

Project Title  
**SHIMNA  
FLOOD ALLEVIATION SCHEME  
NEWCASTLE, CO. DOWN**

Client  
 **Infrastructure Bonneagair**

Drawing Title  
**SHIMNA RIVER FLOOD ALLEVIATION SCHEME  
LOCATION PLAN**

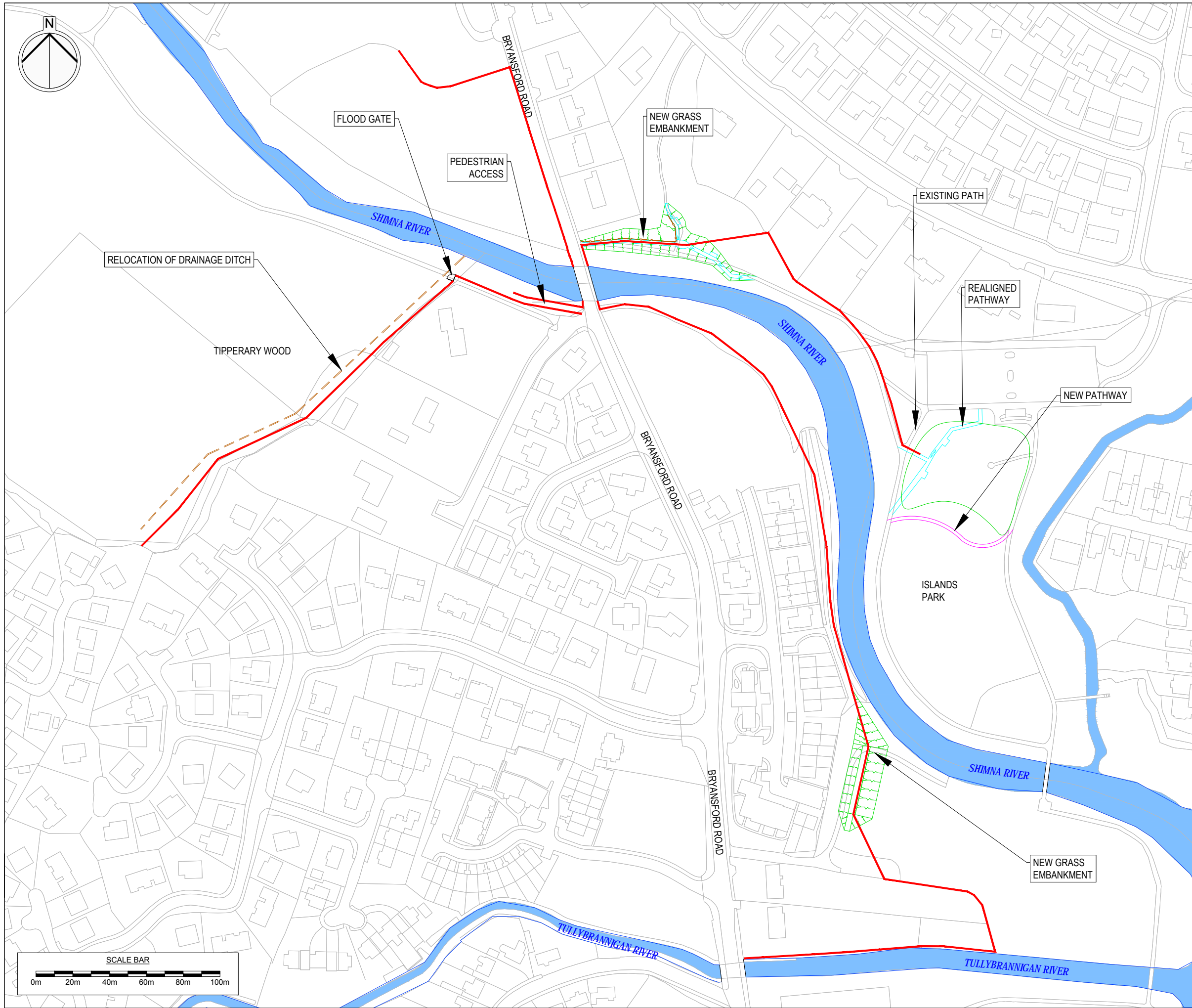
KEY  
 PROPOSED SCHEME  
 PROPOSED SCHEME EMBANKMENT  
 WATERCOURSE

Scale @ A3  
1:5000  
AECOM Internal Project Number  
60556684

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**FIGURE 1.1**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**



Drawing Title  
**SCHEME DESCRIPTION**  
**SHIMNA RIVER FLOOD ALLEVIATION  
 SCHEME**

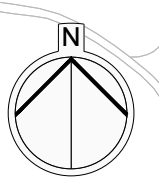
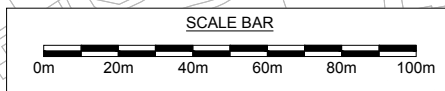
KEY

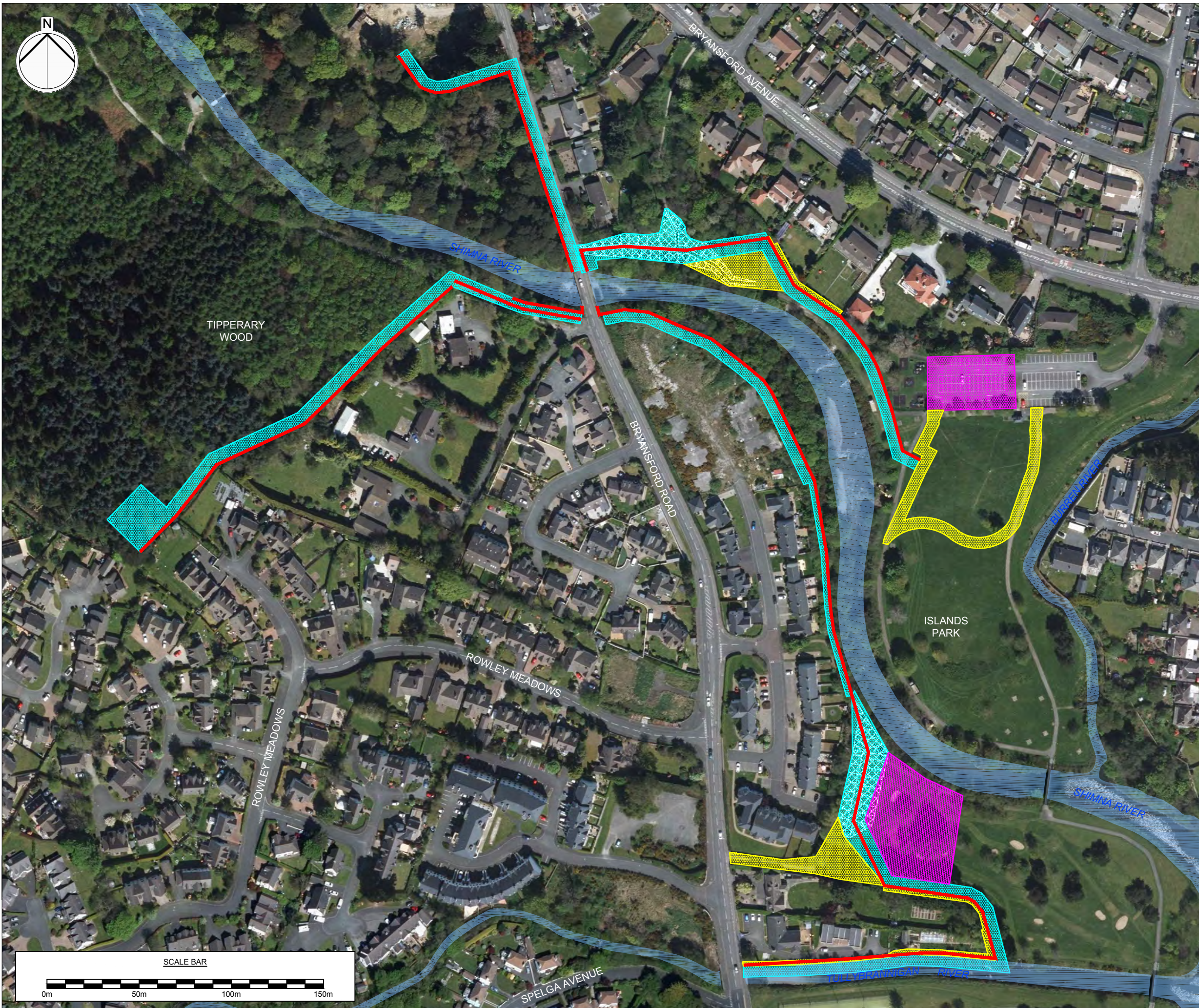
	NEW SHEET PILE WALL
	NEW FLOOD GATE
	RELOCATED DRAINAGE DITCH
	NEW PATHWAY
	REALIGNED PATHWAY
	EMBANKMENT
	NEW FENCE

Scale @ A3  
 1:2000  
 AECOM Internal Project Number  
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**FIGURE 4.1**

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








Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**SCHEME DESCRIPTION  
 PROPOSED WORKING AREA**

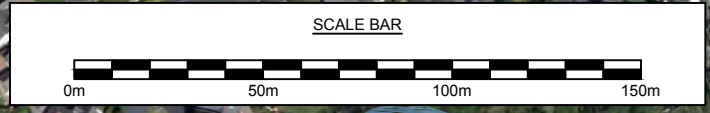
- KEY**
-  PROPOSED SCHEME
  -  PROPOSED SCHEME EMBANKMENT
  -  WATERCOURSE
  -  CONSTRUCTION AREA (FULL CLEARANCE OF VEGETATION / TREES REQUIRED)
  -  CONTRACTOR WORKING AREA (TEMPORARY ACCESS REQUIRED WITH HERAS FENCING ERRECTED TO SEGREGATE CONTRACTOR FROM PUBLIC)
  -  POSSIBLE CONTRACTOR COMPOUNDS (COMPOUND FENCING TO BE ERRECTED TO SEGREGATE CONTRACTOR FROM PUBLIC)

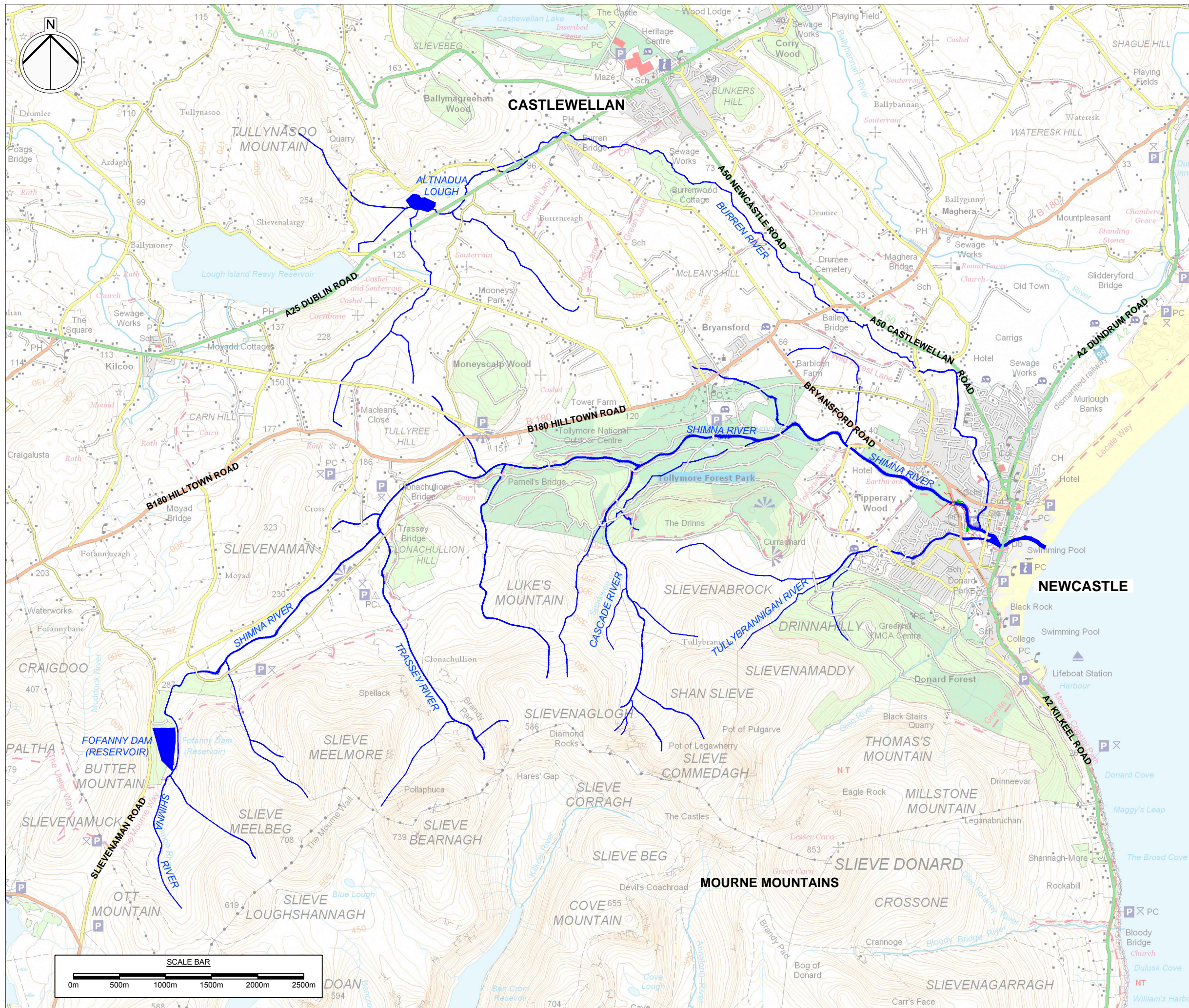
Scale @ A3  
 1:2000  
 AECOM Internal Project Number  
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**FIGURE 4.2**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**EXISTING CONDITIONS**  
**SHIMNA RIVER**

KEY  
 SHIMNA CATCHMENT WATERCOURSES

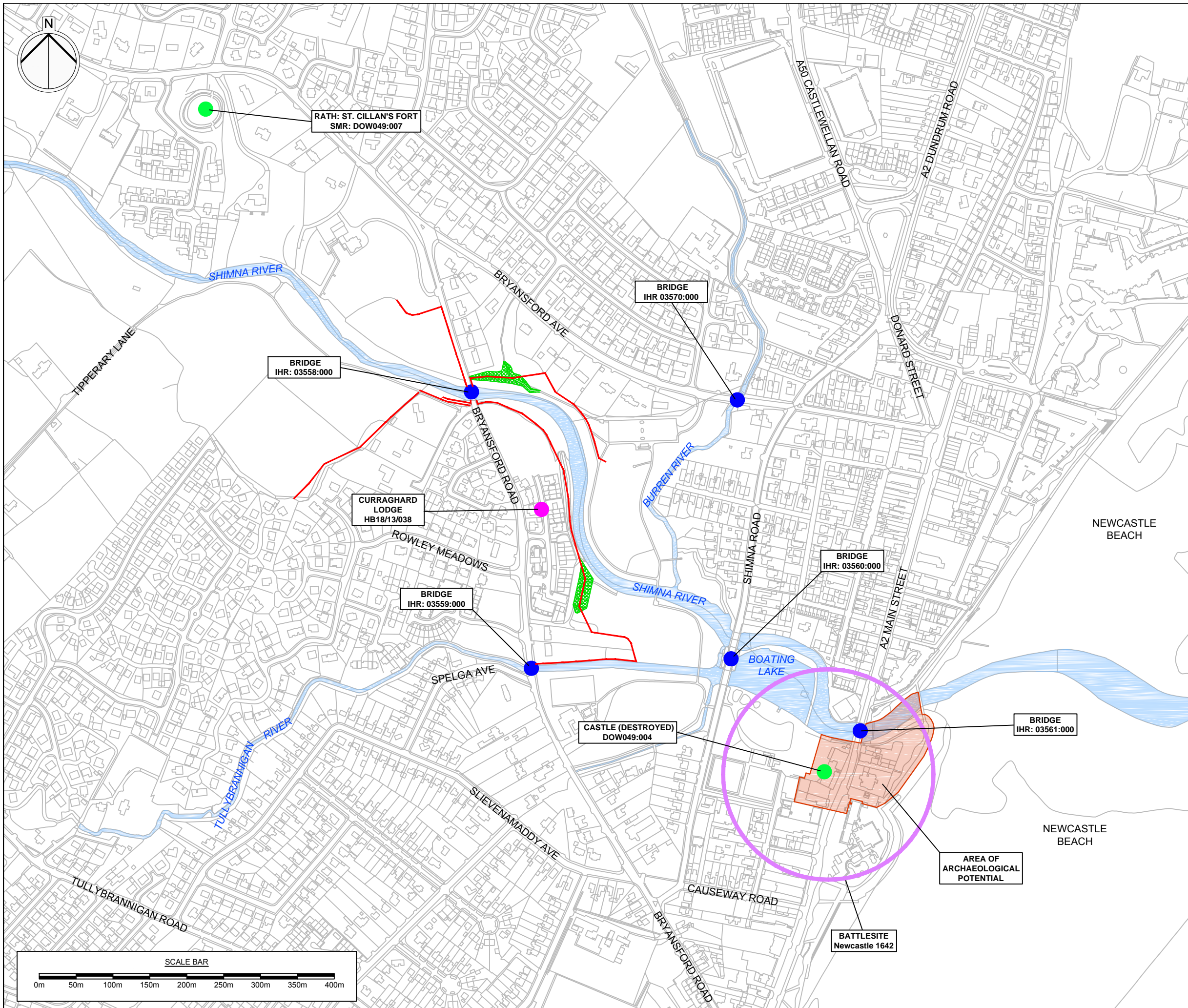
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**FIGURE 5.1**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  

 Department for Infrastructure

Drawing Title  
**CULTURAL HERITAGE  
 HISTORIC ENVIRONMENT SITES**

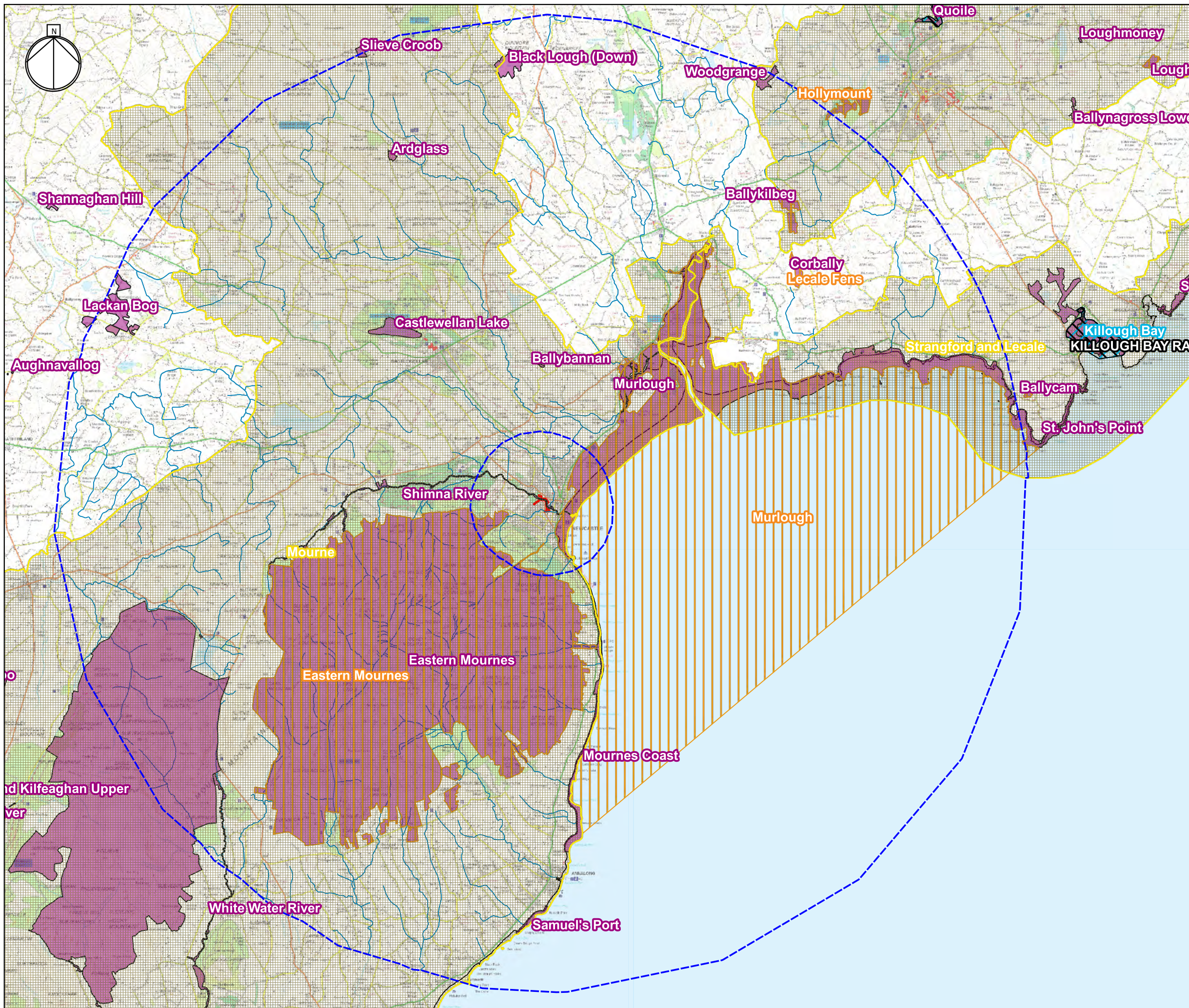
- KEY
- PROPOSED SCHEME
  - PROPOSED SCHEME EMBANKMENT
  - WATERCOURSE
  - SITES AND MONUMENTS
  - HISTORIC BUILDINGS
  - INDUSTRIAL HERITAGE
  - AREA OF ARCHAEOLOGICAL POTENTIAL
  - BATTLE SITE

Scale @ A3  
 1:5000  
 AECOM Internal Project Number  
 60556684

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**FIGURE 8.1**

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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  

 Infrastructure Bonneair

Drawing Title:  
**EUROPEAN SITES WITHIN  
 15 KM AND ASSI WITHIN 2  
 KM OF SCHEME**

- KEY**
- RAMSAR
  - SPA
  - SAC
  - ASSI
  - AONB
  - WATERCOURSES
  - 2 KM BUFFER OF SITE
  - 15 KM BUFFER OF SITE
  - PROPOSED FLOOD WALLS

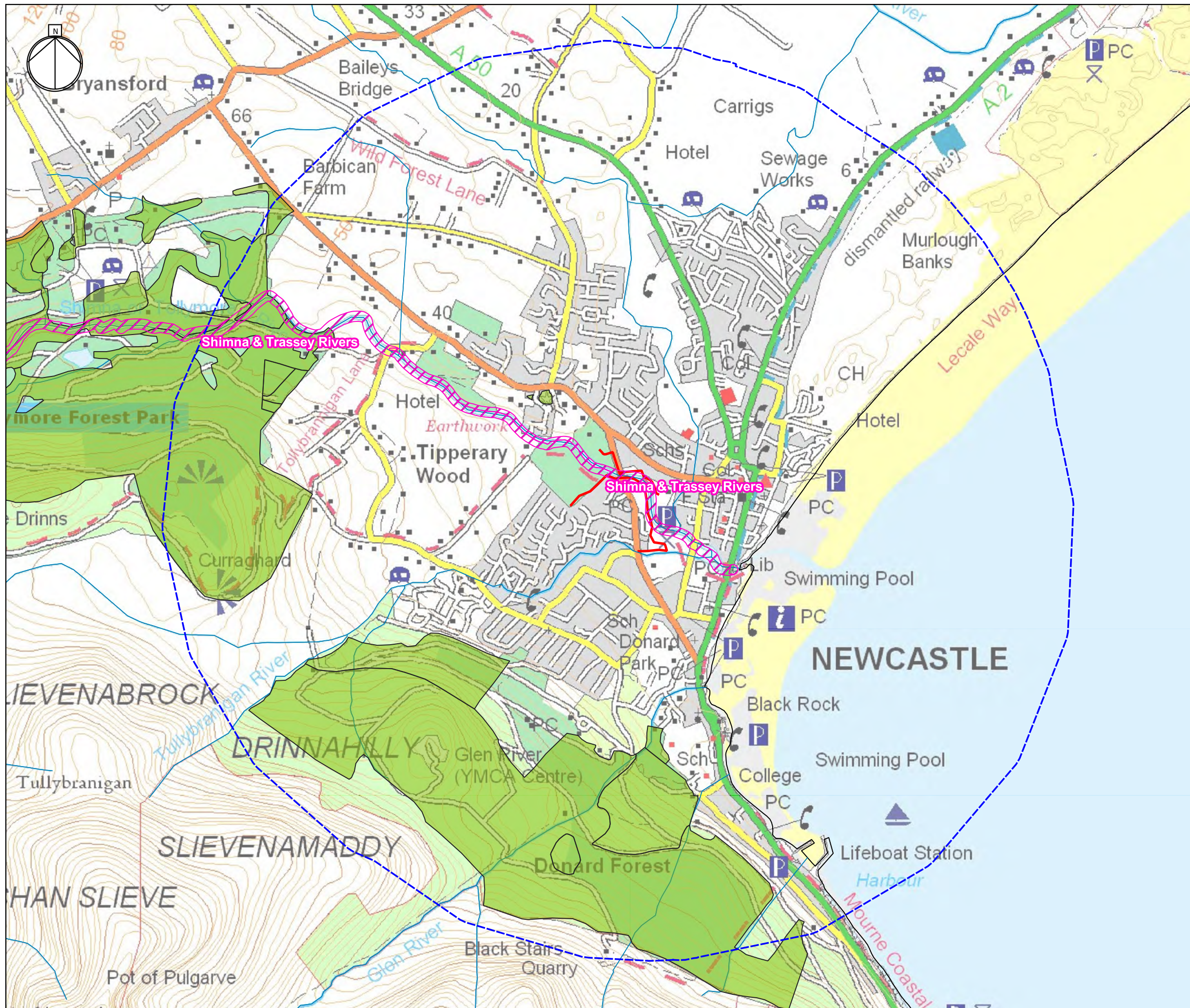
Scale @ A3  
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**FIGURE 9.1**

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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  

 Infrastructure Bonneair

Drawing Title:  
**SLNCI AND LONG-ESTABLISHED WOODLAND  
 WITHIN 2KM OF SCHEME**

KEY  
 SLNCI  
 LONG-ESTABLISHED WOODLAND  
 WATERCOURSES  
 2 KM BUFFER OF SITE  
 PROPOSED FLOOD WALLS

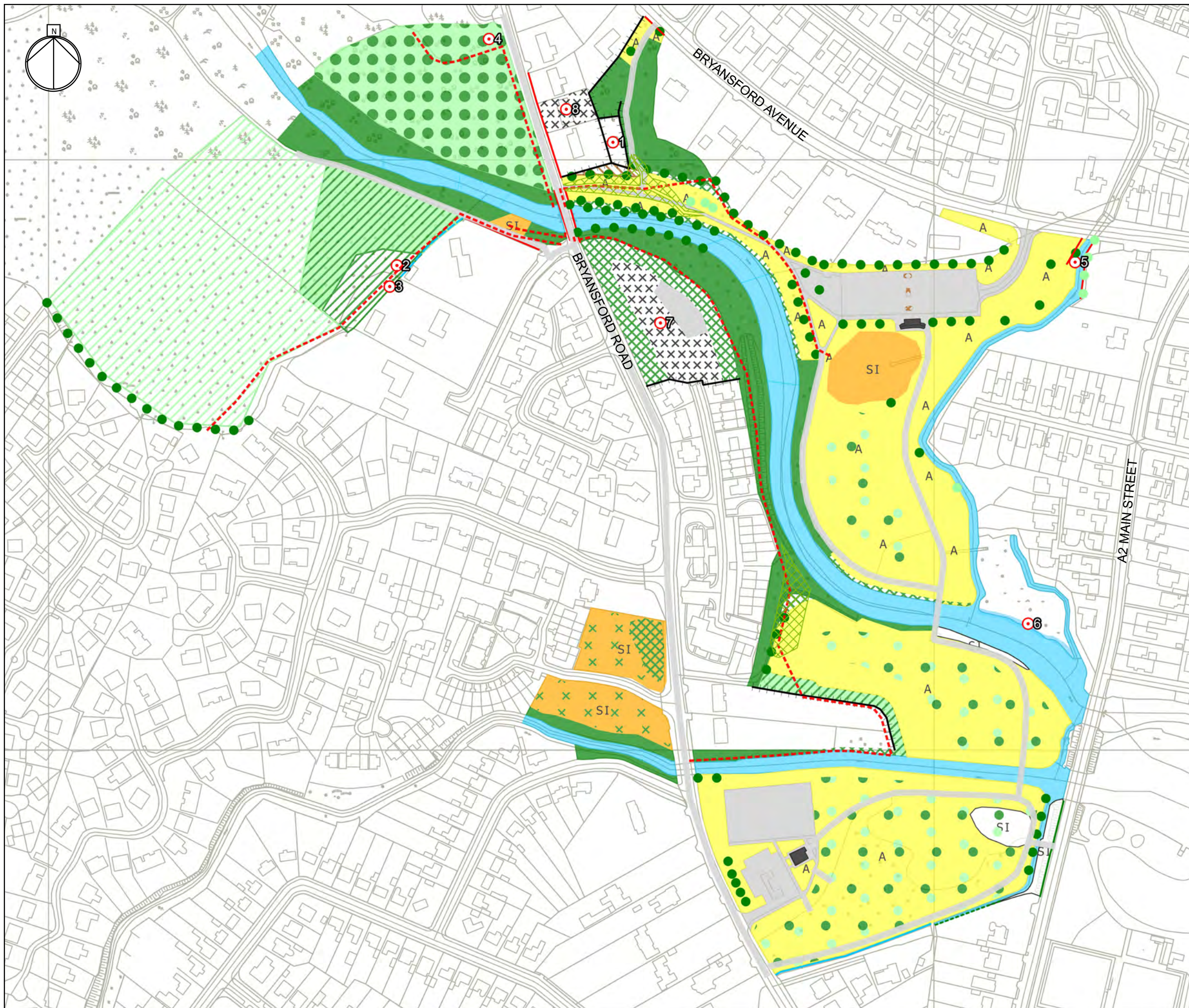
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**FIGURE 9.2**

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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  

 Department for Infrastructure An tAonairt

Drawing Title:  
**ECOLOGY PHASE 1  
 HABITAT SURVEY RESULTS**

- KEY**
- A1.1.1 BROADLEAVED SEMI-NATURAL WOODLAND
  - A1.1.2 BROADLEAVED PLANTATION WOODLAND
  - A1.2.2 CONIFEROUS PLANTATION WOODLAND
  - A1.3.1 MIXED SEMI-NATURAL WOODLAND
  - A1.3.2 MIXED PLANTATION WOODLAND
  - A2.1 DENSE/CONTINUOUS SCRUB
  - A2.2 SCATTERED SCRUB
  - B2.2 SEMI-IMPROVED NEUTRAL GRASSLAND
  - B6 POOR SEMI-IMPROVED GRASSLAND
  - C3.1 TALL RUDERAL
  - F1 SWAMP
  - G2 RUNNING WATER
  - J1.2 AMENITY GRASSLAND
  - J1.3 EPHEMERAL/SHORT PERENNIAL
  - J1.4 INTRODUCED SHRUB
  - J3.6 BUILDINGS
  - HARDSTANDING
  - J2.1.2 SPECIES-POOR INTACT HEDGEROW
  - J2.2.2 SPECIES-POOR DEFUNCT HEDGEROW
  - J2.4 FENCE
  - J2.5 WALL
  - J2.6 DRY DITCH
  - A3.1 SCATTERED BROADLEAVED TREE
  - A3.2 SCATTERED CONIFER TREE
  - TARGET NOTE
  - PROPOSED FLOOD WALLS
  - PROPOSED SCHEME EMBANKMENT

Scale @ A3  
 1:2,500

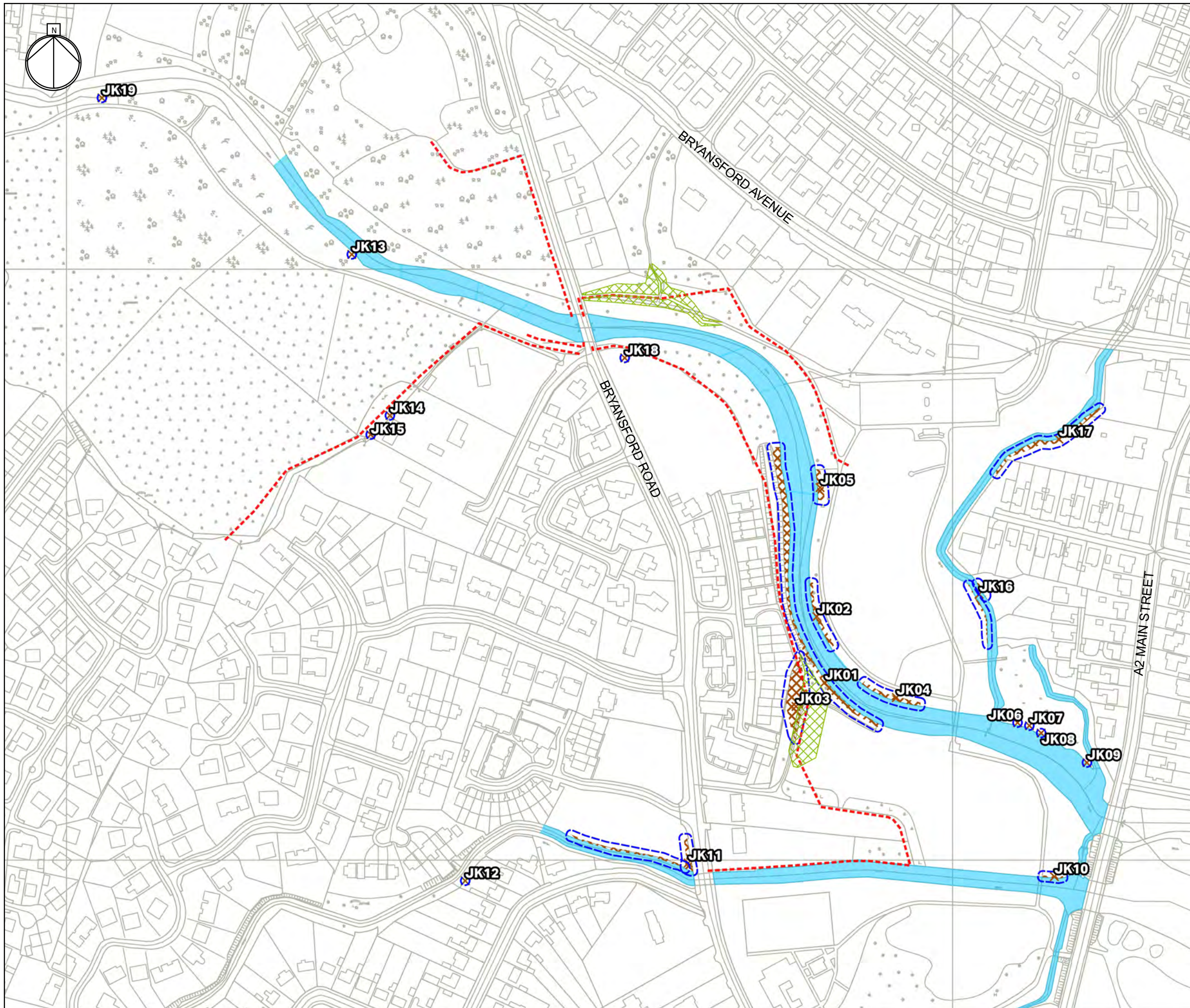
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FIGURE 9.3

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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  


Drawing Title:  
**ECOLOGY INDICATIVE  
 INVASIVE SPECIES  
 LOCATIONS**

KEY  
 INVASIVE SPECIES  
 3 M BUFFER  
 PROPOSED FLOOD WALLS  
 PROPOSED SCHEME EMBANKMENT

Scale @ A3  
 1:2,500

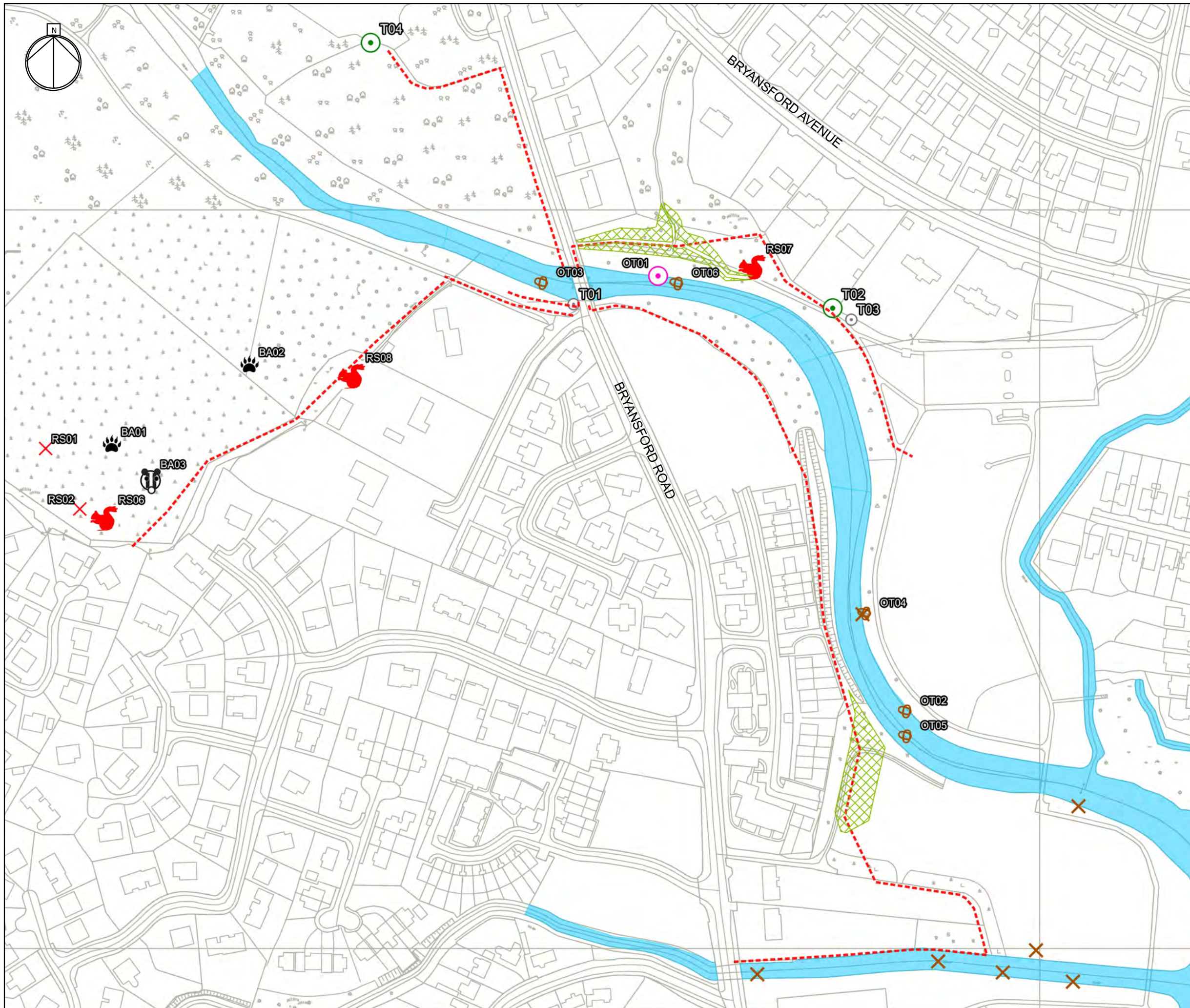
AECOM Internal Project Number  
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**FIGURE 9.4**

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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  


Drawing Title:  
**ECOLOGY PROTECTED  
 MAMMALS SURVEY  
 RESULTS**

- KEY**
- OTTER EVIDENCE**
-  LAYUP
  -  SPRAIT
  -  SLIDE
- BADGER EVIDENCE**
-  DIGGING
  -  ANECDOTAL SIGHTING
- RED SQUIRREL EVIDENCE**
-  FEEDING REMAINS
  -  ANECDOTAL SIGHTING
- BAT TREES (PRF INSPECTION)**
-  MODERATE TREE
  -  LOW-NEGLIGIBLE
  -  LOW
- PROPOSED FLOOD WALLS**
- 
- PROPOSED SCHEME EMBANKMENT**
- 

Scale @ A3  
 1:2,000

AECOM Internal Project Number  
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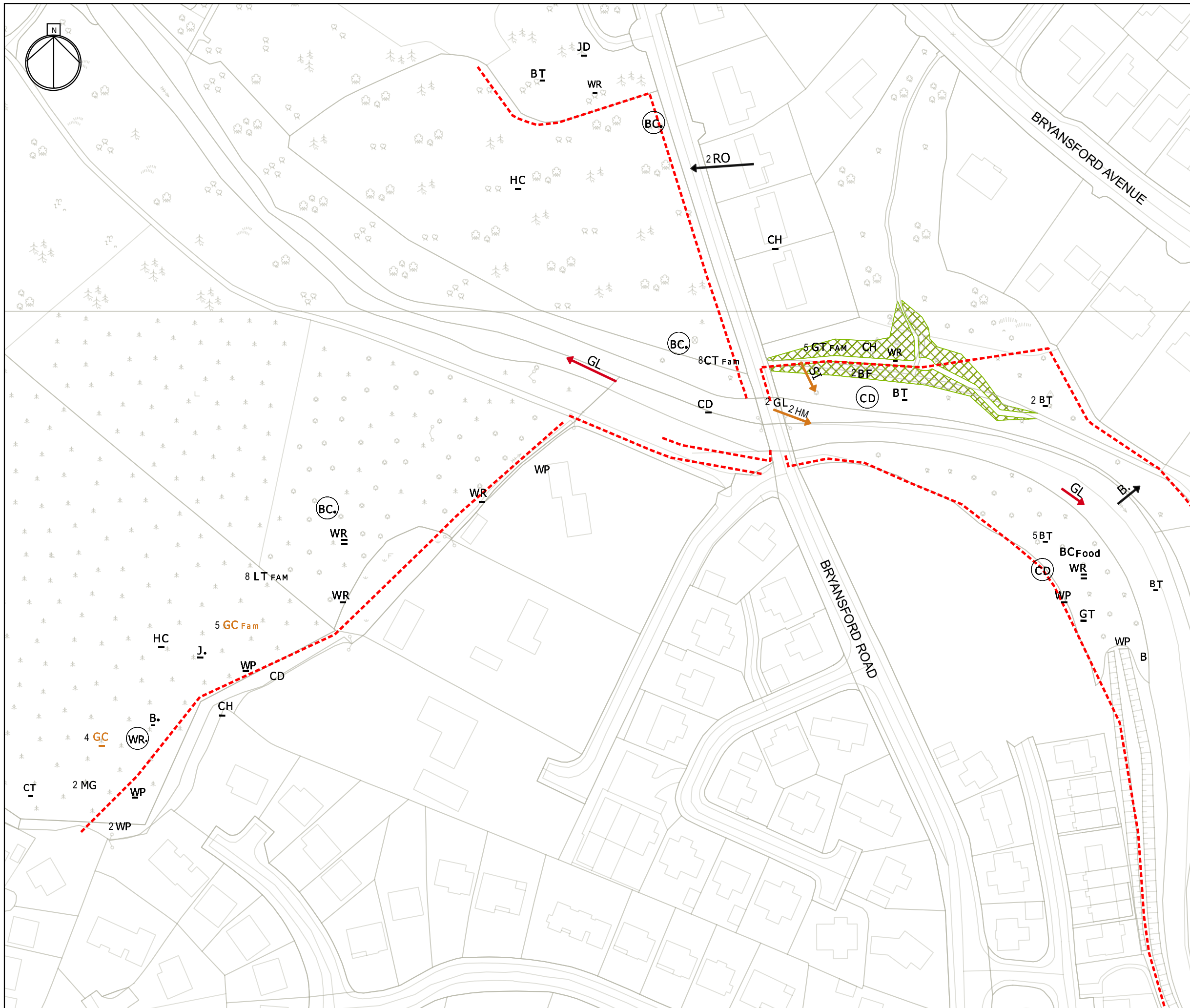
**FIGURE 9.5**

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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  

 Infrastructure Bonneagair

Drawing Title:  
**JUNE BREEDING BIRD  
 SURVEY RESULTS  
 (SHEET 1 OF 3)**

KEY  
 --- PROPOSED FLOOD WALL  
 ▨ PROPOSED SCHEME EMBANKMENT

BTO SPECIES CODES

B. Blackbird	J. Jay
BC Blackcap	KF Kingfisher
BH Black-headed gull	LB Lesser black-backed gull
BT Blue tit	LR Lesser redpoll
BF Bullfinch	LT Long-tailed tit
CH Chaffinch	MG Magpie
CC Chiffchaff	MA Mallard
CT Coal tit	OC Oystercatcher
CD Collared dove	PW Pied wagtail
D. Dunnock	R. Robin
DI Dipper	RO Rook
GC Goldcrest	ST Song thrush
GO Goldfinch	SG Starling
GT Great tit	SH Sparrowhawk
H. Grey heron	SL Swallow
GL Grey wagtail	SI Swift
HG Herring gull	WH Common whitethroat
HC Hooded crow	WP Woodpigeon
HM House martin	WR Wren
HS House sparrow	WW Willow warbler
JD Jackdaw	ZL Feral goose

Note 1: Birds marked as *Red* are red listed species in Ireland and of High Conservation Concern  
 Note 2: Birds marked as *Amber* are amber listed species in Ireland and of Medium Conservation Concern

BIRD SYMBOLS

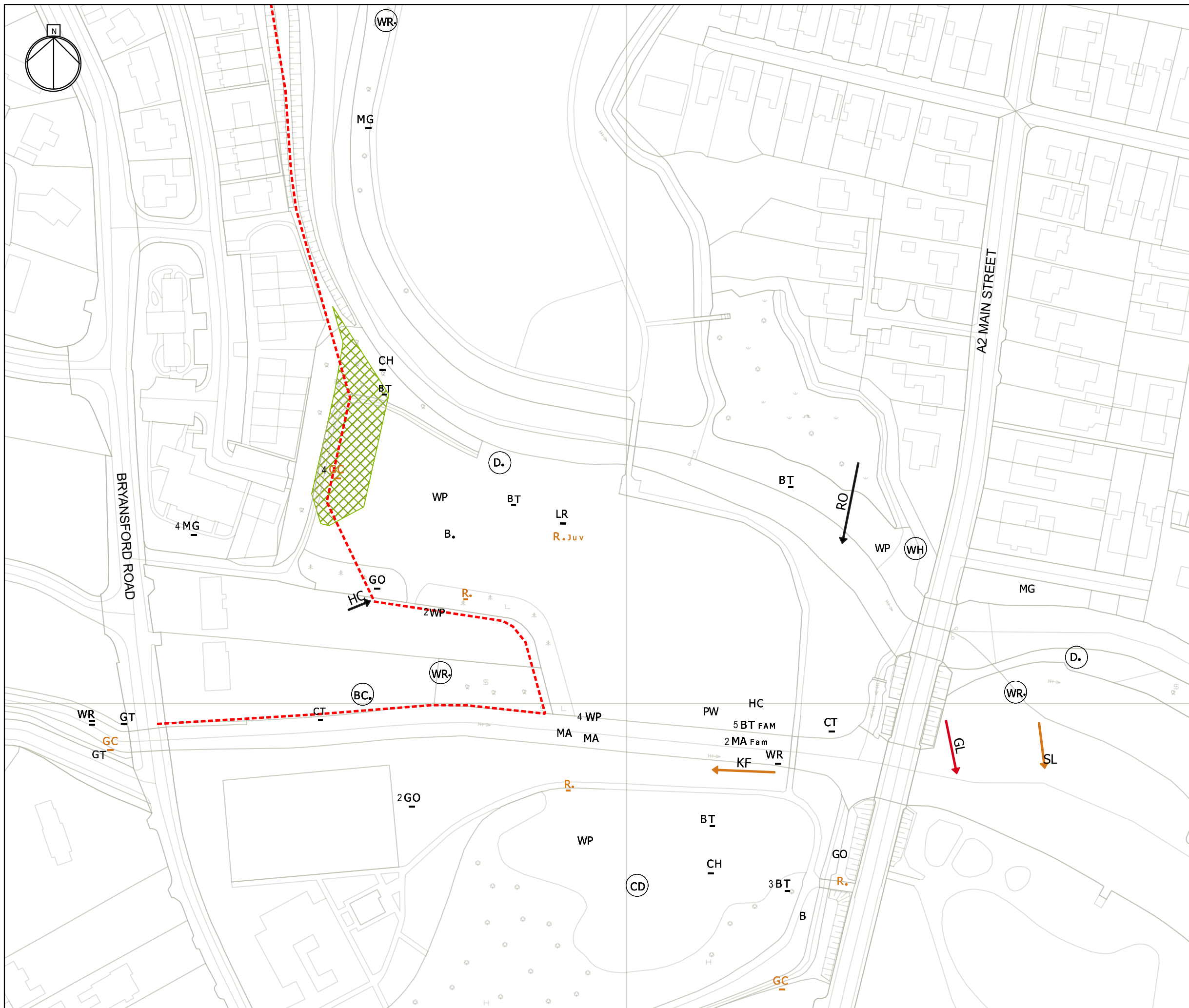
	Flight path
	Singing
	Calling
	Alarm call
	Juvenile
	Family
	Food Carrying food

Scale @ A3  
 1:1,300

AECOM Internal Project Number  
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**FIGURE 9.6.1**



Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  

 Department for Infrastructure An Roinn

Drawing Title:  
**JUNE BREEDING BIRD  
 SURVEY RESULTS  
 (SHEET 2 OF 3)**

- KEY**
- PROPOSED FLOOD WALLS
  - ▨ PROPOSED SCHEME EMBANKMENT
- BTO SPECIES CODES**
- |                      |                             |
|----------------------|-----------------------------|
| B. Blackbird         | J. Jay                      |
| BC Blackcap          | KF Kingfisher               |
| BH Black-headed gull | LB Lesser black-backed gull |
| BT Blue tit          | LR Lesser redpoll           |
| BF Bullfinch         | LT Long-tailed tit          |
| CH Chaffinch         | MG Magpie                   |
| CC Chiffchaff        | MA Mallard                  |
| CT Coal tit          | OC Oystercatcher            |
| CD Collared dove     | PW Pied wagtail             |
| D. Dunnock           | R. Robin                    |
| DI Dipper            | RO Rook                     |
| GC Goldcrest         | ST Song thrush              |
| GO Goldfinch         | SG Starling                 |
| GT Great tit         | SH Sparrowhawk              |
| H. Grey heron        | SL Swallow                  |
| GL Grey wagtail      | SI Swift                    |
| HG Herring gull      | WH Common whitethroat       |
| HC Hooded crow       | WP Woodpigeon               |
| HM House martin      | WR Wren                     |
| HS House sparrow     | WW Willow warbler           |
| JD Jackdaw           | ZL Feral goose              |

Note 1: Birds marked as **Red** are red listed species in Ireland and of High Conservation Concern  
 Note 2: Birds marked as **Amber** are amber listed species in Ireland and of Medium Conservation Concern

- BIRD SYMBOLS**
- Flight path
  - Singing
  - Calling
  - Alarm call
  - Juvenile
  - Family
  - Food Carrying food

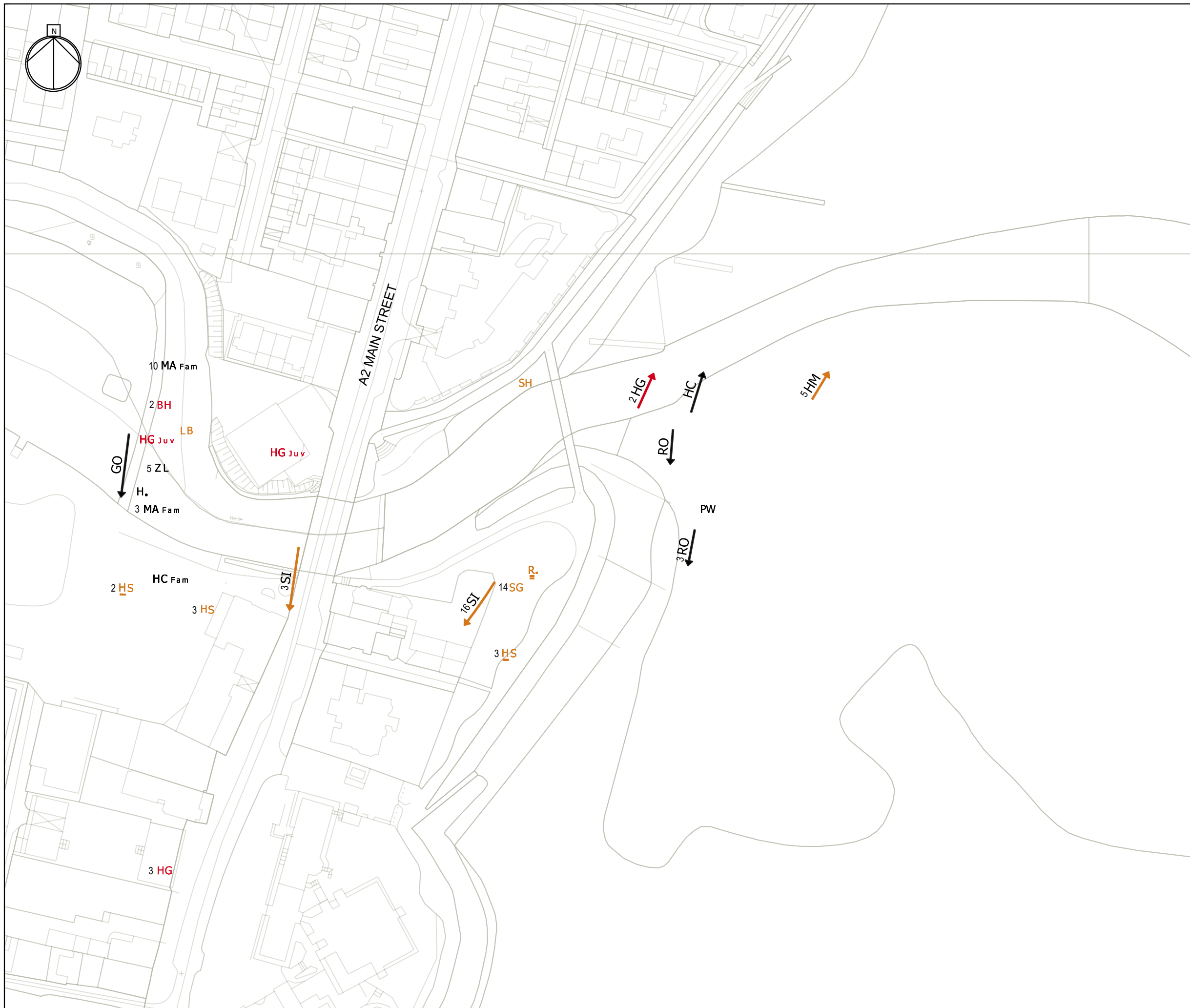
Scale @ A3  
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**FIGURE 9.6.1**

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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  

 Infrastructure Bonneagair

Drawing Title:  
**JUNE BREEDING BIRD  
 SURVEY RESULTS  
 (SHEET 3 OF 3)**

**KEY**  
 ■ PROPOSED FLOOD WALLS  
 ▭ PROPOSED SCHEME EMBANKMENT

**BTO SPECIES CODES**

B. Blackbird	J. Jay
BC Blackcap	KF Kingfisher
BH Black-headed gull	LB Lesser black-backed gull
BT Blue tit	LR Lesser redpoll
BF Bullfinch	LT Long-tailed tit
CH Chaffinch	MG Magpie
CC Chiffchaff	MA Mallard
CT Coal tit	OC Oystercatcher
CD Collared dove	PW Pied wagtail
D. Dunnock	R. Robin
DI Dipper	RO Rook
GC Goldcrest	ST Song thrush
GO Goldfinch	SG Starling
GT Great tit	SH Sparrowhawk
H. Grey heron	SL Swallow
GL Grey wagtail	SI Swift
HG Herring gull	WH Common whitethroat
HC Hooded crow	WP Woodpigeon
HM House martin	WR Wren
HS House sparrow	WW Willow warbler
JD Jackdaw	ZL Feral goose

Note 1: Birds marked as Red are red listed species in Ireland and of High Conservation Concern  
 Note 2: Birds marked as Amber are amber listed species in Ireland and of Medium Conservation Concern

**BIRD SYMBOLS**

	Flight path
	Singing
	Calling
	Alarm call
Juv	Juvenile
Fam	Family
Food	Carrying food

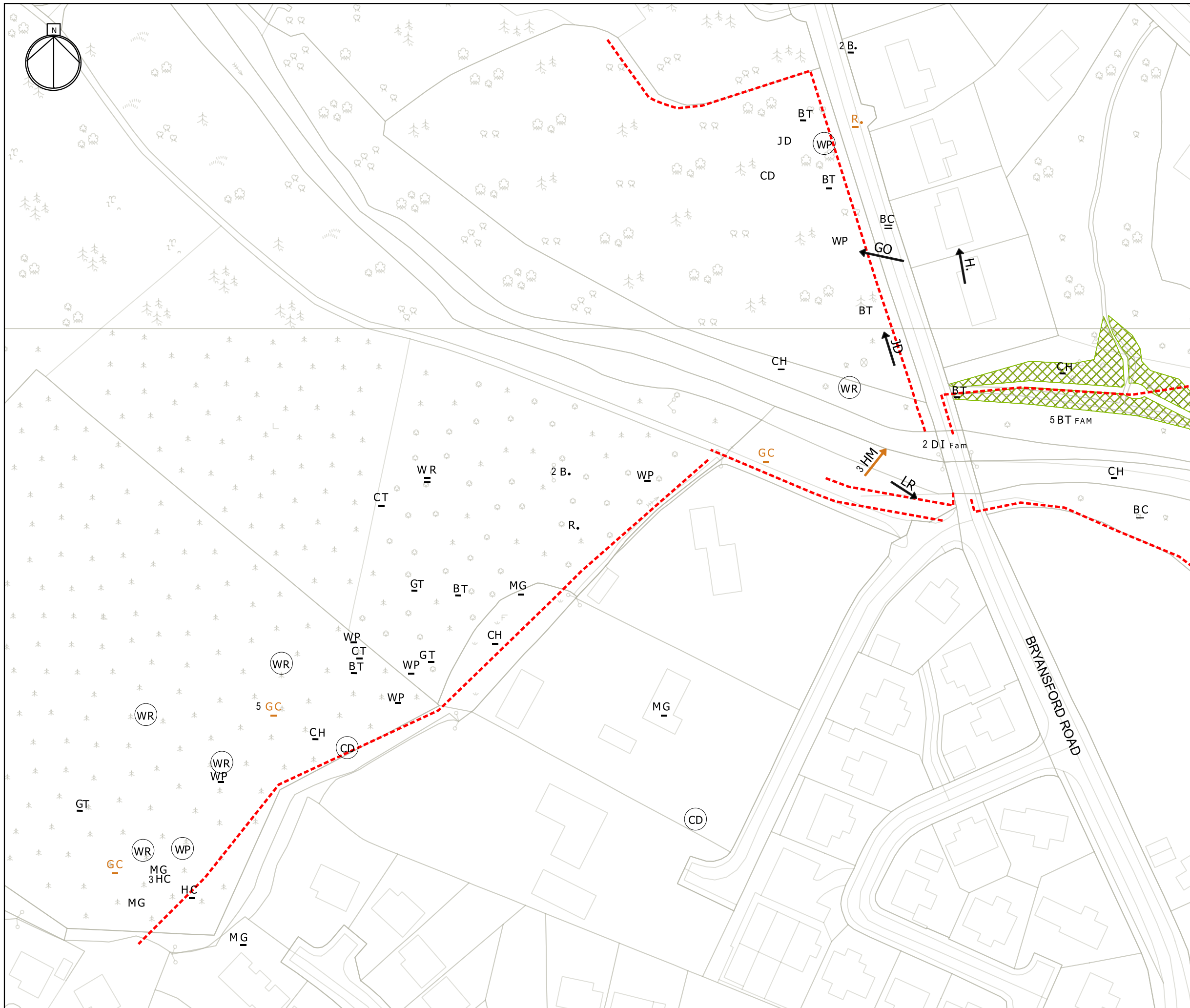
Scale @ A3  
 1:1,300

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**FIGURE 9.6.1**

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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  

 Infrastructure Bonneair

Drawing Title:  
**JULY BREEDING BIRD  
 SURVEY RESULTS  
 (SHEET 1 OF 4)**

**KEY**

- - - PROPOSED FLOOD WALLS
- PROPOSED SCHEME EMBANKMENT

**BTO SPECIES CODES**

B. Blackbird	J. Jay
BC Blackcap	KF Kingfisher
BH Black-headed gull	LB Lesser black-backed gull
BT Blue tit	LR Lesser redpoll
BF Bullfinch	LT Long-tailed tit
CH Chaffinch	MG Magpie
CC Chiffchaff	MA Mallard
CT Coal tit	OC Oystercatcher
CD Collared dove	PW Pied wagtail
D. Dunnock	R. Robin
DI Dipper	RO Rook
GC Goldcrest	ST Song thrush
GO Goldfinch	SG Starling
GT Great tit	SH Sparrowhawk
H. Grey heron	SL Swallow
GL Grey wagtail	SI Swift
HG Herring gull	WH Common whitethroat
HC Hooded crow	WP Woodpigeon
HM House martin	WR Wren
HS House sparrow	WW Willow warbler
JD Jackdaw	ZL Feral goose

Note 1: Birds marked as Red are red listed species in Ireland and of High Conservation Concern  
 Note 2: Birds marked as Amber are amber listed species in Ireland and of Medium Conservation Concern

**BIRD SYMBOLS**

	Flight path
	Singing
	Calling
	Alarm call
	Juvenile
	Family
	Food Carrying food

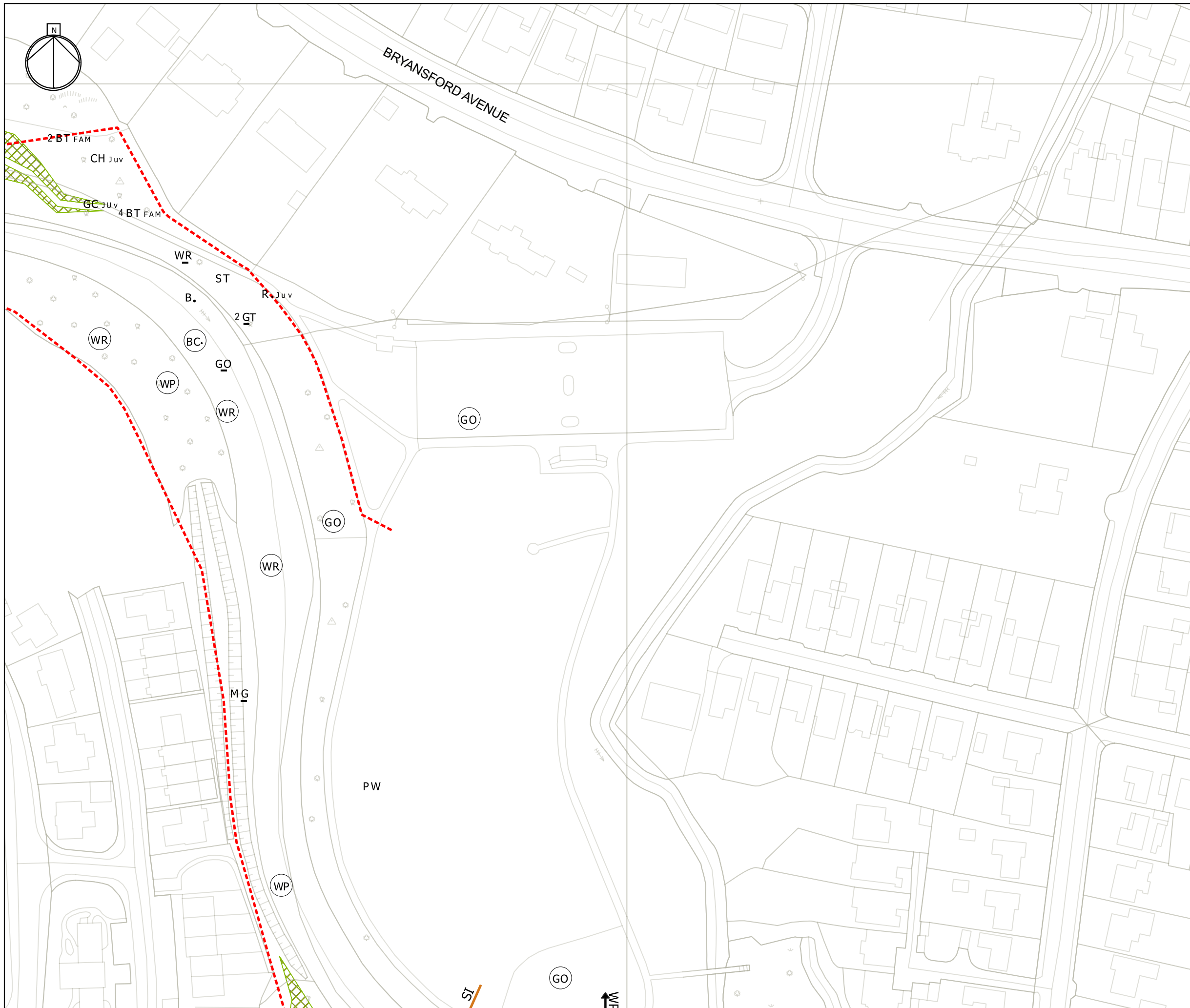
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 1:1,100

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**FIGURE 9.6.2**

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**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  


Drawing Title:  
**JULY BREEDING BIRD  
 SURVEY RESULTS  
 (SHEET 2 OF 4)**

**KEY**

- PROPOSED FLOOD WALLS
- PROPOSED SCHEME EMBANKMENT

**BTO SPECIES CODES**

B. Blackbird	J. Jay
BC Blackcap	KF Kingfisher
BH Black-headed gull	LB Lesser black-backed gull
BT Blue tit	LR Lesser redpoll
BF Bullfinch	LT Long-tailed tit
CH Chaffinch	MG Magpie
CC Chiffchaff	MA Mallard
CT Coal tit	OC Oystercatcher
CD Collared dove	PW Pied wagtail
D. Dunnock	R. Robin
DI Dipper	RO Rook
GC Goldcrest	ST Song thrush
GO Goldfinch	SG Starling
GT Great tit	SH Sparrowhawk
H. Grey heron	SL Swallow
GL Grey wagtail	SI Swift
HG Herring gull	WH Common whitethroat
HC Hooded crow	WP Woodpigeon
HM House martin	WR Wren
HS House sparrow	WW Willow warbler
JD Jackdaw	ZL Feral goose

Note 1: Birds marked as \* are red listed species in Ireland and of High Conservation Concern  
 Note 2: Birds marked as \* are amber listed species in Ireland and of Medium Conservation Concern

**BIRD SYMBOLS**

	Flight path
	Singing
	Calling
	Alarm call
Juv	Juvenile
Fam	Family
Food	Carrying food

Scale @ A3  
 1:1,100

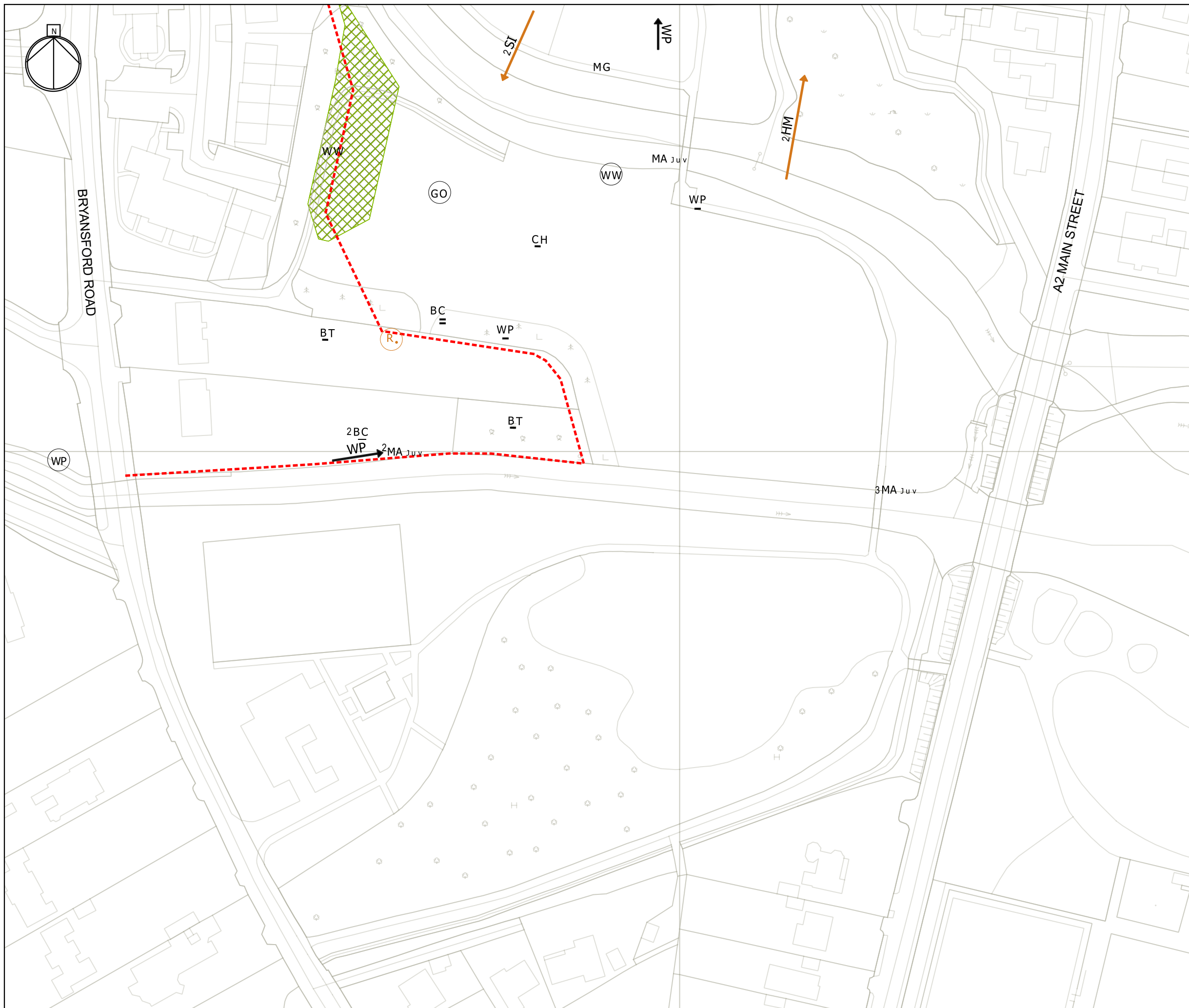
AECOM Internal Project Number  
 60556684

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## FIGURE 9.6.2

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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client:  

 Department for Infrastructure An tOifig

Drawing Title:  
**JULY BREEDING BIRD  
 SURVEY RESULTS  
 (SHEET 3 OF 4)**

**KEY**  
 - - - PROPOSED FLOOD WALLS  
 PROPOSED SCHEME EMBANKMENT

**BTO SPECIES CODES**

B Blackbird	J Jay
BC Blackcap	KF Kingfisher
BH Black-headed gull	LB Lesser black-backed gull
BT Blue tit	LR Lesser redpoll
BF Bullfinch	LT Long-tailed tit
CH Chaffinch	MG Magpie
CC Chiffchaff	MA Mallard
CT Coal tit	OC Oystercatcher
CD Collared dove	PW Pied wagtail
D. Dunnock	R. Robin
DI Dipper	RO Rook
GC Goldcrest	ST Song thrush
GO Goldfinch	SG Starling
GT Great tit	SH Sparrowhawk
H. Grey heron	SL Swallow
GL Grey wagtail	SI Swift
HG Herring gull	WH Common whitethroat
HC Hooded crow	WP Woodpigeon
HM House martin	WR Wren
HS House sparrow	WW Willow warbler
JD Jackdaw	ZL Feral goose

Note 1: Birds marked as Red are red listed species in Ireland and of High Conservation Concern  
 Note 2: Birds marked as Amber are amber listed species in Ireland and of Medium Conservation Concern

**BIRD SYMBOLS**

	Flight path
	Singing
	Calling
	Alarm call
	Juv Juvenile
	Fam Family
	Food Carrying food

Scale @ A3  
 1:1,100

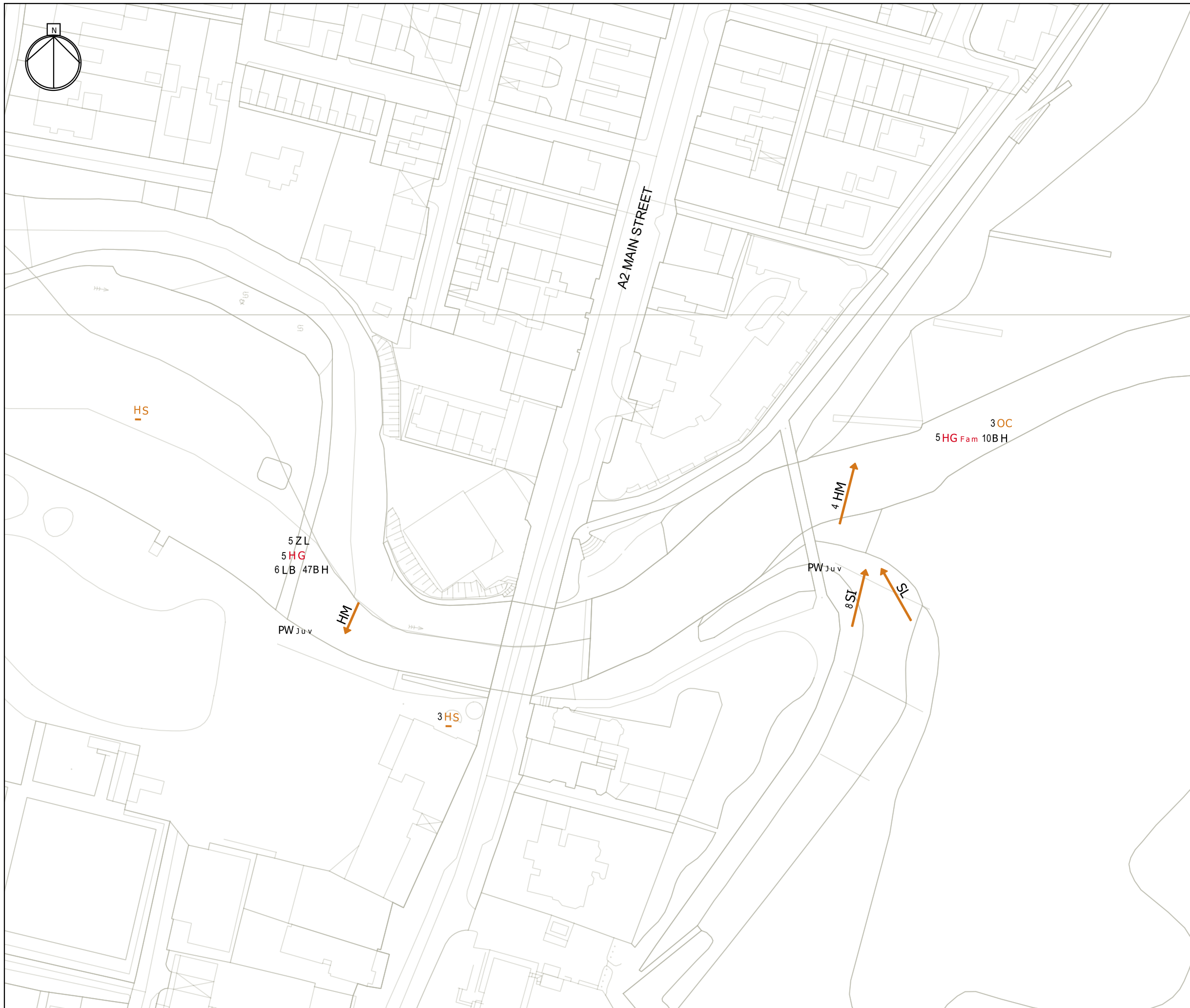
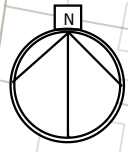
AECOM Internal Project Number  
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Project Title:  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**



Drawing Title:  
**JULY BREEDING BIRD  
 SURVEY RESULTS  
 (SHEET 4 OF 4)**

**KEY**

- PROPOSED FLOOD WALLS
- PROPOSED SCHEME EMBANKMENT

**BTO SPECIES CODES**

B Blackbird	J Jay
BC Blackcap	KF Kingfisher
BH Black-headed gull	LB Lesser black-backed gull
BT Blue tit	LR Lesser redpoll
BF Bullfinch	LT Long-tailed tit
CH Chaffinch	MG Magpie
CC Chiffchaff	MA Mallard
CT Coal tit	OC Oystercatcher
CD Collared dove	PW Pied wagtail
D. Duncock	R. Robin
DI Dipper	RO Rook
GC Goldcrest	ST Song thrush
GO Goldfinch	SG Starling
GT Great tit	SH Sparrowhawk
H. Grey heron	SL Swallow
GL Grey wagtail	SI Swift
HG Herring gull	WH Common whitethroat
HC Hooded crow	WP Woodpigeon
HM House martin	WR Wren
HS House sparrow	WW Willow warbler
JD Jackdaw	ZL Feral goose

Note 1: Birds marked as Red are red listed species in Ireland and of High Conservation Concern  
 Note 2: Birds marked as Amber are amber listed species in Ireland and of Medium Conservation Concern

**BIRD SYMBOLS**

- Flight path
- Singing
- Calling
- Alarm call
- Juvenile
- Family
- Carrying food

Scale @ A3  
 1:1,100

AECOM Internal Project Number  
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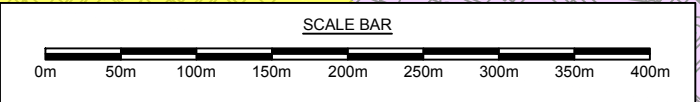
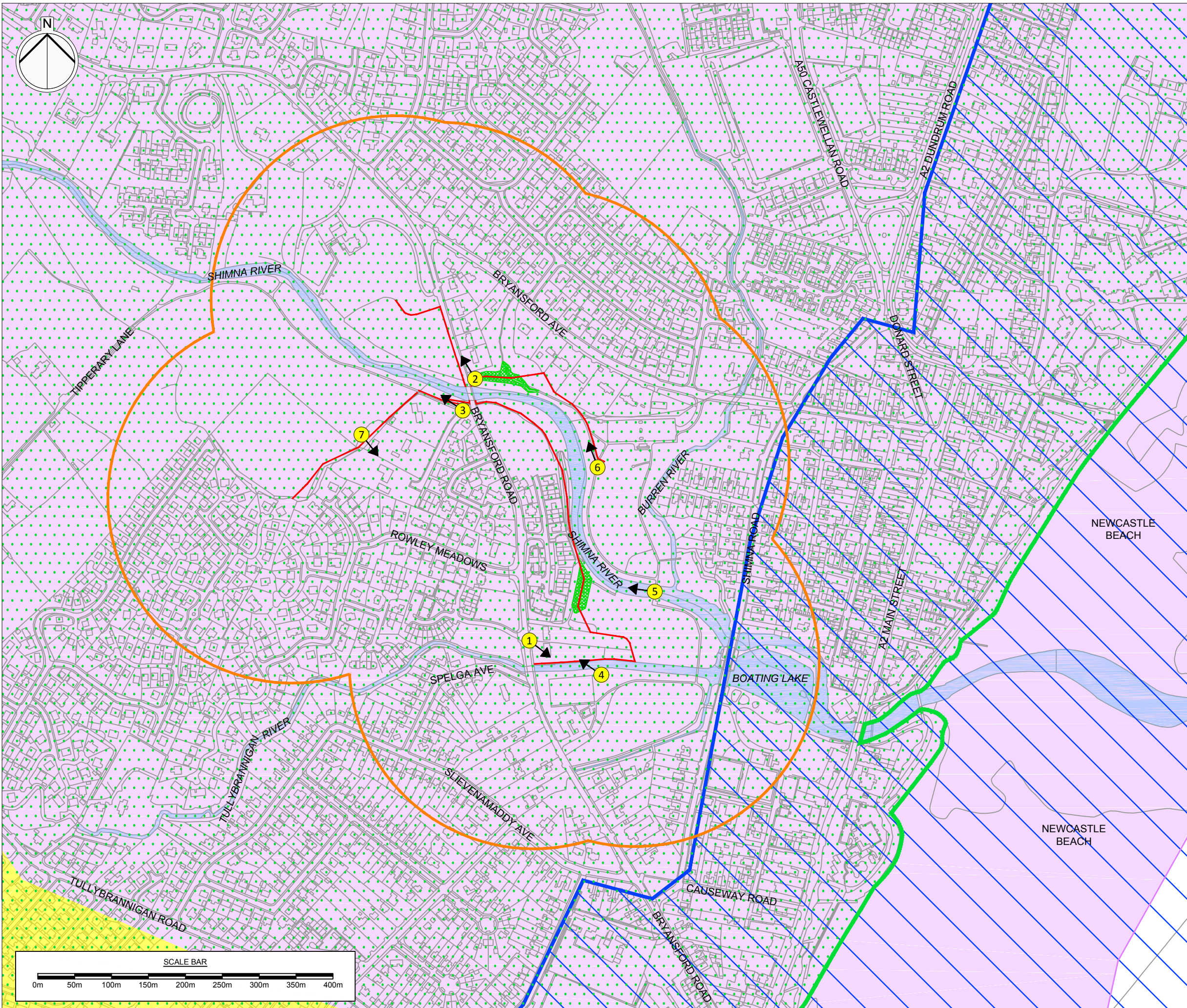
## FIGURE 9.6.2

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client

Drawing Title  
**LANDSCAPE & VISUAL  
 LANDSCAPE CHARACTER**

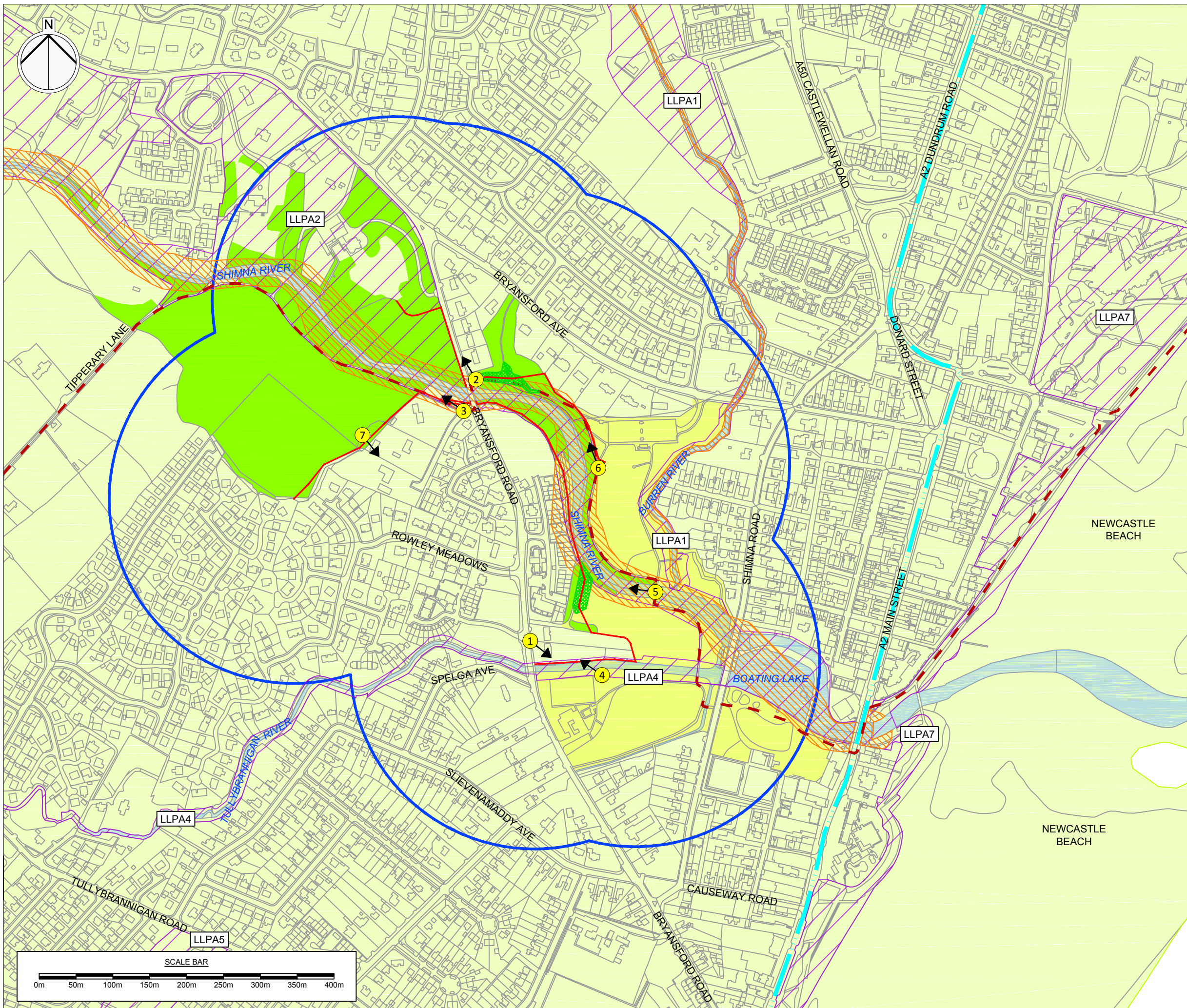
- KEY**
- PROPOSED SCHEME
  - PROPOSED SCHEME EMBANKMENT
  - WATERCOURSE
  - 250M OFFSET STUDY AREA
- LANDSCAPE CHARACTER AREAS**
- NEWCASTLE VALLEYS
  - MOURNE FOOTHILLS
- REGIONAL LANDSCAPE CHARACTER ASSESSMENT**
- MOURNE AND SLIEVE CROOB
- SEASCAPE CHARACTER AREAS**
- DUNDRUM BAY
- VIEWPOINT LOCATION

Scale @ A3  
 1:5000  
 AECOM Internal Project Number  
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**FIGURE 10.1**













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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  
 **Infrastructure** 

Drawing Title  
**LANDSCAPE & VISUAL  
 LANDSCAPE DESIGNATIONS**

- KEY**
-  PROPOSED SCHEME
  -  PROPOSED SCHEME EMBANKMENT
  -  WATERCOURSE
  -  250M OFFSET STUDY AREA
  -  AREA OUTSTANDING NATURAL BEAUTY (AONB)
  -  LOCAL LANDSCAPE POLICY AREAS (LLPA)
  -  WOODLAND PARK
  -  EXISTING AMENITY OPEN SPACE AND RECREATION
  -  SITE OF LOCAL NATURE CONSERVATION IMPORTANCE (SLNCI)
  -  SAINT PATRICK'S WAY WALKING ROUTE
  -  MOURNE COASTAL DRIVING ROUTE
  -  VIEWPOINT LOCATION

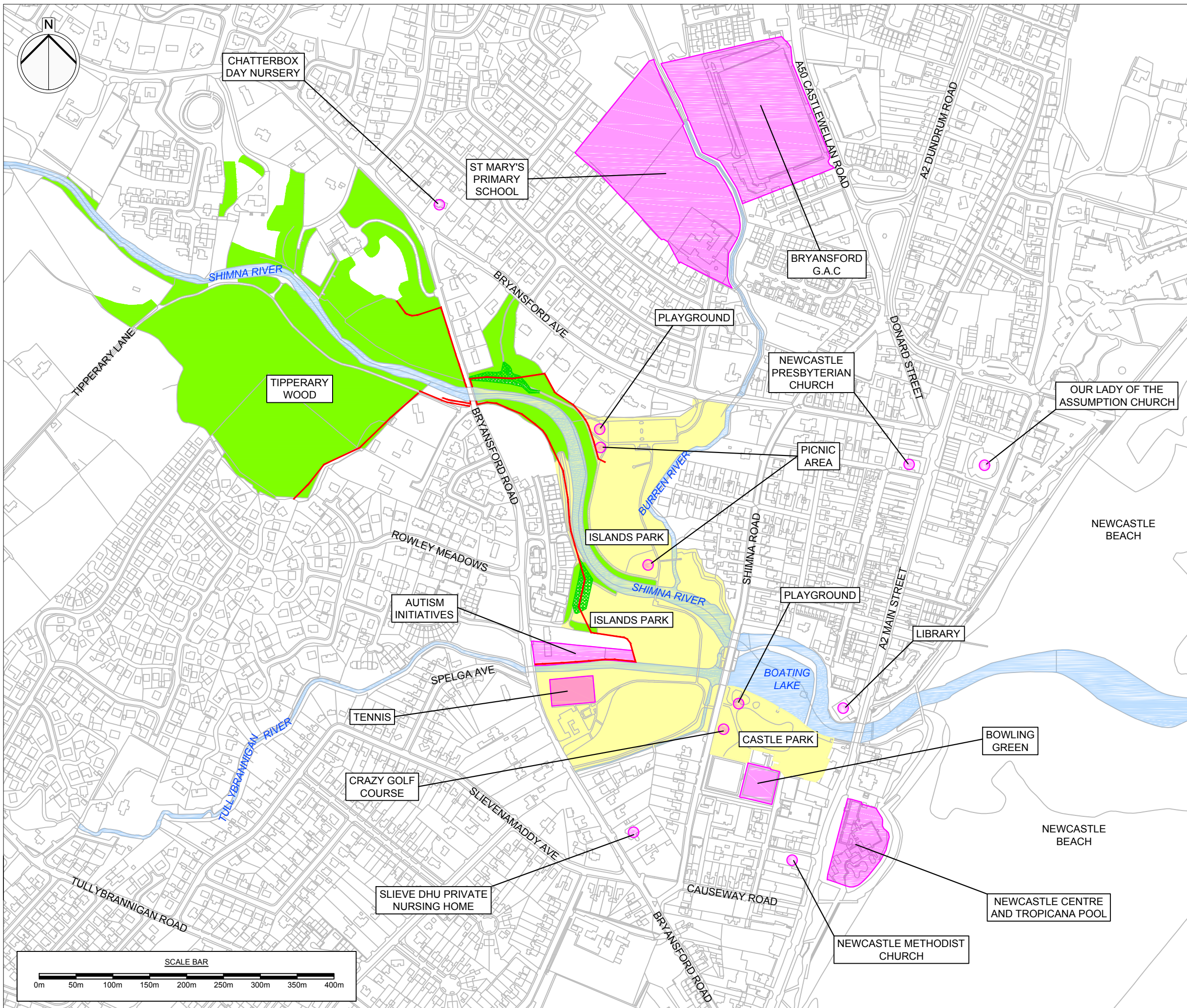
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 AECOM Internal Project Number  
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**FIGURE 10.2**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**POPULATION & HUMAN HEALTH  
 PRIVATE & COMMUNITY ASSETS**

KEY

- PROPOSED SCHEME
- ▨ PROPOSED SCHEME EMBANKMENT
- WATERCOURSE
- ▨ COMMUNITY FACILITY
- ▨ EXISTING AMENITY OPEN SPACE AND RECREATION
- ▨ WOODLAND

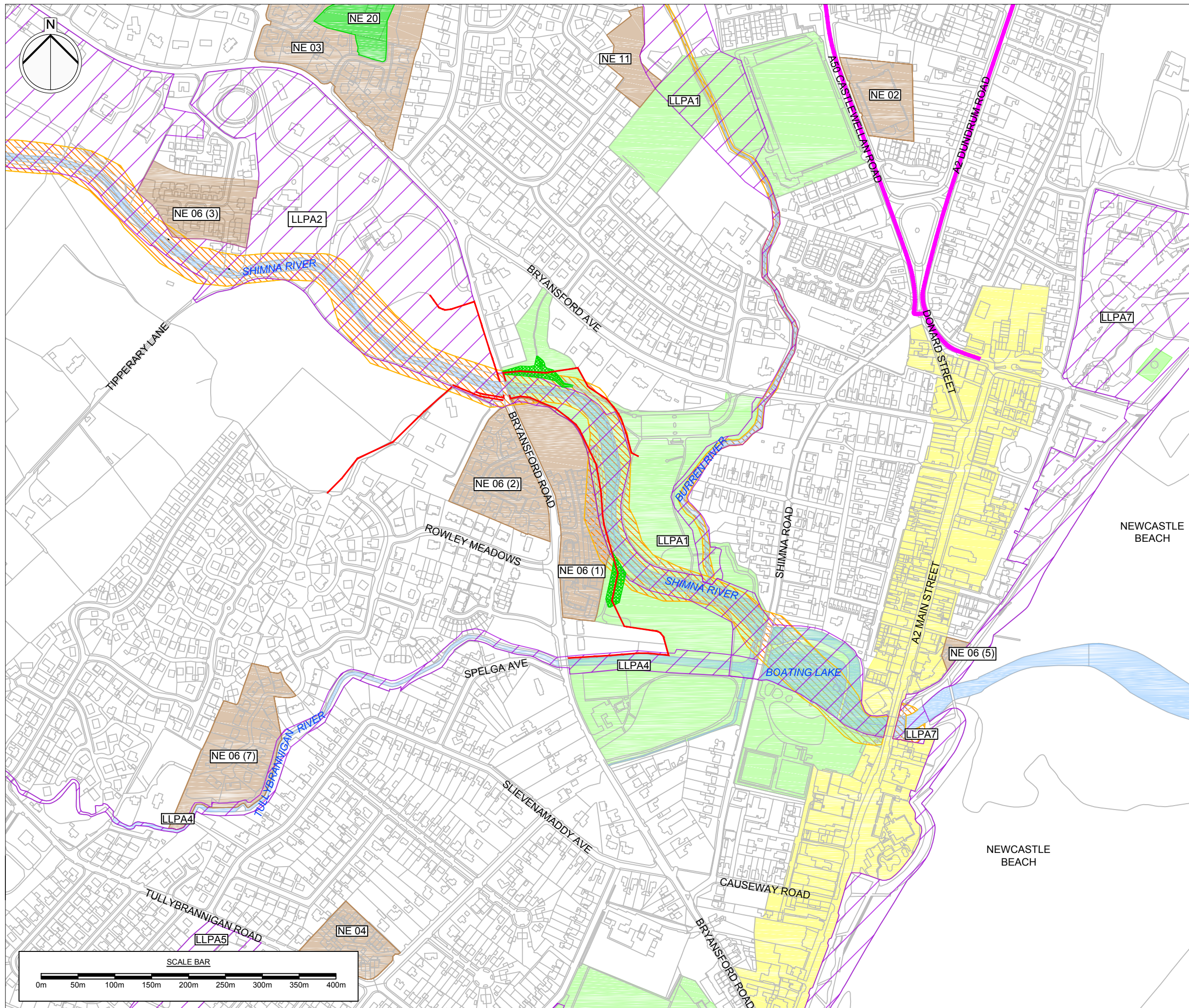
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 AECOM Internal Project Number  
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**FIGURE 11.1**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client

Drawing Title  
**POPULATION & HUMAN HEALTH  
 AREA PLAN DESIGNATIONS**

**KEY**

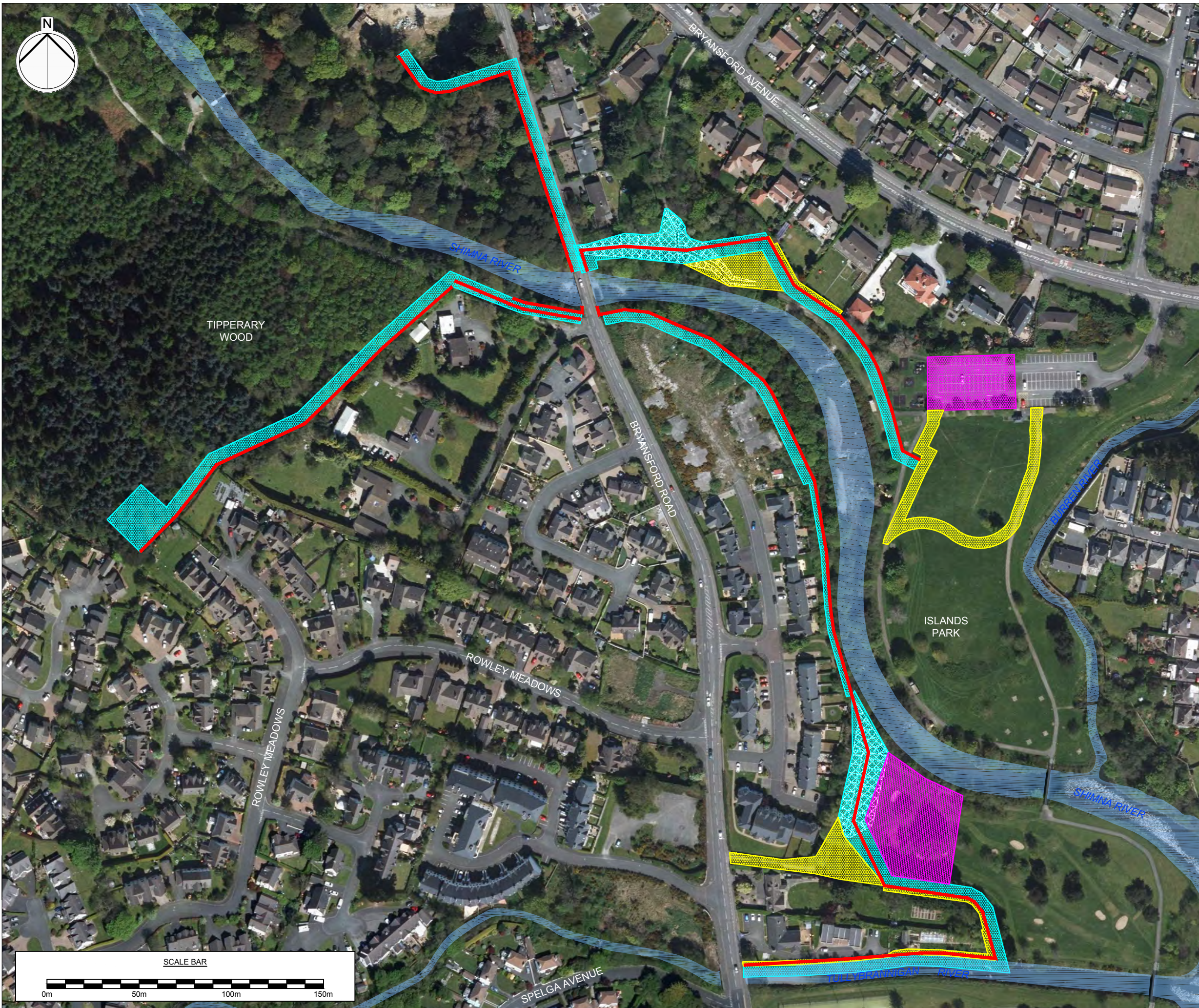
- PROPOSED SCHEME
- PROPOSED SCHEME EMBANKMENT
- WATERCOURSE
- PROTECTED ROUTE
- PROPOSED AMENITY OPEN SPACE AND RECREATION
- LOCAL LANDSCAPE POLICY AREAS (LLPA)
- TOWN CENTRE
- EXISTING AMENITY OPEN SPACE AND RECREATION
- SITE OF LOCAL NATURE CONSERVATION IMPORTANCE (SLNCI)
- LAND ZONED FOR HOUSING

SOURCE: ARDS DOWN AREA PLAN 2015  
 Scale @ A3  
 1:5000  
 AECOM Internal Project Number  
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**FIGURE 11.2**







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Project Title  
**SHIMNA  
FLOOD ALLEVIATION SCHEME  
NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**POPULATION & HUMAN HEALTH  
PROPOSED WORKING AREA**

- KEY**
-  PROPOSED SCHEME
  -  PROPOSED SCHEME EMBANKMENT
  -  WATERCOURSE
  -  CONSTRUCTION AREA (FULL CLEARANCE OF VEGETATION / TREES REQUIRED)
  -  CONTRACTOR WORKING AREA (TEMPORARY ACCESS REQUIRED WITH HERAS FENCING ERRECTED TO SEGREGATE CONTRACTOR FROM PUBLIC)
  -  POSSIBLE CONTRACTOR COMPOUNDS (COMPOUND FENCING TO BE ERRECTED TO SEGREGATE CONTRACTOR FROM PUBLIC)

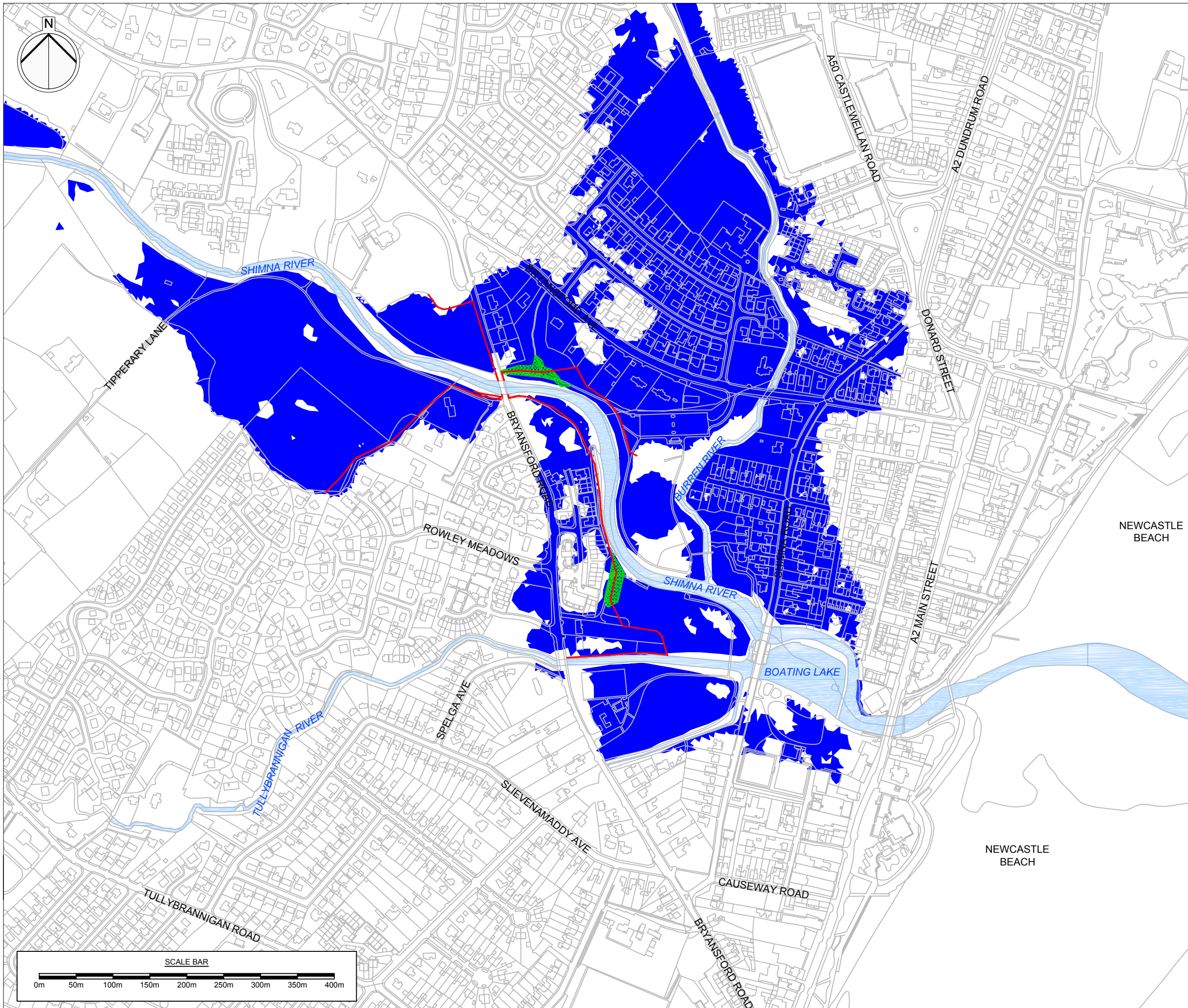
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AECOM Internal Project Number  
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**FIGURE 11.3**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client

Drawing Title  
**POPULATION & HUMAN HEALTH  
 WATERCOURSES AND EXISTING Q100  
 MODELED FLOODPLAIN**

KEY

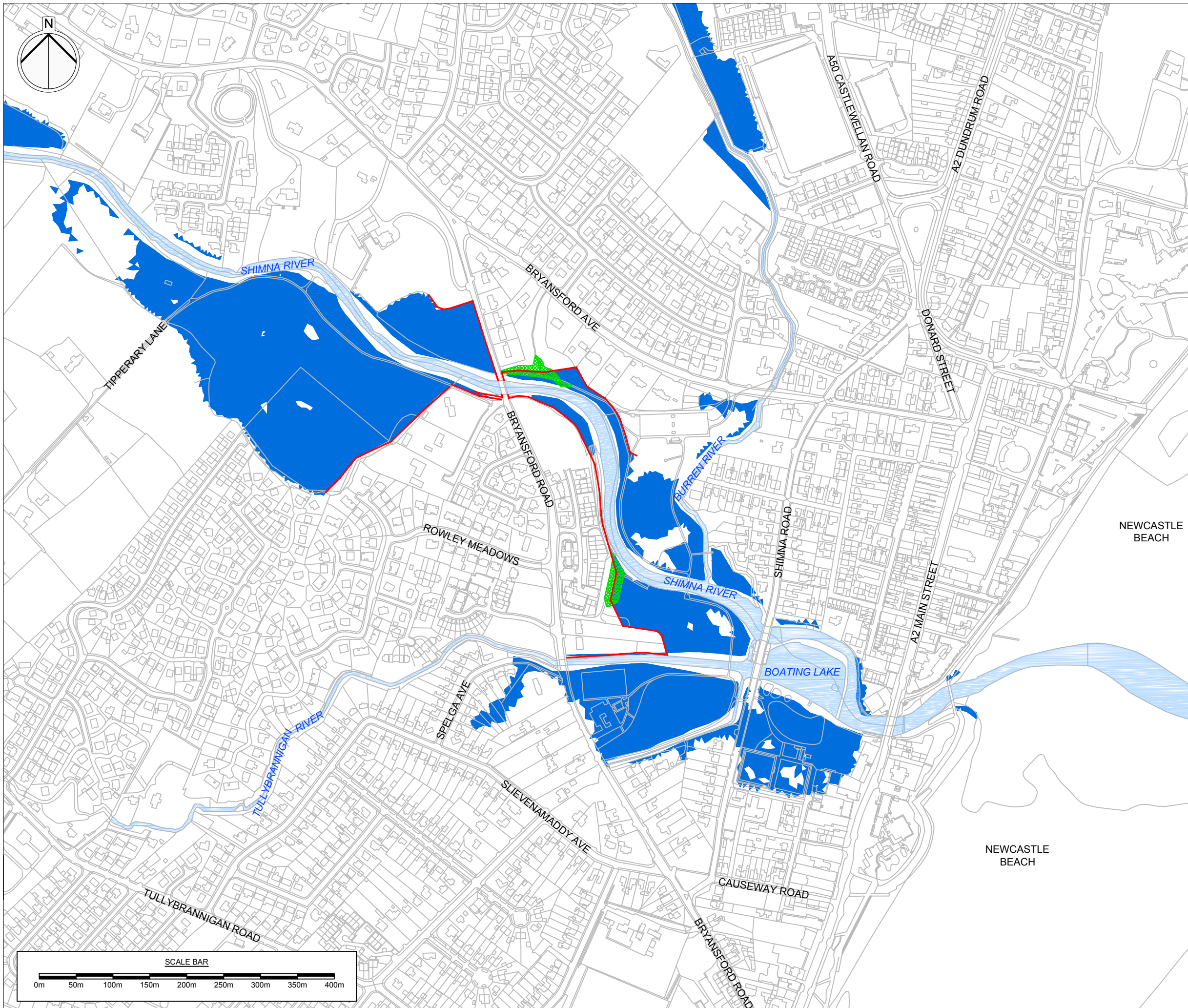
- PROPOSED SCHEME
- PROPOSED SCHEME EMBANKMENT
- WATERCOURSE
- EXISTING Q100 MODELED FLOODPLAIN

Scale @ A3  
 1:5000  
 AECOM Internal Project Number  
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**FIGURE 11.4**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client

Drawing Title  
**POPULATION & HUMAN HEALTH  
 WATERCOURSES AND DEFENDED Q100  
 MODELED FLOODPLAIN**

KEY  
 PROPOSED SCHEME  
 PROPOSED SCHEME EMBANKMENT  
 WATERCOURSE  
 DEFENDED Q100 MODELED FLOODPLAIN

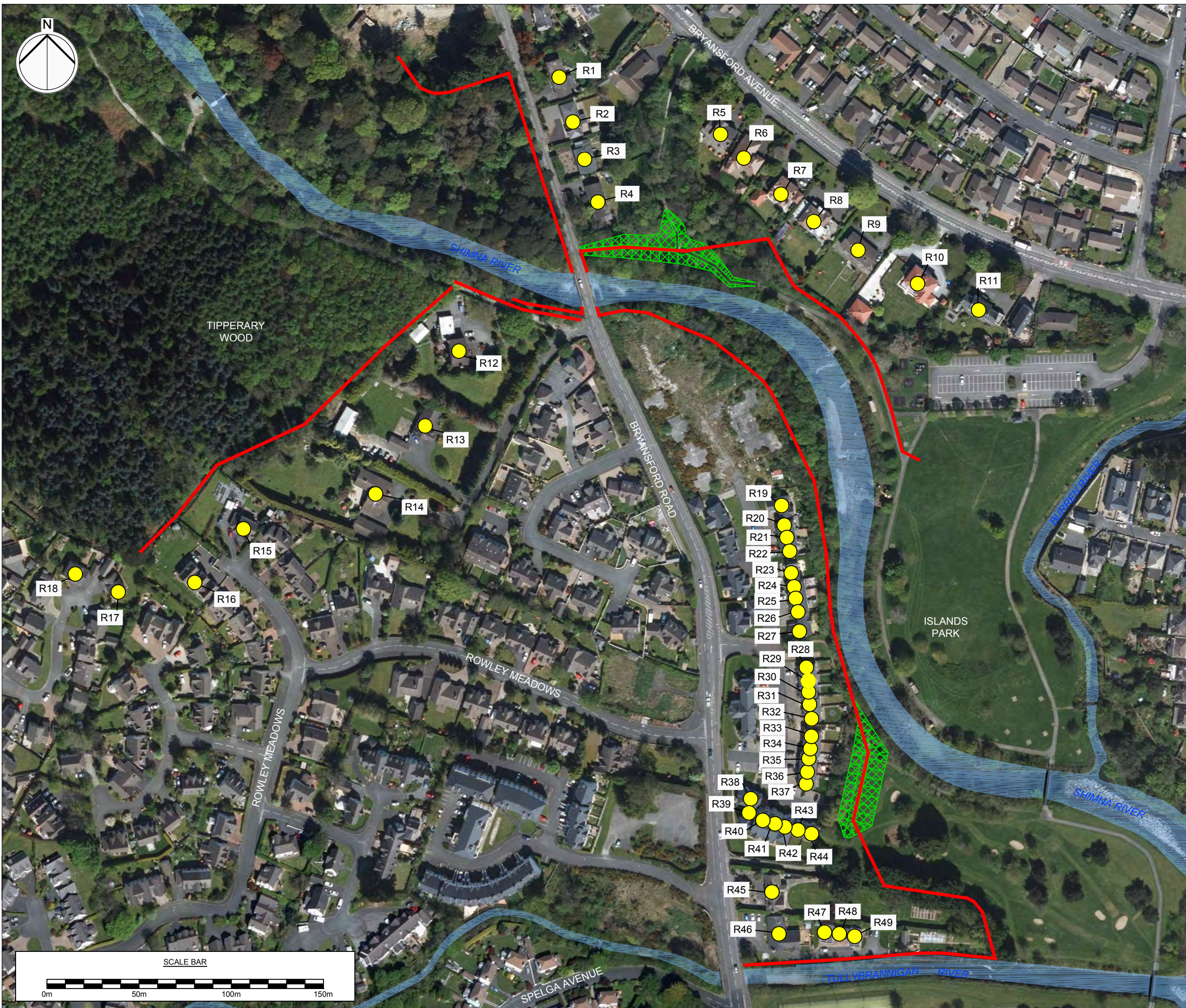
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**FIGURE 11.5**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  

 Department for Infrastructure

Drawing Title  
**NOISE & VIBRATION  
 NOISE RECEPTOR LOCATIONS**

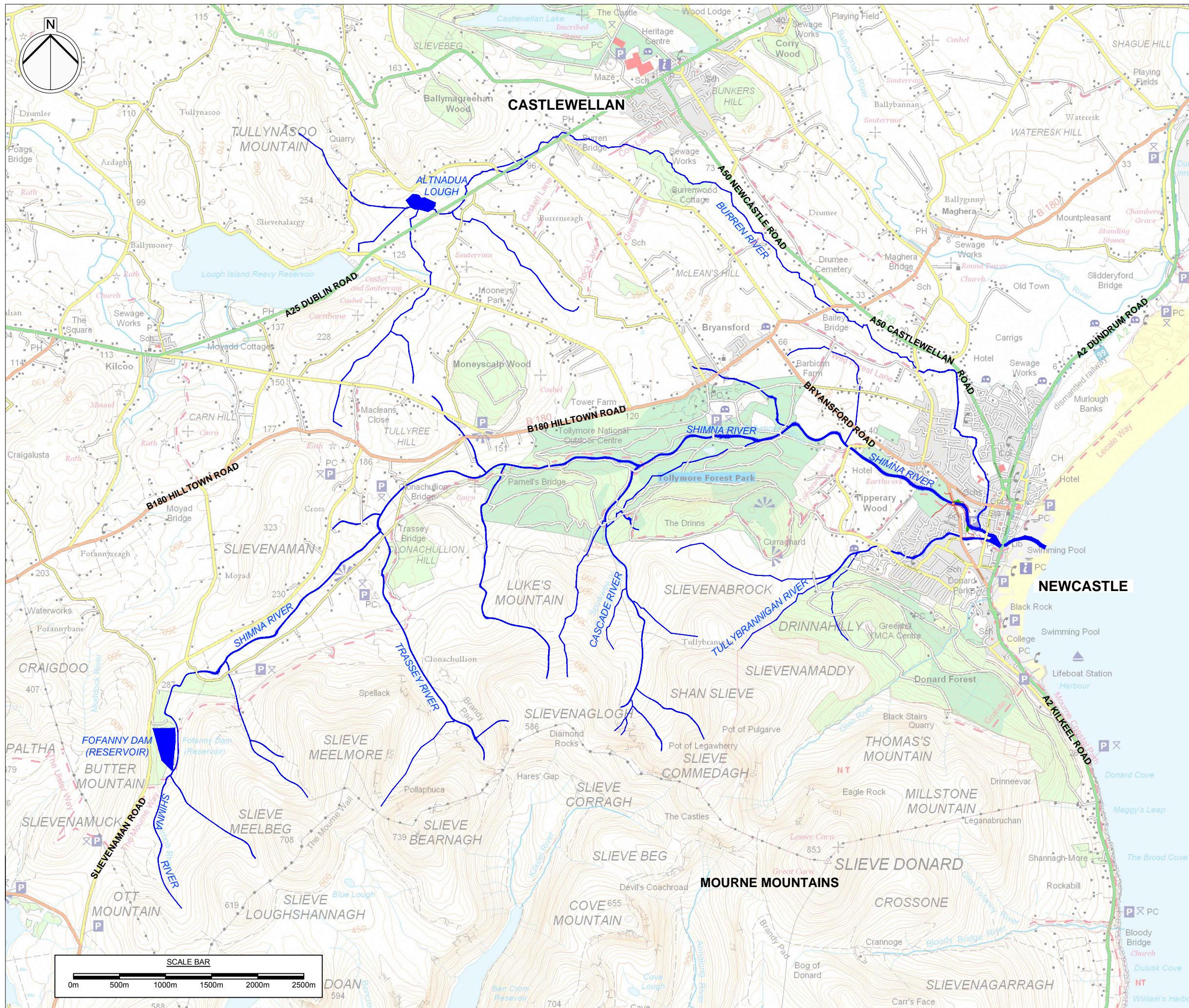
KEY  
 PROPOSED SCHEME  
 WATERCOURSE  
 PROPOSED SCHEME EMBANKMENT  
 RECEPTOR

Scale @ A3  
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 AECOM Internal Project Number  
 60556684

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**FIGURE 12.1**


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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**DRAINAGE & THE WATER ENVIRONMENT**  
  
**SHIMNA RIVER  
 CATCHMENT**

KEY  
 SHIMNA CATCHMENT WATERCOURSES

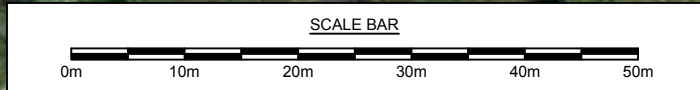
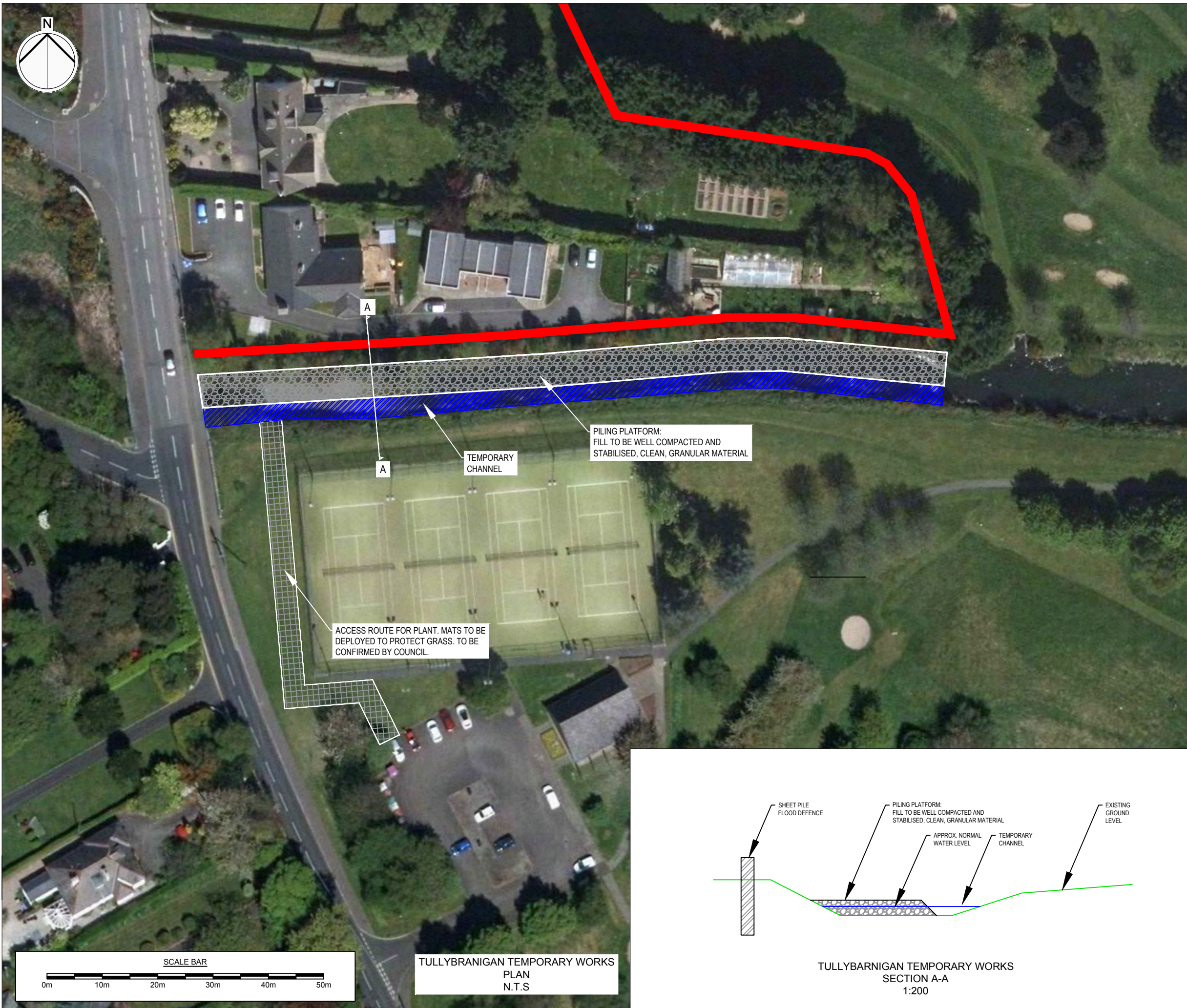
Scale @ A3  
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**FIGURE 13.1**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  
 Department for Infrastructure  Bonnegair

Drawing Title  
**DRAINAGE & THE WATER ENVIRONMENT**

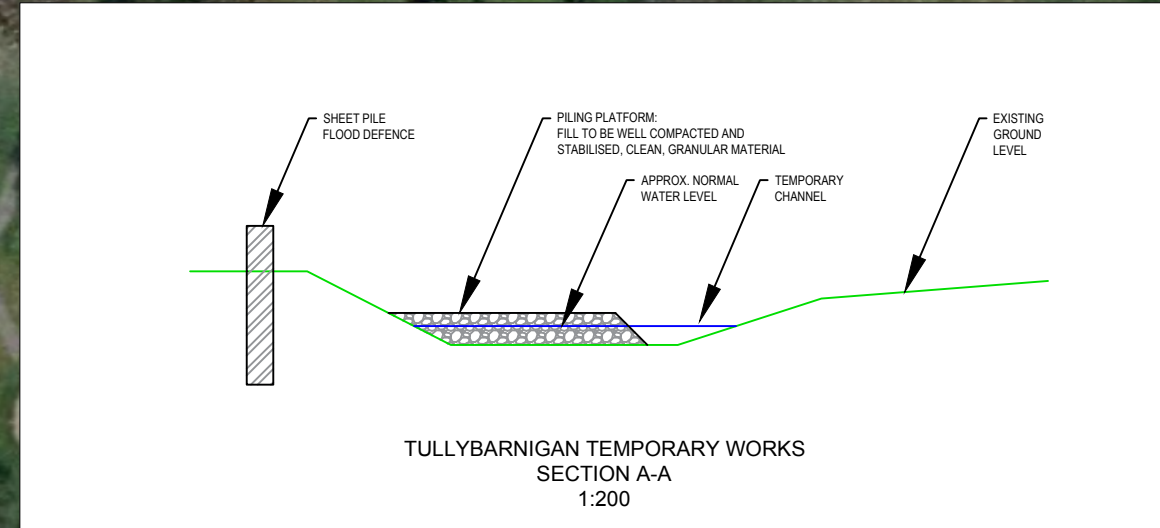
**TULLYBRANNIGAN RIVER  
 TEMPORARY WORKS**

- KEY**
-  PROPOSED SCHEME
  -  PILING PLATFORM
  -  TEMPORARY CHANNEL
  -  ACCESS ROUTE

Scale @ A3  
 AS SHOWN  
 AECOM Internal Project Number  
 60556684

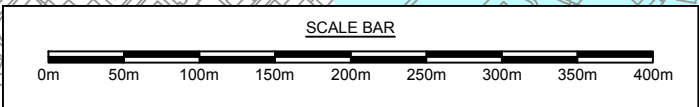
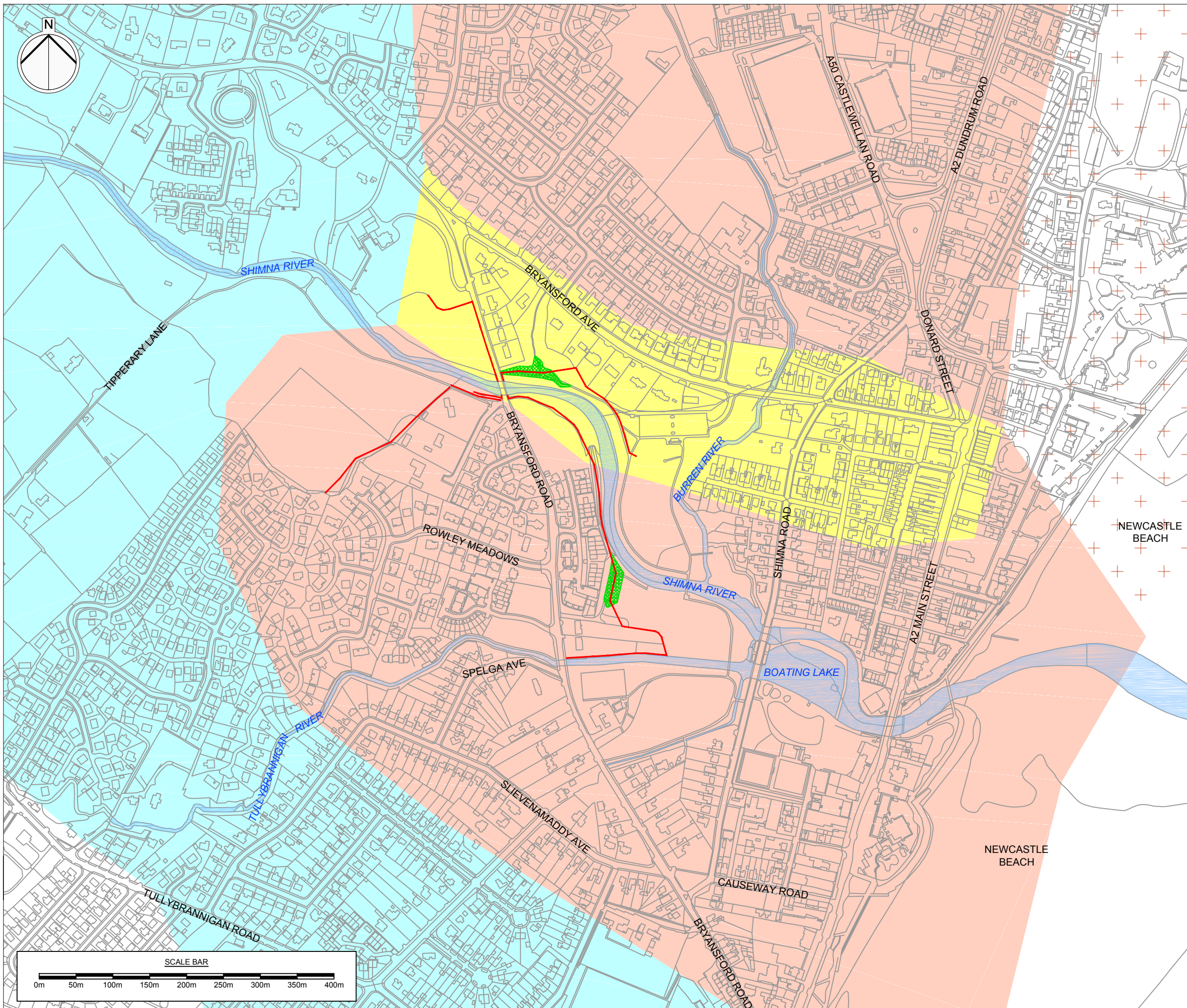
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**FIGURE 13.2**



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Project Title  
**SHIMNA  
FLOOD ALLEVIATION SCHEME  
NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**GEOLOGY & SOILS  
DRIFT GEOLOGY**

- KEY
-  PROPOSED SCHEME
  -  PROPOSED SCHEME EMBANKMENT
  -  WATERCOURSE
  -  ALLUVIUM GEOLOGY
  -  BLOWN SANDS
  -  RAISED BEACH
  -  TILL

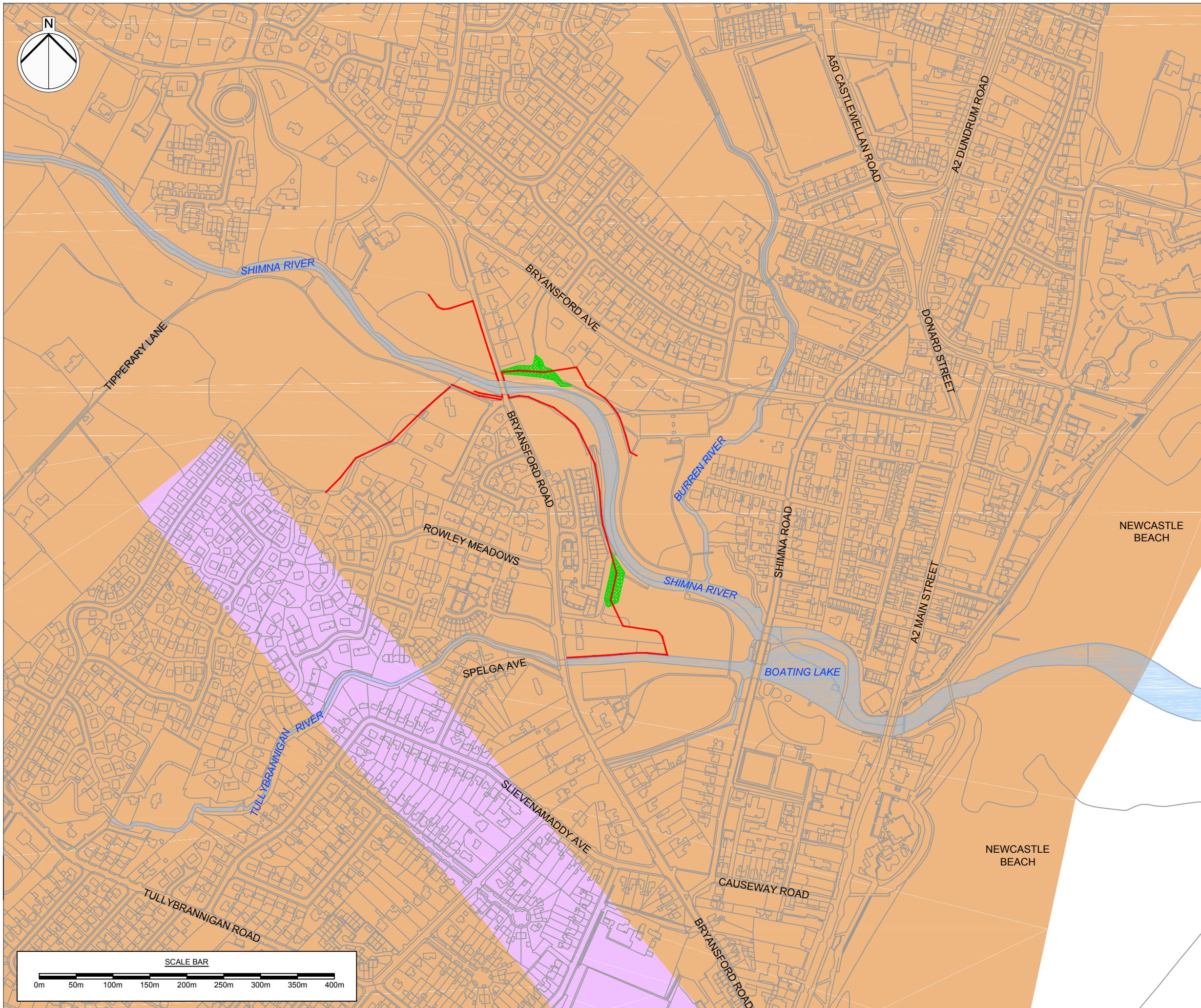
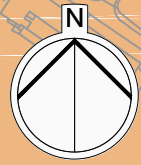
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AECOM Internal Project Number  
60556684

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**FIGURE 14.1**

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Project Title  
**SHIMNA  
FLOOD ALLEVIATION SCHEME  
NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**GEOLOGY & SOILS  
SOLID GEOLOGY**

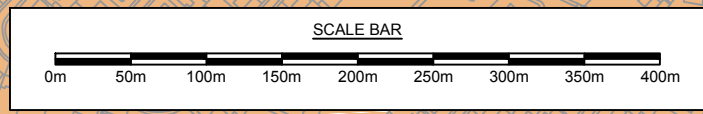
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— PROPOSED SCHEME  
— PROPOSED SCHEME EMBANKMENT  
— WATERCOURSE  
— FELSITE  
— HAWICK GROUP SANDSTONE

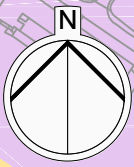
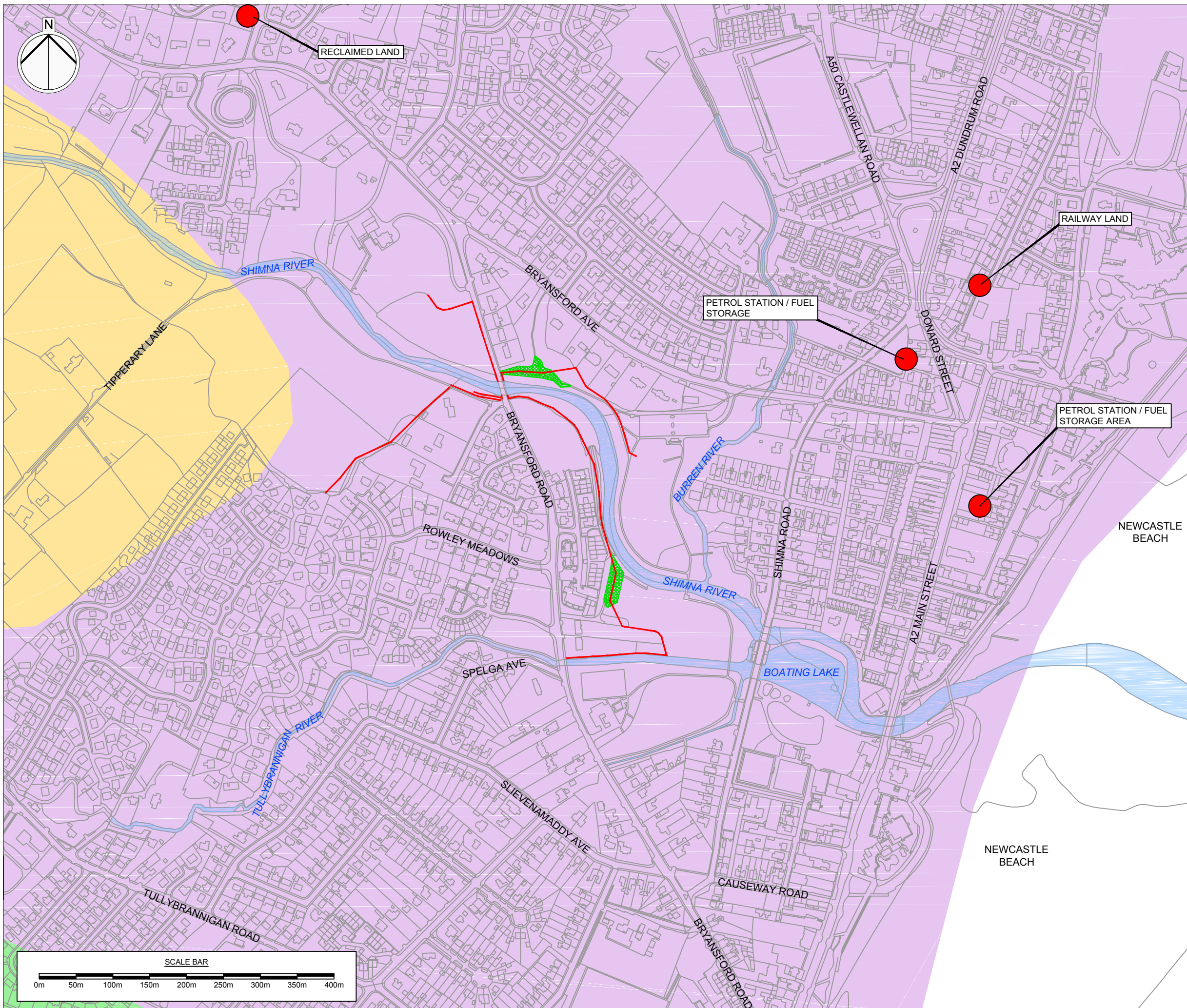
Scale @ A3  
1:5000  
AECOM Internal Project Number  
60556684

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**FIGURE 14.2**

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








Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**GEOLOGY & SOILS**  
**SOIL GEOLOGY AND  
 POTENTIALLY CONTAMINATED LAND SITES**

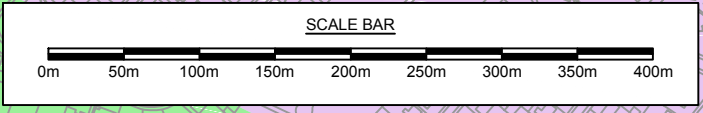
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  -  PROPOSED SCHEME EMBANKMENT
  -  WATERCOURSE
  -  CAMBISOLS
  -  URBAN SOIL
  -  NO SOIL DATA
  -  POTENTIALLY CONTAMINATED LAND

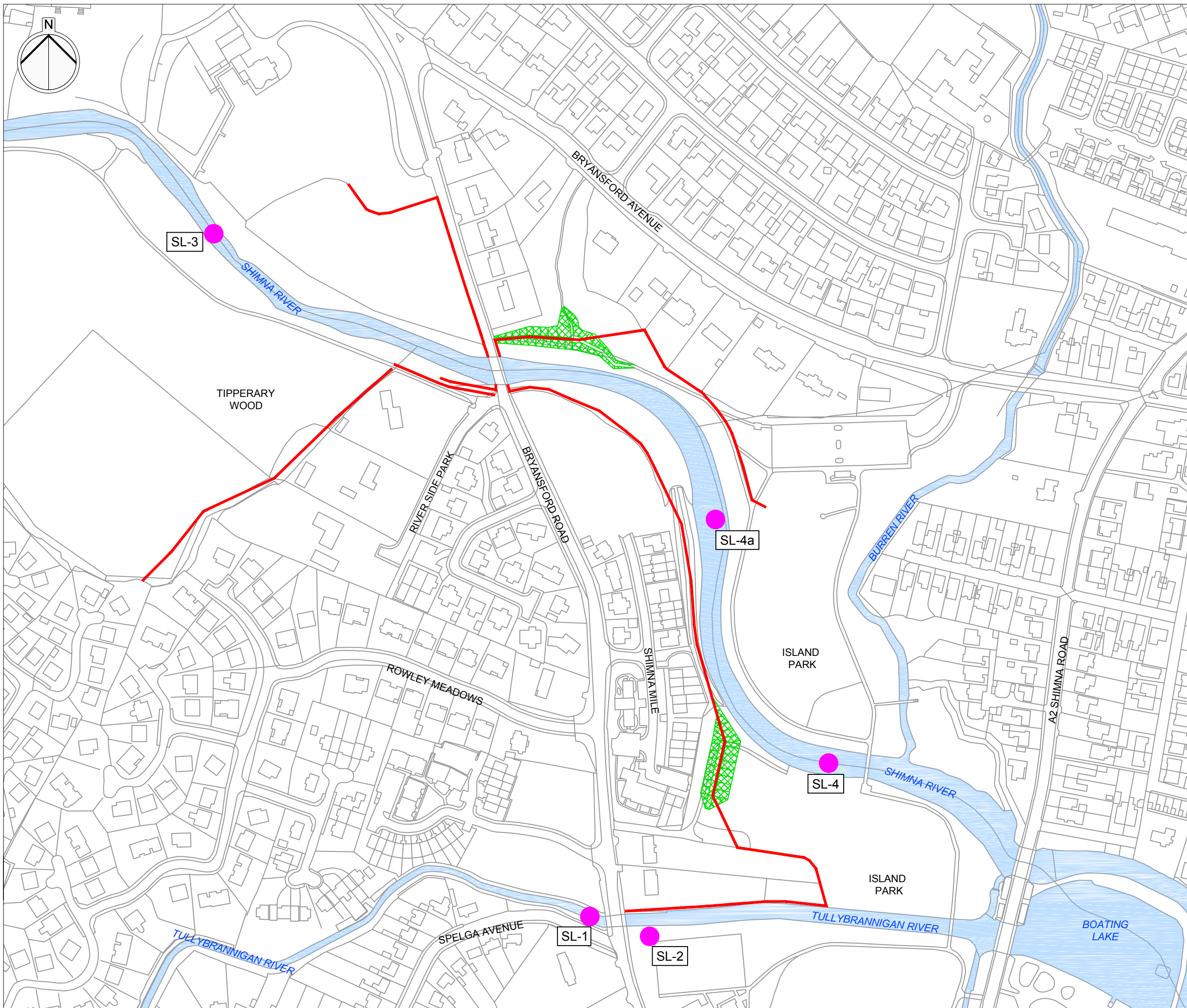
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 AECOM Internal Project Number  
 60556684

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**FIGURE 14.3**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**FISHERIES AND AQUATIC ECOLOGY**  
**SURVEY SITE LOCATIONS ON THE  
 SHIMNA AND TULLYBRANNIGAN RIVERS**

KEY  
 PROPOSED SCHEME  
 PROPOSED SCHEME EMBANKMENT  
 WATERCOURSE  
 SAMPLE LOCATIONS

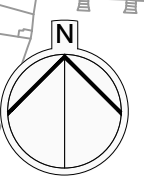
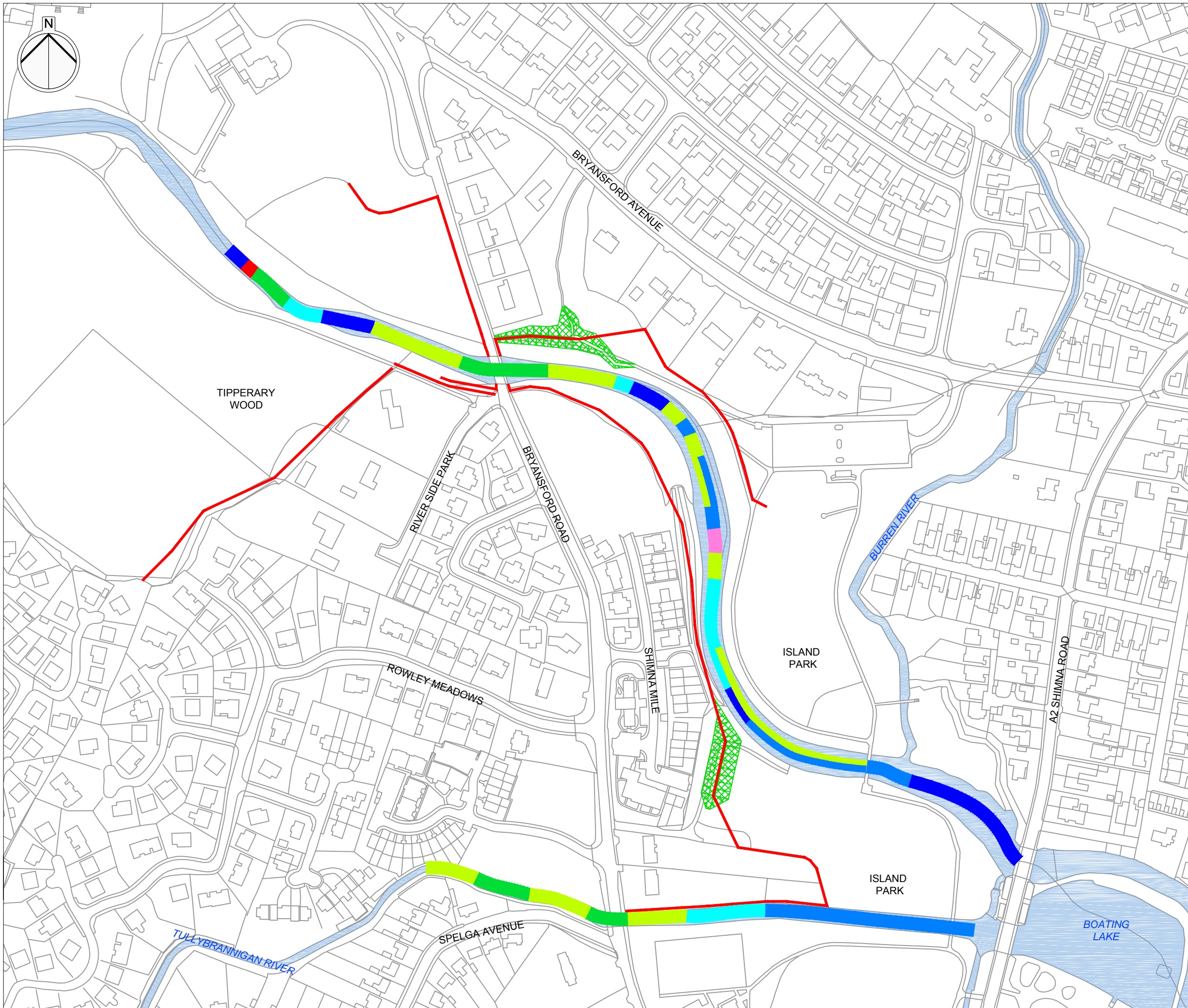
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 AECOM Internal Project Number  
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**FIGURE 15.1**

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Project Title  
**SHIMNA  
 FLOOD ALLEVIATION SCHEME  
 NEWCASTLE, CO. DOWN**

Client  


Drawing Title  
**FISHERIES AND AQUATIC ECOLOGY**  
**SALMONID HABITAT CLASSIFICATION OF  
 SHIMNA AND TULLYBRANNIGAN RIVERS**

**KEY**

- PROPOSED SCHEME
- PROPOSED SCHEME EMBANKMENT
- WATERCOURSE

**SALMONID HABITAT CLASSIFICATION**

**NURSERY**

- N1 (GRADE 1)
- N2 (GRADE 2)
- N3 (GRADE 3)

**HOLDING**

- P1 (GRADE 1)
- P2 (GRADE 2)
- P3 (GRADE 3)

**SPAWNING**

- S1 (GRADE 1)
- S2 (GRADE 2)
- S3 (GRADE 3)
- UNCLASSIFIED

Scale @ A3  
 1:2500  
 AECOM Internal Project Number  
 60556684

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**FIGURE 15.2**

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