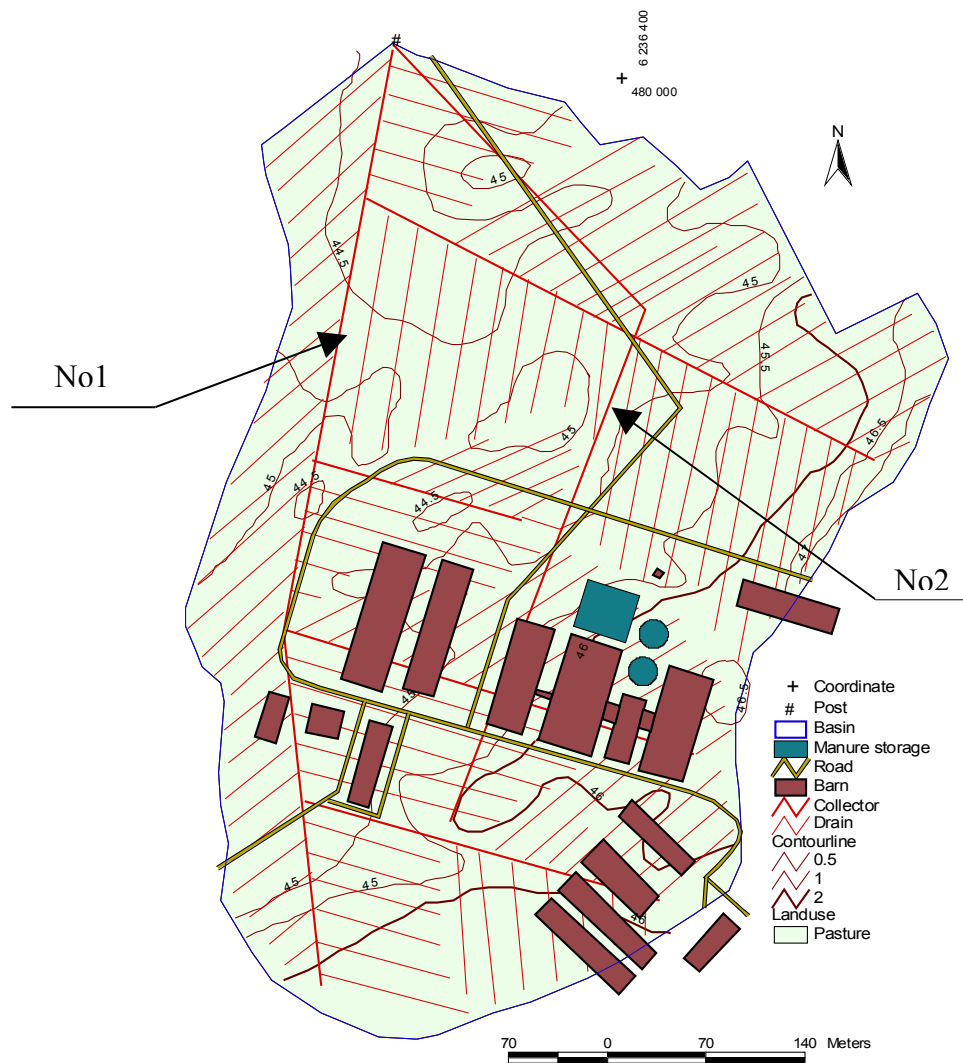


WATER QUALITY AFTER CONSTRUCTION OF MANURE STORAGE

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Water quality of subsurface drainage systems and groundwater in the territory of cow barn has been analysed in an agricultural company in Lithuania. It was determined that nutrient leaching (to subsurface drainage as well as to groundwater) from the territory of the cow barn has decreased substantially after construction of manure storage. Besides, the results of the water quality measurements have been successfully used for calculation of nitrogen load to surface waters per animal unit (average load leached from the territory of cowbarn to drainage systems was 1.6 kg of nitrogen and 0.07 kg of phosphorus per one cow on average after construction of the manure storage).

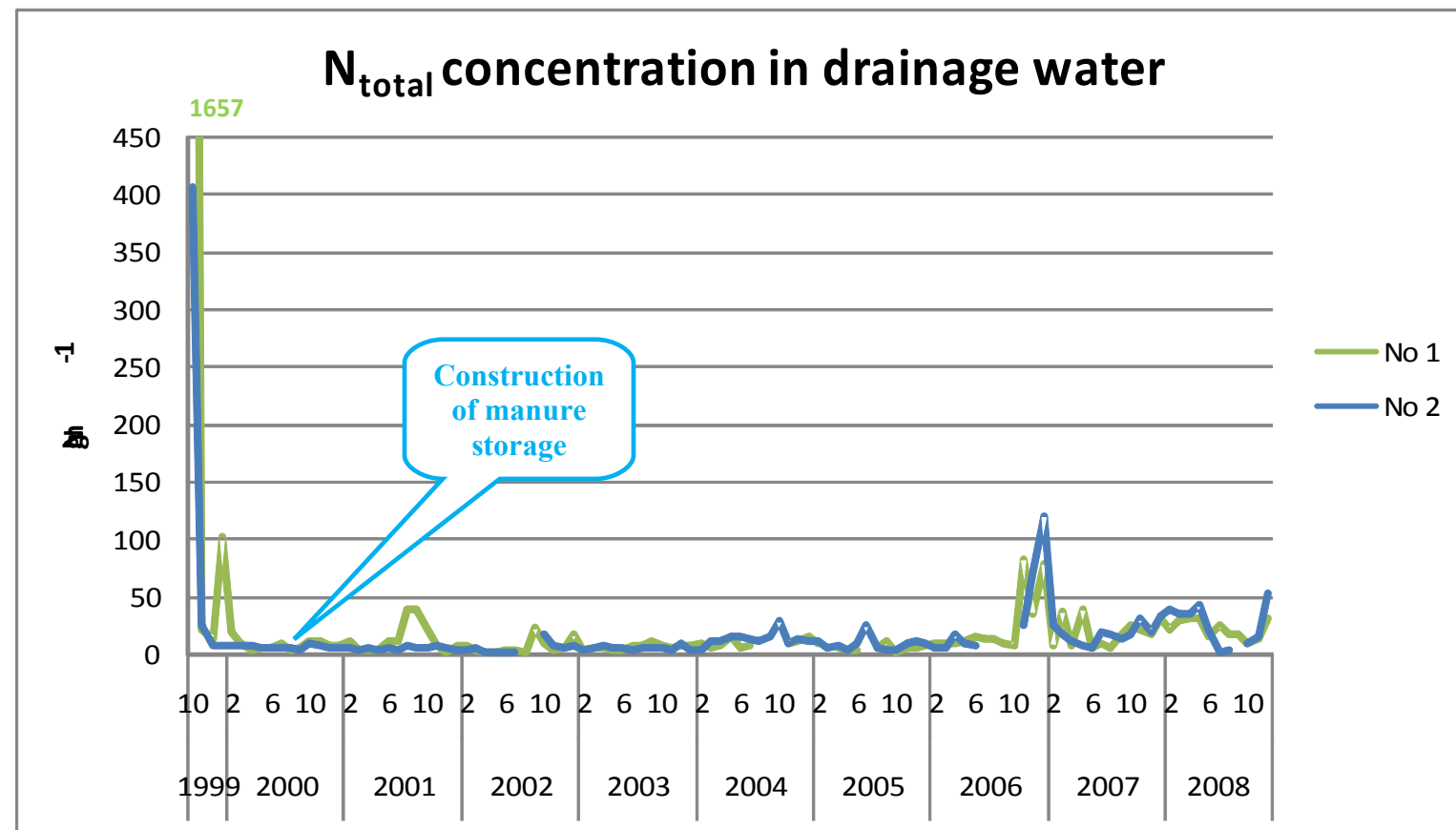


Before



After construction of manure storage and slurry pit





Application of slurry on grass-fields

| Mean monthly load (via drainage) | | |
|----------------------------------|--|--|
| | N _{total} kg ha ⁻¹ | P _{total} kg ha ⁻¹ |
| 1999 | 86,3 | 0,56 |
| 2000 | 2,7 | 0,26 |
| 2001 | 1,9 | 0,30 |
| 2002 | 1,3 | 0,40 |
| 2003 | 0,9 | 0,10 |
| 2004 | 1,6 | 0,19 |
| 2005 | 0,7 | 0,03 |
| 2006 | 1,6 | 0,04 |
| 2007 | 25,5 | 0,32 |
| 2008 | 3,3 | 0,09 |

