

ISSUER IN-DEPTH

6 December 2019



TABLE OF CONTENTS

Overview	
Profile	2
Summary	2
Rating outlook	2
Factors that could lead to an upgrade	2
Factors that could lead to a downgrade	3
Detailed credit considerations	3
Moody's related publications	5

Analyst Contacts

Christopher Bredholt +44.20.7772.1797

VP-Sr Credit Officer
christopher.bredholt@moodys.com

Julien Paolantoni +44.20.7772.5587 *Associate Analyst* julien.paolantoni@moodys.com

Kevin Maddick +44.20.7772.5218
Associate Managing Director
kevin.maddick@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Trans-Caledon Tunnel Authority Projects

TCTA project ratings reflect government ownership and support

Overview

On 14 November 2019 we assigned first time Ba1 long-term global scale issuer ratings, NP short-term global scale issuer ratings, Aa2.za long-term national scale issuer ratings and P-1.za short-term national scale issuer ratings to the following five bulk water projects of the Trans-Caledon Tunnel Authority (TCTA), with negative outlook:

- -TCTA Berg Water Project
- -TCTA Vaal River Eastern Sub-System Augmentation Project
- -TCTA Komati Water Scheme Augmentation Project
- -TCTA Mooi Mgeni Transfer Scheme Phase 2
- -TCTA Mokolo Crocodile Water Augmentation Project

For further details, see the rating action <u>press release</u>. We view the TCTA projects as government-related issuers (GRIs). The projects' credit risk profile derives primarily from their relationship with the <u>Government of South Africa</u> (Baa3 negative) because of the close operational and financial linkages between them.

The principal methodology used in these ratings was Government-Related Issuers published in June 2018. Please see the Rating Methodologies page on www.moodys.com for a copy of this methodology.

Moody's National Scale Credit Ratings (NSRs) are intended as relative measures of creditworthiness among debt issues and issuers within a country, enabling market participants to better differentiate relative risks. NSRs differ from Moody's global scale credit ratings in that they are not globally comparable with the full universe of Moody's rated entities, but only with NSRs for other rated debt issues and issuers within the same country. NSRs are designated by a ".nn" country modifier signifying the relevant country, as in ".za" for South Africa. For further information on Moody's approach to national scale credit ratings, please refer to Moody's Credit rating Methodology published in May 2016 entitled "Mapping National Scale Ratings from Global Scale Ratings". While NSRs have no inherent absolute meaning in terms of default risk or expected loss, a historical probability of default consistent with a given NSR can be inferred from the GSR to which it maps back at that particular point in time. For information on the historical default rates associated with different global scale rating categories over different investment horizons, please see http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_1174796.

Profile

TCTA is a 100% state-owned entity mandated with financing and implementing bulk raw water infrastructure projects of national importance. It is an agency of South Africa's National Department of Water and Sanitation (DWS). TCTA's shareholder is represented by the Minister of Human Settlements, Water and Sanitation and TCTA is overseen by the Parliamentary Portfolio Committee on Water and Sanitation. Each rated project is implemented on behalf of DWS and backed by contractual undertakings of DWS to step in and meet the project's debt obligations. These undertakings bind the National Revenue Fund in accordance with section 70 of the Public Finance Management Act No. 1 of 1999 (PFMA).

The projects comprise water-storage dams and transport pipelines together with associated infrastructure. TCTA is listed as a "major public entity" under Schedule 2 of South Africa's Public Finance Management Act 1 of 1999. TCTA's mandate is set out in (i) the Notice of Establishment of 1986 (Notice 2631 in Government Gazette No. 10545, dated 12 December 1986) and amended in 2000 (Notice 277 in Government Gazette No. 21017), and (ii) directives issued from the Ministry from time to time in terms of Section 103(2) of the National Water Act (Act No. 36 of 1998). We consider the projects to have a single credit profile, as each one benefits from contractual undertakings of DWS to step in and meet its debt obligations.

Summary

Moody's considers it is not possible to meaningfully assess the TCTA projects' credit profile on a standalone basis, given the close operational and financial linkages with the Government of South Africa and TCTA's public policy mandate with limited autonomy. The ratings reflect a top-down notching from the Government of South Africa's rating based solely on support.

The Ba1/NP and Aa2.za/P-1.za ratings reflect the following credit strengths: (1) each TCTA project's status as a wholly state-owned entity undertaking water projects of national importance on directives from the Minister of Human Settlements, Water and Sanitation; (2) contractual undertaking of DWS to step in and meet each TCTA project's debt obligations in the event of TCTA's failure to perform or early termination of the project; (3) tariff framework providing for full cost recovery from end users to ensure project debt can be repaid, updated annually to account for changes in water demand, funding costs, inflation, regulatory environment, amongst others.

The ratings also reflect the following credit challenges: (1) the lack of an explicit on-demand guarantee from the DWS or National Treasury, reflected in the one notch rating differential between the TCTA projects and the Government of South Africa; (2) the arrangements setting out DWS (and, by extension, National Treasury in the event DWS has insufficient funds) obligations to lenders have not been tested, and may be subject to delays; (3) broader stress at South African state-owned enterprises, notably Eskom (Eskom Holdings SOC Limited, B3 negative), which may cause the government to take a more selective approach to the provision of support; and (4) the projects are exposed to a degree of liquidity risk, albeit manageable in Moody's view.

Moody's highlights the following linkages between the rated TCTA projects and the government: (1) TCTA's activities as an agency of DWS are bound by directives issued by the Minister and its operational and financial discretion is restricted under its Notice of Establishment; (2) the rated projects pass all operating risks to DWS, which undertakes the operations directly as part of the broader national water network; (3) each project is entitled to receive a tariff designed to ensure it can meet its debt obligations, and the tariff is revised on an annual basis and payable by DWS irrespective of whether DWS collects payments from the end water users or passes on increases in the tariff; and (4) each project's business model is not designed to create profits, surplus or reserves as the tariff is set to ensure break-even over the debt repayment period.

Rating outlook

The outlook is negative, reflecting the negative outlook on the Government of South Africa's sovereign bond ratings.

Factors that could lead to an upgrade

» An upgrade of the Government of South Africa's sovereign bond ratings

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Factors that could lead to a downgrade

- » A downgrade of the Government of South Africa's sovereign bond ratings
- » Signs of DWS and/or National Treasury being unable or unwilling to provide timely support to the TCTA projects in periods of financial stress

Detailed credit considerations

Functions of TCTA are limited, and projects pass all operating risk to DWS

In the course of fulfilling the responsibilities set out in the Notice of Establishment and the directives that are given to it from time to time by the Minister, TCTA provides the following principal services: (1) structuring and raising project finance; (2) project management and implementation of water infrastructure (including design, construction and environmental compliance); (3) debt management; and (4) tariff setting.

TCTA implements off balance sheet financing of projects on a standalone basis and puts together the financing case and construction contract package for the DWS. Each project's revenue stream is designed to cover costs (including financing), but no profit is earned. For the rated projects, TCTA does not undertake any operation and maintenance activities – these are all passed on to DWS.

TCTA can only undertake projects on the instruction of the Minister and has a clear public policy mandate. In undertaking its duties, the Notice of Establishment allows TCTA to (inter alia): appoint staff, open its own bank accounts, borrow money (subject to restrictions, and approval by National Treasury if it is binding the National Revenue Fund). The Notice of Establishment stipulates that TCTA may not conclude a borrowing agreement conditional on the issue of a guarantee, indemnity or security which will bind the National Revenue Fund before the requirements of Section 70 of the PFMA have been met. TCTA is required to annually submit to the Minister of Finance a borrowing programme for the year.

DWS undertakes to 'step in' and meet TCTA's project debt obligations in event of TCTA failure to perform or early termination of the projects

For each TCTA project there is a separate:

- » borrowing limit authorisation from the Minister of Human Settlements, Water and Sanitation in concurrence with the Minister of Finance;
- » Implementation Agreement with DWS undertaking to meet TCTA's debt obligations in relation to the project; and
- » general ledger

Each Implementation Agreement with DWS sets out, inter alia:

- » the roles of TCTA and DWS in the planning and implementation of the projects;
- » DWS responsibilities for operating and maintaining the projects;
- » tariff framework elaborating (i) the calculation of the charges each project is entitled to receive from DWS (irrespective of whether DWS collects payments from the end water users); and (ii) future annual adjustments.
- » DWS undertakings to assume each project's debt obligations to lenders, in the event TCTA fails to fulfil any of its obligations under the various financing agreements or is disestablished.

In each Implementation Agreement, DWS undertakes to 'step in' and meet TCTA's project debt obligations in event of TCTA failure to perform or early termination of the project. TCTA's Notice of Establishment stipulates that TCTA may not conclude a borrowing agreement conditional on the issue of a guarantee, indemnity or security which will bind the National Revenue Fund before the requirements of Section 70 of the PFMA have been met. Accordingly, for each project, the Minister of Finance has formally concurred to the Minister of Water and Sanitation giving (1) undertakings to funders that DWS would step in and takeover TCTA's obligations

towards them if TCTA breaches finance agreements, and (2) undertakings to TCTA to make sure that TCTA is always sufficiently funded to enable it to repay its debt. Under the PFMA, TCTA and DWS are required to report annually on the projects to the Minister of Finance.

TCTA projects are subject to borrowing limits set by the Minister of DWS with concurrence of Minister of Finance.

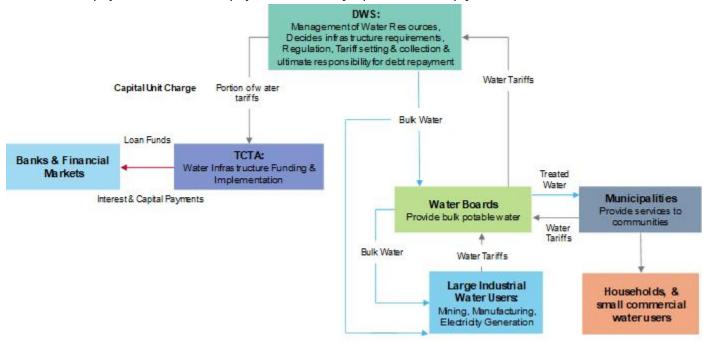
Tariff setting framework ensures full cost recovery and insulates projects from end user payment risk

Each project's revenue is determined by using a methodology recorded in the Implementation Agreements between TCTA and DWS, and designed to recover TCTA's costs incurred in connection with the projects, over a predetermined period of time or until debt is repaid in full. TCTA is entitled to receive revenue from DWS irrespective of whether DWS has in turn collected its billings from water users. TCTA is therefore not directly exposed to the offtake risk of the water boards/municipalities, as the revenue streams are paid by DWS directly. These entitlements are backed by Government undertakings in favour of the lenders.

TCTA does not directly undertake operations of the projects to be rated. DWS retains responsibility for operating the projects as part of an integrated system. Moreover, DWS pays for the O&M costs directly (i.e. TCTA does not pay and then recoup the O&M related costs).

TCTA's position in the water supply chain of South Africa is depicted in the schematic below:

Exhibit 1
TCTA undertakes projects on behalf of DWS; projects are not directly exposed to end user payment risk



Source: TCTA; Moody's

The Pricing Strategy deals with the pricing of bulk raw water including charges for TCTA projects. The Pricing Strategy comprises a set of Regulations published under the National Water Act and is reviewed and signed off by the Minister following a consultation process. The Pricing Strategy provides that the capital and associated costs of implementing bulk water resource infrastructure be recovered from water users benefiting from those schemes. To the extent that water boards, as water services providers, treat and supply such water to municipalities or water service authorities, the full cost thereof is expected to be recovered from the end users.

The TCTA projects have an annual tariff reset process. TCTA determines annually what is required to service the debt over its remaining life, expressed as a tariff which is provided to DWS annually to include in the raw water tariffs set for the various projects and systems.

In summary:

- » the tariff is set to repay the project costs within a reasonable period (normally 20 years) post construction. Project costs include capital costs, funding costs and administration costs. The payment and calculation of tariffs to TCTA is contractually agreed;
- » DWS has to pay TCTA regardless of payment received from the off-takers/users (i.e. DWS assumes the revenue risk). DWS also has to pay to TCTA the required revenue to service the debt, regardless of whether DWS is able to pass on tariffs or increases to the users;
- » triggers for a tariff adjustment include: variances between budget and actual for previous year; changes in forecast capital cost; changes in forecast water demand (DWS provides water demand forecasts to TCTA); changes in forecast funding cost (i.e. interest rates); changes in regulatory or legislative environment; changes in any input assumptions that increase/decrease final repayment date.

The Projects are exposed to liquidity risk, but this is manageable in our view

The TCTA projects rely on receiving timely payments from DWS and on the demand meeting projections (since the tariffs are set with respect to a forecast user demand profile). Historically, there have been some delays in receiving tariff payments from DWS. And, if demand is materially lower, then the tariff framework adjusts the tariff, but with a lag and repaid over the remaining debt repayment period. These events could give rise to a strain on a project's ability to service debt in a timely way.

TCTA does manage its liquidity position and can raise short-term funds if required. Each of TCTA's projects has authorization for a 10% liquidity buffer, which has been approved by the National Treasury. This entitles a project to raise 10% of outstanding debt as additional borrowing binding the National Revenue Fund, but TCTA must request National Treasury approval to utilize the headroom.

In practice TCTA can and does access a short-term commercial paper programme to manage day to day liquidity, and its projects have committed revolving credit facilities. The projects do not maintain cash funded reserve accounts.

Ultimately, however, we view the credit profile of each project to be underpinned by DWS undertakings in each Implementation Agreement, which also bind the National Revenue Fund, as discussed above.

Moody's related publications

- » Credit Opinion: <u>Government of South Africa Baa3 negative</u>: <u>Update following outlook change to negative from stable</u>, 1 November 2019
- » Rating Action: Moody's changes South Africa's outlook to negative from stable, affirms Baa3 ratings, 1 November 2019
- » Credit Opinion: <u>South African National Roads Ag. Ltd (The) (South Africa)</u>: <u>Update following outlook change to negative from stable</u>, 11 November 2019
- » Rating Action: Moody's takes rating actions on 11 South African sub-sovereign issuers, 7 November 2019
- » Rating Action: Moody's downgrades Eskom's unguaranteed ratings, negative outlook, 5 November 2019
- » Credit Opinion: Eskom Holdings SOC Limited, 18 April 2019
- » Issuer In-Depth: City of Cape Town (South Africa): Water strategy will strengthen resilience to climate change without exerting material credit pressures, 20 March 2019

© 2019 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS ON THAT EACH INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT

CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER

1201792

CLIENT SERVICES

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

