

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

For more information about the Water Sharing Plan for the Hunter unregulated and alluvial water sources refer to on the department's website: www.industry.nsw.gov.au/water

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DWE 09_089

Water Sharing Rules

North Lake Macquarie Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cockle Creek	
Cease to Pump	All licence holders must cease to pump when: <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when there is no visible flow at the reference point. <p>NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.</p>
Reference Point	The causeway on The Weir Road, Barnsley.
All other tributaries	
Cease to Pump	Existing licence conditions apply for the first five years. From year six of the plan all licence holders must cease to pump when there is no visible inflow to, or outflow from, the pumping pool. <p>NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.</p>
Reference Point	Riffles upstream and downstream of the pump.
Amendment Provisions	N/a

Trading rules	
Trading INTO the water source	Permitted, subject to assessment, if the trade will not increase the total licensed entitlement for the water source (no net gain trade).
Trading WITHIN the water source	Permitted, subject to assessment
Conversion to High Flow Access Licence	Not permitted.

Conversion to Aquifer Access Licence	Not permitted
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Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

For more information about the Water Sharing Plan for the Hunter unregulated and alluvial water sources refer to on the department's website: www.dwe.nsw.gov.au

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DWE 09_089

Water Sharing Rules

Pages River Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Murrurundi Management Zone	
Cease to Pump	All licence holders must cease to pump when: <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when there is no visible flow at the reference point.
Reference Point	Benhams Bridge
Amendment Provisions	N/a
Scotts Creek Management Zone	
Cease to Pump	All licence holders must cease to pump when: <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when there is no visible flow at the reference point.
Reference Point	Pages River at Blandford gauge
Amendment Provisions	The cease to pump may be amended to the 95%ile flow level from year six of the Plan.
Kewell Creek Management Zone	
Cease to Pump	For the first five years of the plan all licence holders must cease to pump when: <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when there is no visible flow at the reference point.. From year six of the plan all licence holders must cease to pump when: <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) flows are at or below a flow equivalent to the cease to pump level identified in studies for the Gundy Management Zone.
Reference Point	Pages River upstream of the Kewell Creek gauge
Amendment Provisions	Access management for this water source may be amended based on further data collection and correlations.
Gundy Management Zone	
Cease to Pump	All licence holders must cease to pump when: <ul style="list-style-type: none"> (c) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (d) when there is no visible flow at the reference point.

Reference Point	Pages River at Gundy gauge
Amendment Provisions	The cease to pump may be amended up to a 0.6ML/day flow level from year six of the Plan.
Segenhoe Management Zone	
Cease to Pump	Groundwater trigger to be determined by year ten
Reference Point	To be defined by year ten
Amendment Provisions	Cease to pump based on groundwater level to be determined by year ten of the plan.

Trading rules	
Trading INTO the water source	Permitted, subject to assessment, if the trade will not increase the total licensed entitlement for the water source (no net gain trade).
Trading WITHIN the water source	Transfers allowed from Segenhoe zone to Gundy and Kewell Creek management zones. Transfers allowed from above the Murrurundi and Scotts Creek management zones to the Kewell Creek and Gundy management zones. No transfers into specified groundwater buffer zones in Segenhoe management zone. Transfers into the Segenhoe management zone may be allowed from year five of the plan based on further studies.
Conversion to High Flow Access Licence	Permitted with conversion rate of 1:2 for share components from unregulated river to unregulated high flow access licences (except in the Segenhoe Management Zone). Access when flows at or greater than 31 ML/day at Pages River at Gundy Recorder gauge.
Conversion to Aquifer Access Licence	Permitted, subject to assessment

Managing Alluvial Groundwater Bores	
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<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

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Water Sharing Rules

Paterson/Allyn Rivers Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Allyn River Management Zone	
Cease to Pump	<p>All licence holders, excluding water utility access licences, must cease to pump when:</p> <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when flows are at or below 7ML/day on a falling river at the reference point and there is no visible flow at Flying Fox Lane gauge. <p>All licence holders, excluding water utility access licences, may commence to pump when:</p> <ul style="list-style-type: none"> (c) there is a visible flow immediately downstream of their pump site or into and out of the pumping pool, and (d) when flows are at or above 15ML/day on a falling river at the reference point and there is a visible flow at Flying Fox Lane gauge. <p>Water utility access licences must cease to pump when:</p> <ul style="list-style-type: none"> (e) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (f) when flows are at or below 25ML/day on a falling river at the reference point. <p>NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.</p>
Reference Point	Allyn River at Halton gauge
Amendment Provisions	The cease to pump may be amended based on the introduction of infrastructure at a lower point in the water source.
Paterson River Tributaries Management Zone	
Cease to Pump	<p>Existing licences conditions remain for the first five years.</p> <p>From year six of the plan the cease to pump is when there is no inflow to, or outflow from, the pumping pool.</p> <p>NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.</p>
Reference Point	Riffles upstream and downstream of pump.
Amendment Provisions	N/a

Trading rules	
Trading INTO the water source	Not permitted
Trading WITHIN the water source	Permitted, subject to assessment
Conversion to High Flow Access Licence	Permitted, subject to assessment with conversion rate of 1:2 for share components from unregulated river to unregulated high flow access licences. Access when flows at or greater than 58 ML/day at Allyn River at Halton gauge.
Conversion to Aquifer Access Licence	Not permitted

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

Managing Alluvial Groundwater Bores	
<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

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DWE 09_089

Water Sharing Rules

Rouchel Brook Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cease to Pump	<p>All licence holders must cease to pump when:</p> <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) During October to March (inclusive) when flows are at or below 2 ML/day on a falling river as measured at the reference point (c) During April to September (inclusive when flows are at or below 1ML/day on a falling river as measured at the reference point. <p>All licence holders may commence to pump when:</p> <ul style="list-style-type: none"> (d) there is a visible flow immediately downstream of their pump site or into and out of the pumping pool, and (e) when flows are at or above 10 ML/day on a falling river as measured at the reference point. <p>NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences</p>
Reference Point	Rouchel Brook at The Vale gauge
Amendment Provisions	N/a

Trading rules	
Trading INTO the water source	Not permitted
Trading WITHIN the water source	Permitted, subject to assessment, but only in a downstream direction
Conversion to High Flow Access Licence	Permitted with conversion rate of 1:2 for share components from unregulated river to high flow access licences. Access when flows at or greater than 35 ML/day at Rouchel Brook at The Vale gauge.
Conversion to Aquifer Access Licence	Not permitted

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

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DWE 09_089

Water Sharing Rules

Singleton Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cease to Pump	Existing licence conditions remain for the first five years. From year six of the plan, cease to pump is when there is either no visible inflow to, or outflow from, the pumping pool. NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.
Reference Point	Riffles upstream and downstream of pump
Amendment Provisions	N/a

Trading rules	
Trading INTO the water source	Permitted, subject to assessment, if the trade will not increase the total licensed entitlement for the water source (no net gain trade).
Trading WITHIN the water source	Permitted, subject to assessment, but no transfers between tributaries within the water source.
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Not permitted

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

For more information about the Water Sharing Plan for the Hunter unregulated and alluvial water sources refer to on the department's website: www.dwe.nsw.gov.au

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DWE 09_089

Water Sharing Rules

South Lake Macquarie Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cease to Pump	Existing licence conditions remain for the first five years. From year six of the plan, cease to pump is when there is either no visible inflow to, or outflow from, the pumping pool. NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.
Reference Point	Riffles upstream and downstream of the pump

Trading rules	
Trading INTO the water source	Not permitted
Trading WITHIN the water source	Permitted, subject to assessment
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Not permitted

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

For more information about the Water Sharing Plan for the Hunter unregulated and alluvial water sources refer to on the department's website: www.dwe.nsw.gov.au

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DWE 09_089

Water Sharing Rules Tidal Pool Water Sources

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cease to Pump	To be determined by year ten of the plan
Reference Point	To be determined by year ten of the plan
Amendment Provisions	Cease to pump level to be determined by year ten of the plan in consultation with stakeholders. This may be based on salinity level or flow level.

Trading rules	
Trading INTO the water source	Not permitted
Trading WITHIN the water source	Permitted, subject to assessment
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Not permitted
Amendment provisions	The plan allows amendment of rules to allow trading into the water source, and further management within the water source in the future, if appropriate.

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

For more information about the Water Sharing Plan for the Hunter unregulated and alluvial water sources refer to on the department's website: www.dwe.nsw.gov.au

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DWE 09_089

Water Sharing Rules

Upper Goulburn River Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cease to Pump	Groundwater trigger to be determined by year ten
Reference Point	To be defined by year ten
Amendment Provisions	Cease to pump based on groundwater level to be determined by year ten of the plan.

Trading rules	
Trading INTO the water source	Not permitted
Trading WITHIN the water source	Permitted, subject to assessment, but only in a downstream direction and no transfers into specified groundwater buffer zones.
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Permitted, subject to assessment
Amendment provisions	These rules may be amended based on further studies to allow downstream transfers between water sources in the Goulburn Extraction Management Unit, no net gain transfers into the water source, and to allow upstream transfers within the water source.

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, <p>Downstream of Kerrabee</p> <ul style="list-style-type: none"> ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, <p>Upstream of Kerrabee</p> <ul style="list-style-type: none"> ○ 40m of a river or stream (3rd order or above), ○ 40m of a 1st or 2nd order stream, unless drilled into underlying parent material and slotted intervals commence deeper than 30m. (30m may be amended if demonstrate minimal impact on base flows in the stream.) ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

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DWE 09_089

Water Sharing Rules

Upper Hunter River Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
<p>The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.</p>	
Upper Hunter River Management Zone	
Cease to Pump	<p>For the first five years of the plan, all licence holders must cease to pump when:</p> <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when there is no visible flow at the Hunter River at Belltrees gauge. <p>From year six to nine of the plan, all licence holders must cease to pump when:</p> <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when flows are at or less than 7ML/day at the Hunter River at Moonan Damsite gauge, and (c) there is no visible flow at the Hunter River at Belltrees gauge. <p>From year ten of the plan, all licence holders must cease to pump when:</p> <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when flows are at or less than 12ML/day at the Hunter River at Moonan Damsite gauge, and (c) there is no visible flow at the Hunter River at Belltrees gauge <p>.NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.</p>
Reference Point	Hunter River at Moonan Damsite gauge and Hunter River at Belltrees gauge

Amendment Provisions	The cease to pump reference point may be moved during the plan based on the availability of adequate information at the Hunter River at Belltrees gauge, and discussions with water users. This may result in an amendment of the cease to pump level to an equivalent 97-95%ile flow level at the Hunter River at Belltrees gauge. Alternatively a new management zone may be identified between the Moonan Damsite gauge and the bottom of the water source. This management zone would have flow classes at the Hunter River at Belltrees equivalent to the upstream Hunter River at Moonan Damsite flow levels.
Stewarts Brook Management Zone	
Cease to Pump	All licence holders must cease to pump when: <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when there is no visible flow at both the reference points. <p>NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.</p>
Reference Point	Garlands Bridge and Hunter River at Belltrees gauge
Amendment Provisions	Visible flow at Belltrees gauge may be amended up to the 95 th percentile flow level during the term of the plan.

Trading rules	
Trading INTO the water source	Not permitted
Trading WITHIN the water source	Permitted, subject to assessment
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Not permitted

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

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DWE 09_089

Water Sharing Rules

Upper Paterson Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cease to Pump	All licence holders must cease to pump when: <ul style="list-style-type: none"> (a) there is no visible flow immediately downstream of their pump site or into and out of the pumping pool, and (b) when there is no visible flow at the reference point. NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.
Reference Point	"Beresford" property crossing
Amendment Provisions	Note the cease to pump level may be amended based on the introduction of new infrastructure.

Trading rules	
Trading INTO the water source	Not permitted
Trading WITHIN the water source	Permitted, subject to assessment
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Not permitted

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

For more information about the Water Sharing Plan for the Hunter unregulated and alluvial water sources refer to on the department's website: www.dwe.nsw.gov.au

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Water Sharing Rules

Upper Wollombi Brook Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Wollombi Brook Management Zone/Congewai Creek Management Zone	
Cease to Pump	Groundwater trigger or surface water cease to pump level to be determined by year ten
Reference Point	To be defined by year ten
Amendment Provisions	Groundwater trigger or surface water cease to pump level to be determined by year ten

Trading rules	
Trading INTO the water source	Permitted, subject to assessment but only from the Lower Wollombi Brook water source.
Trading WITHIN the water source	Permitted, subject to assessment, but only in a downstream direction and not into specified groundwater buffer zones.
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Permitted, subject to assessment.
Amendment Provisions	Trading in an upstream direction within the water source may be allowed based on further studies.

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

For more information about the Water Sharing Plan for the Hunter unregulated and alluvial water sources refer to on the department's website: www.dwe.nsw.gov.au

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Water Sharing Rules

Wallis Creek Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cease to Pump	Existing licence conditions remain for the first five years. From year six of the plan, cease to pump is when there is either no visible inflow to, or outflow from, the pumping pool. NB: From year six of the plan the cease to pump condition will apply to aquifer access licences extracting from all alluvial aquifers within 40m of an unregulated river, except for existing Domestic and Stock access licences and Local Water Utilities Access licences.
Reference Point	Riffles upstream and downstream of the pump
Amendment Provisions	N/a

Trading rules	
Trading INTO the water source	Permitted, subject to assessment, if the trade will not increase the total licensed entitlement for the water source (no net gain trade).
Trading WITHIN the water source	Permitted, subject to approval
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Not permitted

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

For more information about the Water Sharing Plan for the Hunter unregulated and alluvial water sources refer to on the department's website: www.dwe.nsw.gov.au

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Water Sharing Rules

Widden Brook Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cease to Pump	Groundwater trigger to be determined by year ten
Reference Point	To be defined by year ten
Amendment Provisions	Cease to pump based on groundwater level to be determined by year ten of the plan.

Trading rules	
Trading INTO the water source	Permitted, subject to assessment, if the trade will not increase the total licensed entitlement for the water source (no net gain trade).
Trading WITHIN the water source	Permitted, subject to assessment, but no transfers into specified groundwater buffer zones.
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Permitted, subject to assessment
Amendment Provisions	The Plan allows for amendment to allow downstream transfers between water sources in the Goulburn Extraction Management Unit based on studies to identify cumulative impacts of transfers.

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

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Report card for Williams River water source

Water source context		River flows	
Area:	1,275.3 km ² (66% forested)	Low flow Index:	(80th percentile in December of days with flow) = 22.6 ML/day
Average annual rainfall:	1,176 mm	Flow records:	1972 to 2004 (77 years)
Inflowing water source:	Nil	This estimate is based on flows measured in Williams River at Glen Martin (Mill Dam Falls).	
Receiving water source:	Newcastle		

Licensed water use

- Total surface water entitlement: 8,263 ML/year (97% used for irrigation purposes).
- 177 surface water licenses – Peak Daily Demand = 260.2 ML/day.
- 4.47% of total Hunter Extraction Management Unit entitlement.

Management rules for the Williams River water source

Access rules Williams River Management Zone	
Cease to pump (CtP)	Cease to pump is when flows are at or below 6 ML/day at the Williams River at Glen Martin (Mill Dam Falls) gauge for all licence holders who are accredited under the Williams River Pilot Low Flow Accreditation Scheme. Cease to pump for all licence holders who are not accredited under the Williams River Pilot Low Flow Accreditation Scheme is 15 ML/day at the Williams River at Glen Martin (Mill Dam Falls) gauge.
Reference point	Williams River at Glen Martin (Mill Dam Falls) gauge.
Access rules Seaham Weir Management Zone	
Cease to pump (CtP) A Class	Cease to pump is when flow levels are at or below 0.38 metres AHD at the visual gauge board at Seaham Weir.
Cease to pump (CtP) B Class	Cease to pump is when flow levels are at or below 0.42 metres AHD at the visual gauge board at Seaham Weir. This applies to major utility access licences only.
Reference point	The visual gauge board at Seaham Weir.
Trading rules	
INTO water source	Not permitted.
WITHIN water source	Permitted, subject to assessment, but no trades from below to upstream of Chichester dam.
Conversion to High Flow Access Licence	Not permitted.
Conversion to Aquifer Access Licence	Not permitted.

Key factors for Panel decision

Background information		
Water source attributes	Rating	Justification for initial classification
Relative instream value (within catchment)	High	<ul style="list-style-type: none"> • 8 threatened amphibian species. • 6 threatened bird species. • Platypus have been identified in this water source. • High species diversity. • High fish community integrity. • High quality wet flora. • The ecology value of the river for invertebrates is deemed to be high.
Hydrological stress	High	Peak extraction demand exceeds available flows in December.
Relative economic significance of irrigation (within catchment)	Medium	Low economic dependence of the local community on water extracted for irrigation.
Risk to instream value (from extraction)	High	Instream values are at medium risk of being impacted by extractions within the water source.
Existing access arrangements during dry conditions		
Water User Association (WUA)	Yes – Williams River WUA , Williams River Care Association	
Licensed Cease to Pump (CtP)	Cease to Pump set by Healthy Rivers Commission.	

Interagency Regional Panel review of initial classification and draft rules

Classification

- Gaining stream type.
- No amendment made to initial classification.

Rules

- Trading rules identified through the classification process were adopted by the Interagency Regional Panel.
- Access rules identified through the classification process (cease to pump to maintain specified depth of flow at end of water source; cease to pump to allow flows at or below the 90th percentile to pass end of water source; specific flow rule for instream values; environment to receive high proportion of daily flow) were not adopted by the Interagency Regional Panel. Access rules recommended by the Healthy Rivers Commission, including the Williams River Pilot Low Flow Accreditation Scheme were adopted.

Matters raised during targeted consultation

Based on submissions received from water users the Interagency Regional Panel has proposed a number of amendments to the proposed access within the draft plan. These include:

- separation of the water source into two management zones – the Williams River and Seaham Weir
- inclusion of amendment provisions for the possible amendment of the cease to pump flow level for Seaham Weir management zone by year five of the plan based on further studies.

Matters raised during public exhibition

Based on submissions received during public exhibition the Interagency Regional Panel has proposed a number of amendments.

The following amendments are relevant to all water sources:

- Review of the map of the plan area to ensure:
 - all existing water sharing plans excluded from the plan are clearly identified on the map
 - management boundaries for alluvial aquifers are refined due to original mapping being done at coarser scale.
- In relation to mandatory conditions for water supply works being used to take water from the groundwater or the alluvial sediments:
 - Amendment of provisions relating to replacement works to more clearly specify the allowable level of impact from such works.
 - Amendment of provisions relating to replacement works allowing such works within 20 m of the original work.

For more information about the macro planning process for the Hunter Unregulated and Alluvial Water Sources refer to the "Hunter Unregulated and Alluvial Water Sources – Background Document" on the Departments website: www.dwe.nsw.gov.au

Water Sharing Rules

Wollar Creek Water Source

Water Sharing Plan	
Plan	Hunter Unregulated and Alluvial
Plan Commencement Date	1 August 2009
Term of the Plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters.

Access Rules	
The following rules are a guide only. For more information about your actual license conditions, please contact licensing staff from the Department of Water and Energy in Newcastle, phone 4904 2500.	
Cease to Pump	Groundwater trigger to be determined by year ten
Reference Point	To be defined by year ten
Amendment Provisions	Cease to pump based on groundwater level to be determined by year ten of the plan.

Trading rules	
Trading INTO the water source	Permitted, subject to assessment, if the trade will not increase the total licensed entitlement for the water source (no net gain trade).
Trading WITHIN the water source	Permitted, subject to assessment, but no transfers into specified groundwater buffer zones.
Conversion to High Flow Access Licence	Not permitted
Conversion to Aquifer Access Licence	Permitted, subject to assessment
Amendment Provisions	The Plan allows for amendment to allow downstream transfers between water sources in the Goulburn Extraction Management Unit based on studies to identify cumulative impacts of transfers.

Managing Alluvial Groundwater Bores	
<p>To minimise interference between neighbouring bores</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p> <p><i>These rules do not apply to bores nominated solely for domestic and stock, town water supply or local water utility access licences.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore ○ 200m from a BLR bore ○ 50m from the boundary (unless negotiated with neighbour). ○ 500m from a local or major water utility bore (or as otherwise assessed) ○ 400m from departmental monitoring bore (unless negotiated with the department) ▪ These distances may be varied by the Minister if the applicant undertakes a hydrogeological study, assessed as adequate by the Minister, which demonstrates minimal potential for adverse impacts on existing authorised extraction. ▪ These specified distances may also be varied after year five of the plan by the Minister.
<p>Management of bores near contaminated sites.</p> <p><i>These rules apply to new bores.</i></p> <p><i>These rules do not apply to replacement bores.</i></p>	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ This distance may be varied for an applicant if the applicant can demonstrate no more than minimal harm to the groundwater source and there is no impact on the environment or threat to public health. ▪ New bores located within 100m–500m of contaminated sites as identified within the plan will require Ministerial approval and have evidence that no drawdown of groundwater within 100 m of the contamination source will occur. ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ These rules may also be applied to contaminated sources not identified within the plan, based on the results of a site inspection or other relevant information provided to the Minister. • Contaminated sites identified within the Plan may be added or removed by the Minister based on results of a site inspection or other relevant information provided to the Minister on that contamination source.

<p>Granting of bores near groundwater dependent ecosystems</p> <p><i>These rules apply to new & replacement bores.</i></p> <p><i>These rules do not apply to replacement bores that are part of a Local or Major Water Utility or Town Water Supply bore field or network.</i></p>	<ul style="list-style-type: none"> ▪ Bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above. ▪ Bores are not to be located within the following distances from these identified features: <ul style="list-style-type: none"> ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability, ▪ These rules do not apply to works for monitoring, environmental management purposes or remedial work. ▪ The distances from GDEs may be varied for an applicant if a hydrogeological study is undertaken which demonstrates no drawdown of the groundwater at the outside edge of the GDE listed in the Plan. ▪ These specified distances may be amended, or high priority GDEs identified within the Plan may be added or removed, based on further studies of groundwater ecosystem dependency undertaken by the Minister.
<p>Temporary local impact area rules for managing water quality and maintaining groundwater levels</p> <p><i>These rules apply to all bores.</i></p>	<ul style="list-style-type: none"> • In order to protect water quality and maintain groundwater levels within this groundwater source, local restrictions may be applied.

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Water sharing rules Wybong Creek Water Source

Water sharing plan	Hunter Unregulated and Alluvial Water Sources
Plan commencement	1 August 2009
Term of the plan	10 years
Water Sharing Rules	These rules apply to all surface waters in the water source, as well as the alluvial groundwater that is highly connected to the surface waters and is taken through bores and wells.

Rules summary

The following rules are a guide only. For more information about your actual licence conditions please call the DPI Water, Newcastle on (02) 4904 2500.

Access rules

Management zone	Access rules
Kars Springs Management Zone	Pumping is permitted when there is visible flow at both Wybong Creek at Kars Springs AND at Wybong Creek 1.
Bunnan Management Zone	Pumping is permitted when there is visible flow at Wybong Creek 1 AND at Wybong Creek 2
White Rock Management Zone	Pumping is permitted when there is visible flow at Wybong Creek 2 AND at Wybong Creek 3
Manobalai Management Zone	Pumping is permitted when there is visible flow at Wybong Creek 3 AND at Manobalai Gauge (210147)
Wybong Management Zone	Pumping is permitted when there is visible flow at Manobalai Gauge (210147) AND at Wybong Creek at Wybong Creek Gauge (210040).
Cuan Management Zone	Pumping is permitted when there is visible flow at Cuan Creek 1 AND at Cuan Creek 2
Cuan and Reedy Creeks Management Zone	Pumping is permitted when there is visible flow at Cuan Creek 2 AND at Cuan Creek 3
Flow Reference Points	Approximate locations
Wybong Creek at Kars Springs	Ford across Wybong Creek on Little Creek Road at Kars Springs; 145 metres from Kars Springs Road
Wybong Creek 1	Wybong Creek, approximately 50 metres upstream from the Staunton Bridge at Bunnan
Wybong Creek 2	Wybong Creek rock bar 50 metres upstream from the Ridgелands Road Bridge
Wybong Creek 3	Ford across Wybong Creek on Ridgелands Road across Wybong Creek at 'Ridgелands'
Manobalai Gauge (210147)	Approximately 6.5 Km upstream of Dry Creek Bridge on Wybong Creek. Location and real-time flow data is available http://www.water.nsw.gov.au/realtime-data
Wybong Creek at Wybong Creek Gauge (210040)	Wybong Creek at the rock bar in at Yarranman Road. Location and real-time flow data is available http://www.water.nsw.gov.au/realtime-data
Cuan Creek 1	Cuan Creek rock bar immediately downstream of the Guan Gua Bridge 8 km east of Bunnan on the Merriwa to Scone Road
Cuan Creek 2	Cuan Creek rock bar adjacent to the cottage at 'The Valley'
Cuan Creek 3	Cuan Creek, approximately 1.5 km upstream from junction with Wybong Creek

Note: Under Section 45 of the *Water Management Act 2000*, Minister for Lands and Water has the authority to amend access rules in Water Sharing Plans if in the public interest, with consent of the Minister for the Environment.

Note:

These access rules do not apply to:

- The taking of water to meet basic landholder rights;
- Local Water Utility access licences;
- Domestic and Stock (subcategory “Domestic”) access licences providing that the volume of water does not exceed 1 KL per house per day;
- Water taken from run-off harvesting dams or in-river dam pools;
- Water taken under an access licence for any of the following purposes providing the volume does not exceeding 20 KL/day;
 - fruit washing,
 - cleaning of dairy plant and equipment for the purpose of hygiene,
 - poultry watering and misting, or
 - cleaning of enclosures used for intensive animal production for the purposes of hygiene.

These access rules apply to Domestic and Stock (subcategory “Stock”) access licences.

Trading rules

INTO the water source	Prohibited.
BETWEEN the management zone	Permitted, to maximum entitlement: <ul style="list-style-type: none"> • 4,231 unit shares in the in Kars Springs, Bunnan and White Rock Management Zones, • 553 unit shares in the Cuan and Cuan and Reedy Creeks Management Zones, • 6,719 unit shares in the Wybong and Manobalai Management Zones. These figures represent existing entitlement.
WITHIN the management zone	Permitted, subject to assessment.
Conversion to an Aquifer Access Licence	Permitted, subject to assessment.
Conversion to High Flow Access Licence	Prohibited.

Rules for granting or amending approvals for groundwater supply works	
To minimise interference between neighbouring bores	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of existing bores: <ul style="list-style-type: none"> ○ 400m from an access licence bore, ○ 200m from a BLR bore, ○ 50m from the boundary (unless negotiated with neighbour), ○ 500m from a local or major water utility bore (or as otherwise assessed), ○ 400m from departmental monitoring bore (unless negotiated with the department). ▪ These distances restrictions do not apply if: <ul style="list-style-type: none"> ○ the bore is used solely for basic landholder rights, ○ the bore is a replacement bore, ○ the bore is used for monitoring, environmental management or remedial works, ○ a hydrogeological study submitted by the applicant, and assessed as adequate by the Minister shows that the location of the bore at a lesser distance will have no more than minimal impact on existing extraction from the water source.
Rules for bores located near contamination sources	<ul style="list-style-type: none"> ▪ New bores are not to be located within the 100m of contaminated sites as identified within the plan. ▪ These distances restrictions do not apply if: <ul style="list-style-type: none"> ○ the Minister is satisfied that the bore is used for monitoring, environmental management or remedial works, ○ a hydrogeological study assessed as adequate by the Minister shows that the distance is adequate to protect the water source, the environment and public health and safety. <p>Note: Due to the nature of managing contaminated sites, bores may be subject to restrictions as a result of local impact management.</p>
Rules for bores located near sensitive environmental areas	<ul style="list-style-type: none"> ▪ New bores are not to be located within the following distances of high priority GDEs (non Karst) as identified within the plan: <ul style="list-style-type: none"> ○ 100m for bores used for extracting for BLR, ○ 200m for bores used for all other aquifer access licences, ○ Where there is likely to be drawdown at the outside edge of the buffer zones referred to above, ○ 500m of karsts, ○ In the bed of the river, unless assessment indicates that the work will have minimal harm on the river environment or stability. ▪ These distances restrictions do not apply if the Minister is satisfied that: <ul style="list-style-type: none"> ○ no drawdown of water will occur at the perimeter of any GDE listed in the plan, ○ the bore is a replacement bore, ○ the bore is used for monitoring, environmental management or remedial works, ○ a hydrogeological study assessed as adequate by the Minister shows that the distance is adequate to protect the water source, its dependent ecosystem and no more than minimal draw down will occur. <p>High priority GDEs may be added or removed from the Plan based on further studies of groundwater ecosystem dependency undertaken by the Minister.</p>

<p>Rules for bores located near groundwater dependent culturally significant sites</p>	<ul style="list-style-type: none"> ▪ New bores are not to be granted or amended within the following distances of groundwater dependent cultural significant sites: <ul style="list-style-type: none"> ○ 100 m for bores used solely for taking water pursuant to a basic landholder right, ○ 200 m for bores not used solely for extracting basic landholder rights. ▪ These distances restrictions do not apply if: <ul style="list-style-type: none"> ○ the bore is a replacement bore, ○ the bore is used for monitoring, environmental management or remedial works, ○ the bore replaces an existing bore that is part of a network for a major or local water utility used for the purpose of town water supply, ○ a hydrogeological study submitted by the applicant and assessed as adequate by the Minister shows that the location of the bore at a lesser distance will have no more than minimal impact on these water source and their groundwater dependent culturally significant sites. <p>Note: Culturally significant sites will not be specifically identified in the plan, however a provision requiring a procedure whereby NOW undertakes to identify these during the process of assessing and granting works approvals will be included in the plan.</p>
<p>Rules for existing bores located within restricted distances</p>	<p>An existing bore will be able to continue extraction of groundwater with the maximum annual amount extracted equivalent to the access licence share components plus the maximum volume that can be carried over by access licences nominating that water supply work at the commencement of this Plan.</p> <p>Note: The water quality from any bore can be affected by land use activities and inherent water quality in the aquifer. Water quality cannot be guaranteed and may be unsuitable for human consumption and other uses. The quality of water extracted should be tested before being used and appropriately treated. Such testing and treatment is the responsibility of the licence holder.</p> <p>Note: If the distance criteria in the plan are amended, the maximum amount of water that may be taken by a bore within the new criteria in one water year is equal to the sum of share components plus the maximum volume that can be carried over by access licences nominating that water supply work at the time of amendment.</p>
<p>Rules to manage local impacts</p>	<p>Section 324 of the Water Management Act 2000 provides for the management of local impacts in groundwater sources. The Minister may, for a specified period prohibit or restrict the taking of water from a water source, as the case requires to:</p> <ul style="list-style-type: none"> ▪ maintain or protect water levels in an aquifer, ▪ maintain, protect or improve the quality of water in an aquifer, ▪ prevent land subsidence or compaction in an aquifer, ▪ to protect groundwater dependent ecosystems, ▪ to maintain pressure, or to ensure pressure recovery, in an aquifer.

More information about the planning process for the Hunter Unregulated and Alluvial Water Sources is available at the DPI Water website www.water.nsw.gov.au

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