

LAUNDRY STAINED BY RUST IN THE TOWN WATER SUPPLY POLICY



Responsible Department: Infrastructure Delivery
Responsible Section: Water Services
Responsible Officer: Manager Water Services

Objective

This policy describes Council's position in relation to claims for compensation from residents (or visitors) whose washing is stained as a result of iron deposits that naturally occur in the Shire's various town water supplies. This policy applies to all town water users in the Narrabri Shire Council area. Council is to provide current information on the effect of the naturally occurring iron deposits on washing, information on how to deal with them on a personal level, and information on how to make the information widely available.

Introduction

Iron and manganese are common metallic elements found in the earth's crust. Water percolating through soil and rock can dissolve minerals containing iron and manganese and hold them in solution. Iron and manganese are non-hazardous elements that are a nuisance in a water supply because of the staining properties.

Oxidation of dissolved iron particles in water changes the iron to white, then yellow and finally to red-brown solid particles that settle out of the water. These sediments are responsible for the staining properties of water. These precipitates or sediments may be severe enough to block water pipes.

Iron can affect the flavour and colour of food and water. It may react with tannins in coffee, tea and some alcoholic beverages which affects both taste and appearance.

Iron will cause reddish-brown staining of laundry, porcelain, dishes, utensils and even glassware. Soaps and detergents do not remove these stains, and use of chlorine bleach and alkaline builders (such as sodium and carbonate) may intensify the stains.

Iron and manganese deposits will build up in pipelines, reservoirs and filters and this reduces the available quantity and pressure of the water supply. When built up iron deposits and the velocity of water flow reach a critical point, or when work is carried out on pipelines, the iron deposits are disturbed and transported to various outlets.

Source: <http://www.water-research.net/iron.htm#options>

When Iron (rust) stains occur on clothes the following is recommended:

- **Don't dry them in the dryer** before treating the stains. Heat sets the stains and makes them difficult or impossible to remove. *Heat and chlorine bleach make the problem worse.*
- Rewash the clothes immediately in clear water with a heavy duty detergent. If the water in your water system is still discoloured, do re-laundering at another residence where the water is clear, if possible. If this does not work then.
- Launder with a commercial rust remover (such as RoVer®, Rit Rust Remover®, Iron-Out®, Miracle-Rid-Iron®, or Whink® Rust Stain Magic, Pro-Laundry Whitener™). The important ingredient in these products is an acid which is usually either oxalic or hydrofluoric acid (these acids can cause skin or eye irritation, burns, or poisoning). The active ingredients combine with the iron and loosen it from the fabric, then hold it in suspension in the wash water. The compounds are poisonous if ingested. They must be used carefully and according to the manufacturers' instructions. When finished **rinse the clothes thoroughly** as any acid remaining may deteriorate fabrics.
- Commercial rust removers are intended for use only on white or colourfast fabrics. **Test** coloured clothes for colourfastness before attempting to remove rust stains with commercial removers.

Source: <http://ohioline.osu.edu/hyg-fact/5000/5539.html>

Another remedy (not endorsed by Council but provided for information) to treat a load of laundry is:

- Use a five gallon bucket and pour in a gallon of white vinegar with 2-3 gallons of hot water. Add two cups of salt and mix thoroughly. (You'll want to set this bucket of vinegar mix either out in the back yard or in the garage in a well ventilated area because it will smell pretty vinegary!) Then put the clothing in by batches - 4-5 t-shirts, dishtowels with wash cloths - use your own judgment. Just be sure there's enough solution to thoroughly soak all of the stained items.
- Allow the garments or fabrics to "brew" in the vinegar solution overnight. Then drain and launder according to manufacturer's recommendations for the fabrics.

Note: 1 gallon is approximately equal to 4.5 litres.

Source: <http://www.mrsclennw.com/tips/removing-rust-stains.html>

Policy

Council will take the following steps to assist residents who have articles of their laundry damaged by iron (rust) in the towns water supply.

1. Provide information in the form of this policy on Council's website.
2. Provide a sufficient quantity of a commercial rust remover (and user instructions) to residents to remove rust stains from clothes. The product will be offered/provided when the resident brings the issue to the attention of Council staff.

Residents will be offered one or both of the following:

- Citric Based Remover
- Chemical Based Remover

3. Council will not replace any items that are damaged as a result of Rust stains, however where a resident within 100m radius of **planned work** (that involves a shut down to replace or install a water main) is not informed (as defined below) of the planned work, Council will reimburse dry cleaner expenses (up to the limit listed in Council Fees and Charges, \$50 per household at the time of drafting this policy) for any fabric item stained by rusty water, provided:
- the damage occurred within 24 hours of the commencement of the planned work, and
 - the resident/visitor has first tried the commercial rust removers provided by Council, and
 - the damaged item has been identified by Council staff before it is dry cleaned.

Informing Residents of Planned Work on a Water main

Planned work on a water main refers to work to replace or install a water main. It does not refer to work that routinely flushes a water main or repairing a damaged water main, (even if the damage is done whilst Council staff are working adjacent to, or in the vicinity of, a water main, but did not plan to disturb the water main).

When Council staff plans to shut down and replace or install a water main, staff will provide the following information:

- An estimate of the start and finish times for the shutdown.
- The details of the person to contact in relation to the shutdown.
- Advise the resident to flush their line when the water supply is restored until the water becomes clear, preferably opening their front garden tap.
- Alert the resident to the increased possibility of rust stains in laundry, 24 hours after the restoration of the water supply.
- Advise the resident that Councils website contains a policy on “Laundry Stained by Rust in the Town Water Supply”.

When fifty properties or less, are involved the information will be supplied by a letter box drop. In instances where more than fifty properties are involved the information shall be provided via a public notice in the local paper.

Flushing a Water Service after a Disturbance (Planned or Otherwise)

Council will not reimburse a resident the cost to flush their line following a disturbance in the line (planned or otherwise) which results in rusty water being delivered to a resident, because of the trivial cost involved (ie approximately 8.75 cents).

The average time a resident will need to flush their lines after a disturbance is about 5 minutes. The average flow of water in the various town water supplies is about 35 litres per minute. This equates to 175 litres needed to flush a house system at 83 cents per kilolitre.

Issuing of Commercial Rust Remover

To minimise the inconvenience to a resident the commercial rust remover will be delivered to the resident by a Council employee within 24 hours of the request being made (the product must be received by an adult). All issues of commercial rust removers must be registered on Councils Customer Services Request system. If the commercial rust remover is available in retail stores without a Material Safety Data Sheet (MSDS) being supplied, Council will not supply a MSDS.

Reimbursement of Dry Cleaning Costs.

Must be approved by the General Manager or a department Director.

References

- *Local Government Act (NSW) 1993.*

History

MINUTE NUMBER	MEETING DATE	DESCRIPTION OF CHANGE
680/2007	2 October 2007	Adopted
714/2009	20 October 2009	Reviewed
26/2012	21 February 2012	Reviewed
607/2013	3 September 2013	Reviewed
164/2017	15 August 2017	Reviewed