

## **Proposal**

# **Auctioning Hunter River Salinity Trading Scheme Credits**



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# Proposal

## Auctioning Hunter River Salinity Trading Scheme Credits

The Department of Environment and Conservation (NSW)<sup>1</sup> is preparing to auction 200 Hunter River Salinity Trading Scheme (HRSTS) credits in early 2004. This paper outlines the auction objectives, an auction proposal and timetable.

We would like your feedback on this proposal. Our contact details are listed on the back page of this paper. Please send any comments by Friday, 19 December 2003.

The HRSTS was introduced to reduce salinity in the Hunter River. The scheme ensures that Hunter River salinity targets are not exceeded due to saline discharges from facilities with Environment Protection Licences. Participants may only discharge when the river is in 'high' or 'flood' flow and they must hold enough credits (in accordance with the scheme rules) to cover the amount salt they wish to discharge. If a participant wishes to discharge more than their credit holding permits, they must acquire credits from others who do not need to discharge into a particular discharge event.<sup>2</sup>

The HRSTS was made permanent on 1 December 2002, via the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002* (the Regulation). Under the Regulation, NSW Government must auction 200 new salinity credits every two years to replace those that are about to expire and complete the first auction before the end of June 2004. Auctions ensure that new participants are given access to credits and provide an on-going incentive for industry to invest in strategies that reduce their need to discharge saline water.

The HRSTS leads the world in using economic instruments for the effective protection of waterways. The scheme has been responsible for significantly reducing river salinity at a time when there has been considerable growth in industry. The river now has less salt than many bottled mineral waters. This allows agriculture, mining and electricity generation to operate side by side, sharing the use of the river.

### 1 Auction objectives

The draft auction process was designed to:

- a) distribute credits to those who value them most
- b) provide equal access for all bidders, including new entrants to the market
- c) clear all 200 credits (so the NSW Government is not left with any credits at the end of the auction).

To ensure these objective are met, the suggested auction process:

- a) allows bidders to learn about the auction process and the market value of credits as the auction proceeds
- b) ensures bids are genuine and reduces the possibility of bidders defaulting on a winning bid
- c) includes safeguards against anti-competitive behaviour.

Regardless of how new credits are allocated by the auction process, participants can continue to purchase credits from other credit holders as needed after the auction, using the on line trading website (which can be found at [hrs1.epa.nsw.gov.au/default.html](http://hrs1.epa.nsw.gov.au/default.html)).

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<sup>1</sup> The Environment Protection Authority (EPA) is part of the Department of Environment and Conservation. The EPA continues to have obligations under legislation that enacts the HRSTS. To avoid confusion in this paper the EPA's responsibilities will be referred to as the Department's responsibilities.

<sup>2</sup> For a detailed explanation of how the scheme works and its requirements, see *Hunter River Salinity Trading Scheme – Working together to protect river quality and sustain economic development* (EPA, 2003), which can be found on the HRSTS website at [www.epa.nsw.gov.au/licensing/hrsts/hrsts.pdf](http://www.epa.nsw.gov.au/licensing/hrsts/hrsts.pdf)

## 2 Proposed auction format and associated rules<sup>3</sup>

The Department of Environment and Conservation (NSW) proposes to sell 200 new credits at a single auction in April 2004. Credits will have a 10-year life. Credits auctioned in 2004 will start on 1 July 2004 and expire at midnight on 30 June 2014.

The auction will be run over a day and conducted in the Hunter Valley, in a room big enough to physically accommodate all bidders. We will oversee the auction but will most likely commission another body with appropriate expertise (an auction house) to run it. Bidding may be done via computer terminals in the room. We may consider running a remote electronic auction (e.g. using the internet) once HRSTS participants are comfortable with the auction process (say in 2006).

### 2.1 Before the auction

Anyone wishing to bid at the auction will need to provide us with the following information to register as an auction bidder:

- a) Name and contact details of the individual that will be bidding<sup>4</sup>
- b) Name of organisation and Australian Business Number (if applicable), if bidding on behalf of an organisation. Parent companies may bid on behalf of their facilities.
- c) Organisation's registered address (or bidder's address if bidding as a private individual)
- d) Environment Protection Licence number (if applicable).

We will invite registered bidders to participate in a trial auction to familiarise themselves with the auction process. We may forego a trial in 2006 depending on feedback after the 2004 auction.

To reduce the potential for strategic bidding that could undermine the fairness of the auction, successful bidders will pay what they bid for their credits, rather than all bidders paying the same price for all credits. We will not set a reserve price. However, we may review this proposal after the first auction. A reserve might be set in the future to ensure that auction revenue covers the cost of running future auctions.

### 2.2 On the day of the auction

We will use a multiple round auction process that allows bidders to increase their bid a number of times before the auction closes. This format gives bidders the opportunity to work out the market value of credits as the auction proceeds.

- 1) Before the bidding starts, we will give each bidder a unique identification number (e.g. BD1).
- 2) At the beginning of each round, bidders would lodge their bid. Each bidder may lodge up to 3 bid(s) (on paper or via a computer terminal) according to the following rules:
  - a) All bids must state the amount of credits the bidder wants and the price they are prepared to pay for each credit (e.g. 10 credits at \$100 each).
  - b) Bids must be in whole credits and may range from 1 to 200 credits. There will be no cap on the amount of credits a single bidder can purchase.
  - c) Bids must be in whole dollars.
  - d) All bids must be genuine and cannot be withdrawn.

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<sup>3</sup> For ease of reading, the following says, "will" or "would" rather than "it is proposed that".

<sup>4</sup> Anyone will be able to purchase credits at the auction. This is in accordance with Clause 39 of the Regulation. The NSW Government made this commitment when it consulted on the draft Regulation. The reasons for this are detailed in the HRSTS Regulatory Impact Statement. See the HRSTS website, [www.epa.nsw.gov.au/licensing/hrsts/hrstsrjs.pdf](http://www.epa.nsw.gov.au/licensing/hrsts/hrstsrjs.pdf), for a copy of this document.

- 3) We will impose a time limit of 5 minutes per round for bidders to lodge their bids. We will give a 1-minute warning when each round is about to close to give all bidders a fair chance to complete their bid(s).<sup>5</sup> (We will look at the workability of this time limit during the trial auction.)
- 4) At the end of the round, we will sort bids from highest price to lowest price to produce a bid stack. For example the bid stack might look like table 1a.

*Table 1a: Bid stack at the end of a round<sup>6</sup>*

Bidder ID	Price offered	Number of credits wanted	Cumulative number of credits wanted starting from highest bid	Provisional credit allocation
BD1	\$100	20	20	20
BD4	\$85	40	60	40
BD3	\$60	25	85	25
BD5	\$50	30	115	30
BD1	\$40	30	145	30
BD7	\$25	45	<b>190</b>	45
BD2	\$20	16	206	5 (partially filled) – marginal bid
BD6	\$20	10	216	5 (partially filled) – marginal bid
BD3	\$10	20	236	0 – no additional credits this round
BD1	\$9	10	246	0 – no additional credits this round

Note: these are hypothetical prices only.

- 5) The top bidders that collectively want 200 credits would be the provisional successful bidders. At the end of the round, we would announce:
  - a) bidder identification numbers and the number of credits they have been provisionally allocated
  - b) the lowest fully allocated bid price and the lowest partially allocated bid price.

*Table 1b: Information reported at the end of a round (from the above example).*

Bidder ID	Provisional allocation of credits
BD1	20
BD1	30
BD2	5
BD3	25
BD4	40
BD5	30
BD6	5
BD7	45
Total credits offered (provisional)	200
Lowest fully allocated bid	\$25
Lowest partially allocated bid	\$20

Note: these are hypothetical prices only.

As well as providing any comments you would like to make, please comment specifically on whether you would like us to announce column 2 (price offered).

Each bidder will be able to see how many credits they have won (provisionally) at the end of each round. However, they will not know who the other successful bidders are. This reduces the potential for collusion. They will also be able to see what they need to bid to secure credits.

- 6) If there are not enough credits to meet all marginal bids the remaining credits will be distributed 1 at a time to each marginal bidder (up to their bid request) until they are all allocated. In the example in table 1a above, 10 credits will be distributed between marginal bidders BD2 and

<sup>5</sup> We may consider suspending the auction for a short time if a bidder needs to contact their organisation to seek approval to increase their spending budget.

<sup>6</sup> All credit prices in this paper are examples only. We do not know how bidders are likely to value credits during the auction.

BD6, who will receive 5 credits each. These are marginal bids because they both offered the same price and they collectively straddle the 200-credit line (in column 4).

In the same example, if BD2 offered more than \$20 (say \$21) then BD2 would be the only marginal bidder and would be provisionally allocated the remaining 10 credits. In the event of a tie for the final credit, preference will be given to those who lodged their bid first. We will record the time of each bid as it is received.

- 7) We will then invite bidders to lodge a new round of bids, that is, allow them to increase their bids to ensure that they get the number of credits they want. Successful provisional bids cannot be withdrawn, but can be replaced by another higher priced bid in subsequent rounds.

Bidders will not be required to bid in every round, that is, to increase their bid in each round. If a bidder decides not to bid in a specific round they may still bid in a later round. For example, if a bidder is happy with their provisional allocation of credits at the end of round 4 and does not bid in round 5, they may wish to bid again in round 6 if their successful bid (from round 4) is knocked out by higher bids at the end of round 5.

- 8) Again we will announce the provisional allocation of credits at the end of the new round.
- 9) Rounds continue until there are no new bids (up until the proposed time limit). That is, until bidders are happy with their allocation of credits or are not prepared to increase their bid to secure more credits. In the 2004 auction, we will announce when there have been no new bids to check that bidders do not want to place additional bids. However, we propose to set a time limit of three hours for completing the auction. Bidders will receive time warnings when there is twenty minutes, ten minutes, five minutes and one minute left to bid. Once the time limit is reached the auction will be closed.
- 10) At the end of the auction (once there are no new bids or the time limit has been reached), we will announce the names of successful bidders and their final allocation of credits.

### 2.3 After the auction

After the auction we will invoice successful bidders, who will have 30 days to settle their accounts. Successful bidders will pay what they bid for their credits, rather than all bidders paying the same price for all credits. This ensures that bidders lodge genuine bids. If all bidders paid the same clearing price, some bidders might be tempted to make a very high bid to ensure that they secure credits knowing they would only pay the clearing price.

All successful bids must be paid. That is, if a bidder has 2 successful bids they must pay for both bids. We will issue a single invoice to each successful bidder. For example, if table 2 below represents the final allocation of credits, bidder BD3 would pay for 46 credits (40 at \$350 each and 6 at \$179) and would receive an invoice for \$15,074.

*Table 2: Final credit allocation*

Bidder ID	Price offered	Number of credits wanted	Cumulative number of credits wanted starting from the highest bid	Credit allocation at the end of the auction
BD1	\$410	20	20	20
BD5	\$375	30	50	30
<b>BD3</b>	<b>\$350</b>	<b>40</b>	<b>90</b>	<b>40</b>
BD2	\$250	60	150	60
BD4	\$190	44	194	44
<b>BD3</b>	<b>\$179</b>	<b>6</b>	<b>200</b>	<b>6</b>

Note: these are hypotheticalal prices only.

All credit prices will include Goods and Services Tax (GST). We will remit the appropriate amount of GST to the Australian Taxation Office.

After the auction, we will ensure that all successful bidders are registered on the scheme's website as credit traders. Under the regulation, credits may only be transferred from the NSW Government to a registered credit trader. We will adjust the credit register once all successful bidders have settled their accounts. This will be before 1 July 2004.

Anyone holding credits on 1 July (this is when new credits will start) is obliged to contribute to the costs of running the scheme in accordance with the Regulation. This financial year (2003/4) credit holders are likely to pay a HRSTS contribution of \$289 for each credit they held on 1 July 2003. Anyone who purchases credits at the 2004 auction will be required to pay a HRSTS contribution for each credit they buy on top of the credit purchase price<sup>7</sup>.

## 2.4 If a bidder defaults

If anyone defaults on a successful bid (does not settle their account by the due date), we will offer the defaulter's credits to the next highest bidders on the bid schedule who missed out at the end of the auction, at price they offered. Defaulters will not be allowed to purchase any additional credits at a lower price. For example in table 3, if BD1 defaulted on their bid of 26 credits at \$4100 each, they would not be allowed to purchase the bid that they missed out on (20 credits at \$750 each). Their 26 credits would be offered to the next highest bidder BD2 at \$500 each.

*Table 3: Credit allocation at the end of the auction and after the defaulter's credits have been reallocated*

Bidder ID	Price offered	Number of credits wanted at the auction end	Cumulative credits wanted starting from the highest bid	Credit allocation at close of auction	Credit allocation after the defaulters credits are reallocated
BD1	\$4100	26	26	26	0
BD6	\$3750	40	66	40	40
BD4	\$3500	40	106	40	40
BD3	\$2500	50	156	50	50
BD5	\$1900	44	200	44	44
BD1	\$750	20	210	0	0 – will not be offered the defaulted credits
BD2	\$500	40	250	0	26 – partially filled
BD6	\$450	20	270	0	0

Note: these are hypothetical prices only.

We will also:

- a) publish the defaulter's name in the auction report, which will be published on the HRSTS website
- b) consider requiring a bond (size to be determined by us) for the 2006 (or subsequent) auction from any bidder that defaults on a successful bid in the 2004 (or subsequent) auction.

## 2.5 Residual credits

We propose to try to sell any residual credits (any credits that we still hold after successful bids have been settled), at the highest settled price from the auction. This will ensure that bidders are not tempted to wait until the auction is over to obtain any remaining credits at a lower price. We will sell residual credits in order of request at this price up until the end of 2005. Any credits that we still hold at that time will be auctioned along with the 200 new credits in 2006.

## 2.6 Report

We will prepare a report after the auction, which will be placed on the HRSTS website. As a minimum the report will include:

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<sup>7</sup> Credit holders will be invoiced in November 2004 and May 2005. We will proportion HRSTS costs between non-EPA credit holders as per clause 75 of the Regulation. The Regulation provides that the Department is not required to pay a contribution for any credits it holds.

- a) the allocation of the 200 new credits at the end of the auction and on settlement
- b) the name of any defaulters
- c) the auction-related costs and how long it took to conduct the auction
- d) any recommendations for the next auction, including amendments to the auction design.

## 2.7 Auction proceeds and costs

Auction proceeds will be used to pay the auction costs. Any additional funds will be used to offset the costs of the HRSTS. This will reduce the annual contributions payable by scheme participants.

If the auction proceeds are less than the auction costs, the shortfall will be added to the HRSTS costs and recovered from participants via their biannual contribution.

Under the Regulation we may charge a fee to any person who buys a credit at auction in order to recover auction costs. However, we will not charge an auction registration or administration fee for the 2004 auction. We may consider an administration fee for the auction in 2006.

## 3 Timing of auction-related tasks

Task	To be completed by
Consult with all relevant stakeholders on the proposed auction design and associated rules then finalise the proposal, based on this consultation	Early February 04
Publish auction rules on HRSTS website	Early February 04
Issue an auction information kit, including auction rules and a registration form	Mid February 04
Register bidders	Late February 04
Carry out a trial auction with interested registered bidders	Early March 04
Conduct the auction	Early April 04
Publish the successful bidders on the HRSTS website	After the auction
Issue invoices to successful bidders, with payment due within 30 days	Within 2 days of the auction
Adjust the credit register once successful bidders have settled their accounts.	Before 1 July 04
Prepare an auction report and place a copy on the HRSTS website.	End of August 04
Consult on any proposed amendments for the auction, which will be held in early 2006.	By end of 04

## 4 Your comments

Please send us your comments by 19 December 2003, by mail, email or facsimile:

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