



REGIONE AUTONOMA DELLA SARDEGNA
ASSESSORATO DEI LAVORI PUBBLICI
SERVIZIO DI PIENA E INTERVENTO IDRAULICO
SERVIZIO DEL GENIO CIVILE DI ORISTANO.



CONSORZIO DI BONIFICA DELL'ORISTANESE
DPGRS N° 239 del 04.12.96
Via Cagliari, 170 - 09170 ORISTANO

PROSECUZIONE DEGLI INTERVENTI PROGRAMMATI NELL'ANNUALITÀ 2012 DI
RIMODELLAZIONE E STABILIZZAZIONE DELL'ALVEO E DELLE SPONDE DEL RIO
MOGORO MEDIANTE GABBIONATE METALLICHE O ALTRI IDONEI SISTEMI DI
INGEGNERIA NATURALISTICA, NEL TRATTO COMPRESO TRA L'ATTRAVERSAMENTO
DELLA S.P. 47 E LA CONFLUENZA CON IL CANALE ACQUE ALTE.

SERVIZIO DI PIENA E INTERVENTO IDRAULICO E DI PRESIDIO TERRITORIALE
Annualità 2013 accorpato con annualità 2018

PROGETTO ESECUTIVO

CUP G57H13002270002 - CAT P0417

RELAZIONE BIOLOGICO NATURALISTICA

IL PROGETTISTA:

Dott. Ing. Fabrizio Staffa

ALL. 1.2

STUDI ARCHEOLOGICI:

STUDI NATURALISTICI:

STUDI IDRAULICI:

STUDI GEOLOGICI GEOMORFOLOGICI:

Dott.ssa Valentina Chergia

Dott.ssa Sandra Pintus

Dott. Ing. Fabrizio Staffa

Dott. Geol. Marco Piras

Dott. Geol. Paolo Sardu

REV	DATA
03	09/10/2020

IL RESPONSABILE DEL PROCEDIMENTO

Dott. Ing. Giorgio Bravin

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Allegato 1.2 Biologico Naturalistica

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RSHUH GL ULYHVWDWHQWR LQPELQVHQHQHQWVWDVWVRFKHI UL
FKH YHUUJ GL VHJXLWRDWHOLR E&HDPHURDLRQHJIPQQ IOXYL
GHOOD PDQWHOODWD YHUUJ UHDOLJJDWR LQ SLHWUDPH

/IDVSRUWDJLRQH GHOOD YHJHWDJLRQH YHQUFHFWHWHX
JRQH LQ FXL WDOH RSHUDJLRQH VL UHJLRQH QHFWLQWLDUS
WHUPLQH GHJOL VVWDVDTYH\$SURJWDXQXWQ GLDSSRDFHWKIDJLR
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/IRELHWWLYR GHL ODYRUL q OD PHVMD DQVILFXQHJJDGB
VWDELOLJJDJLRQH GWOOWW\$PQGBLQHJHQGH SURYHQDOH IHC
HVRQGDJLRQH LQWHUYHQHQGR ORFDOPHQWPDQJLR\$KQWILVR
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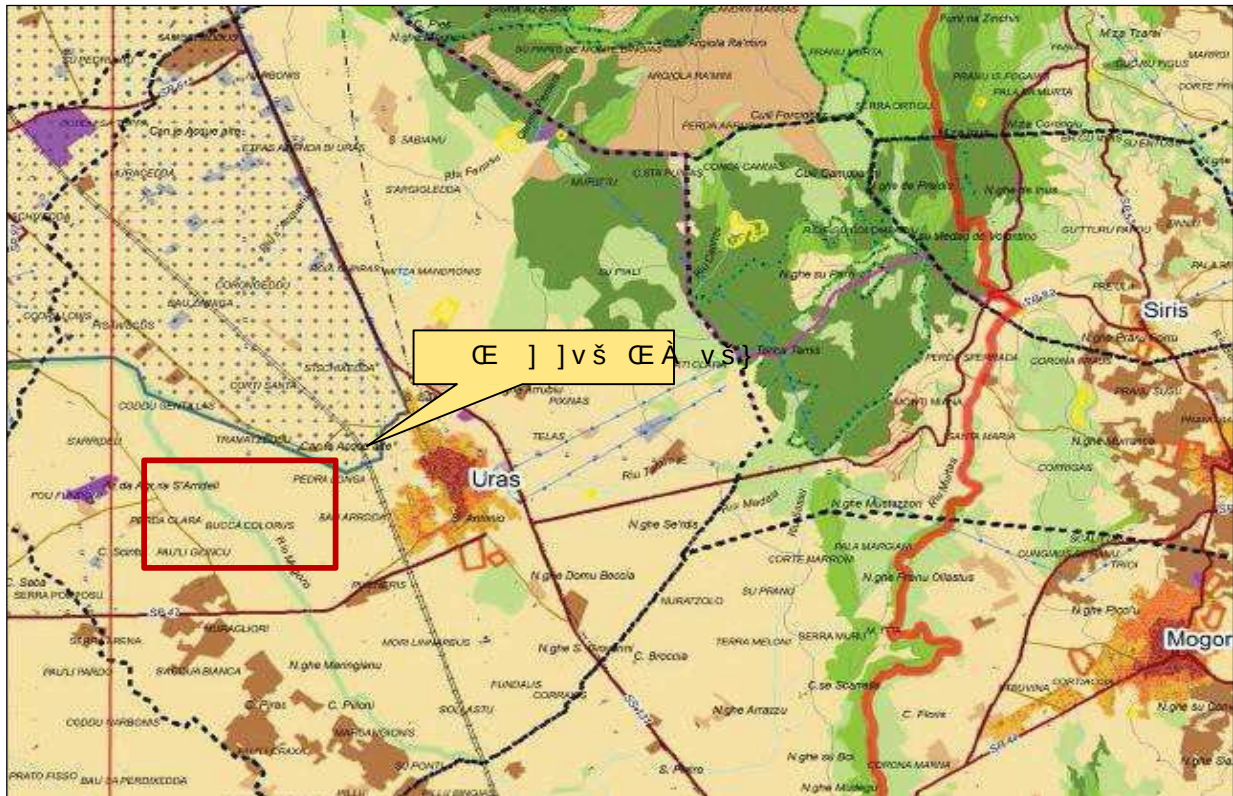


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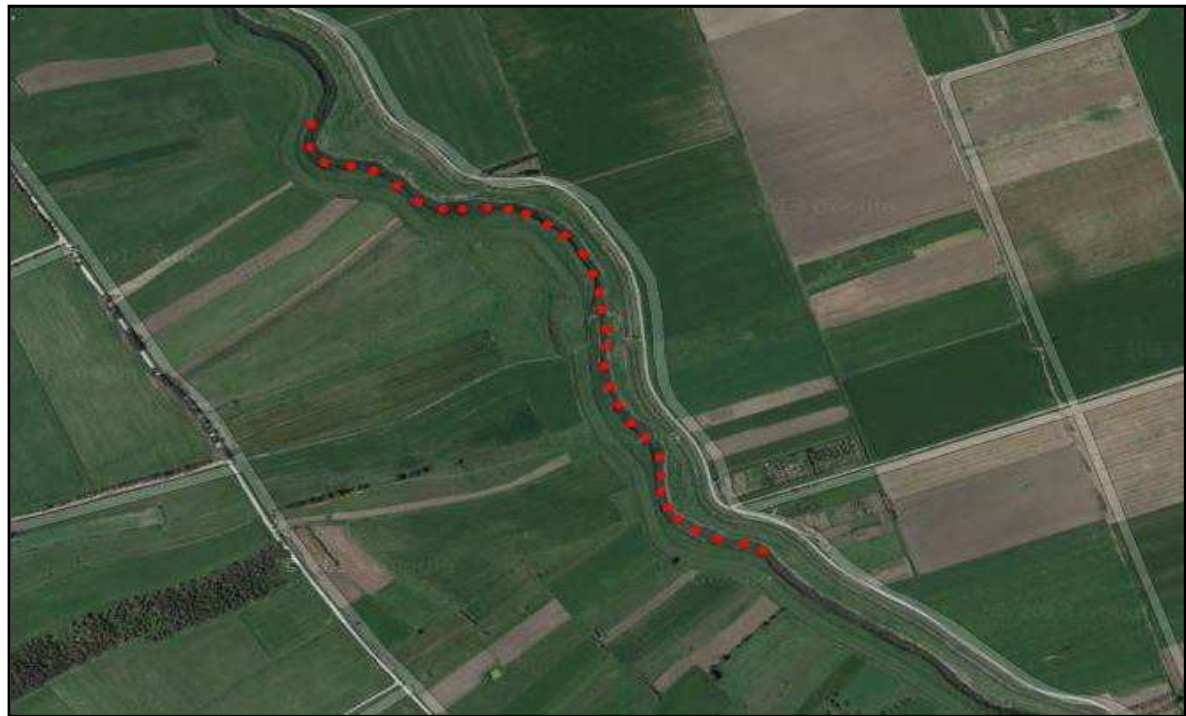
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3LDQR GL \$VVHWWR ,GHUR J3HFDQRJ L6VRU B DIOFLR (B DVOFD)5HXJLU
6DUGHJQD ULVXOWDQR JLj FRQWHQXWHHL Q HDQWQR SGRFV B
WUDODVFLDWH LQ TXHVWD VHGH

,O ULR ORJRUR VL VYLOXSSD SULQFLSQQD B HQ Q
&DPSLGDQR LO VXR FRUVR VFHQGHQGGQWYHUYVR WD B D UH
UHDOLJJDWL QHJOLHD Q Q YD JOLD W W W W D U L X E H X U D Q G D Q
VIRFLDUH QHOOR V W D Q R W G L J O D L V Q L F B U Y B Q W L R G S H E R Q U M R
GHYLDWR SHU FRQG XUOR D VIRFLDUH Q B D O R H G W D J Q R G
DWWXDOPHQWH W U L L E S W D Q E S B O P H

1HO VHWWRUH FROOLQDUH O TDOYHR FOKHYVDOLQW B UXQR
QHOOD JRQD WUD JOL DELWDWL GL B D Q D O H T H W W I D I E I D D O H Y
QHJOL DQQL T GD TXHO SXQWR L Q J S R Q H W U D V D J d D D W J L
ULYHVWLWD LQ FDOFHVWUXJJR ILQRJ D O R W P D W Q R W L H M P L W Q D

,O WUDWWR IOXYLDOH LQWHUHVV DQR HG D V W D E L Q W J H D J Y
GHOO TDOYHR VL WURYD D PRQWH GH O O S D S W L W H G D Y O H D

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DPELHQWDOL GLUHWQDFOQWUHQFOLQJYDQHQHFGQMLGHHUFSHH T
HVVH SRWUHEEHURDWXWLUHQGHWOYLLQSGGDWDYDULJJD]LR

&RQVLGHUDWH OHDSHHFXQ QDHLVWPHGHIOUJDPHQVHSDHQWD
PDQFDQWH GL XQ JUDGR GL QDWXUDOSWjGHIIOHGDVSRFULD
YHJHWDOL WLSLFKH GHOOD JRQD FOILPDQWFD MLJSURPPHUGR
XQD FDUDWWHULJJD]LRQH IORULVWQFDGH HXFOXVHLFDYBSSU
VSHFLH GL SDUWLFRODUH LQWHUHVH QDWXUDOLVWLFH F
GL VHWWRUH \$OWUROREGHWQDYRLJDPVLFKH GHUODWMBJHV
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IDFLOLWDQGR LQRYHQQLFOLVQFQVHLQHQRV
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,O FOLPD SUHGRPLQDQWH QHOOD JRQDLQXEHVDRIGR GER
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FDUDWWHULJJDWR GDRQRGHVWHLFKVFXGVLXSR YRWDMjRQDQFLC
QHL PHVL LQYHUQDOL 3LQQD ,QRQHFBUGRYFRQODDWE
DO LO WHUULWRULR SXz HVVHUH FDOVPOFJRVRRFB
PHGLWHUUDQHR HG DWHUURQHRPDSOPXGLVWFDJLRQDYDULBQW
VXEPHGLWHUUDQHD

, GDWL GHO 'LSDUWWEHQWHJLSHQDWHGRFLEQWLFDR
WHPSHUDWXUH PHGLH DQQXH FKH QHJOH XOWLPFBQQYDQ
PHGL PHQVLOL SL• HOHYDWL QHL PHVLGGLPQXVOR SILDERW
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SRVVLELOH VXOODHGHQDQWHLFD]DRQHGRFWRPBRKH
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SHULRGR GHOO]DQQRLOWEXL FDPVRRQSRPHQVLRQRSUWHQW
OH VWUXWWXUH DQVSRPLDQVLOH]VRLWLDLWDOH VWUXPHQW

6HEEHQH L VRSUDQLOXRDQR WIMDWWXDYRQWUHXQLRDEBQW
GHO PHVH GL J LXJQR H OH DOWUH GXH GQWVHWDWHP EGI
FRQVXOWD]LRQH GHBDUHDILFQWL KEDQRHQRQVBDQWLWR GXD
FRQRVFLWLVR VXIILFLHQWH D TXHOVHLQFKH WRXQGLBOL RELH

&RQVLGHUDWD OD WDSRORJD W VSHUQJLHFWFLXQVWDD VSDH UF LTU
ULJXDUGD OH VSHFLH YHJHWDOL SUHWWHDPHLQVXQ LFCVPHIQHWM
LQWHUYHQWL SURJUDPPDWL SHU TXDQXQLVWLWFLHQLHHWQVXIB
L VRSUDOOXRJKL HFLQHFUHVFDUHLFSHW OXQVWFKHQLHQLWV GRP
VDUHEEH VWDWR QHFHVVDULR SURJUDPPDIPHQQWH FDPVSDER
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FDPSLRQDPHQWR SHU OH GLYHUVH WWSHPSRULHODHQDPGLVLSRL
QRQ KD FRQVHQWLWRXQTSWWXUD]LRQHGLRQGLWLQLVLSUGR
SHUWDQWRUBUHQ HVDPH QRQ VROWDQMRROVMHVSHFWLHHGXIH
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SRVLJLRQDWL OXQXRLODHS HURUWRDLVRKOWR DSHB BHQB GHG
q HVVHV R SHU W XWV OHOBHJR QDQDR OYJFL GLFLOFD OD BHKWL

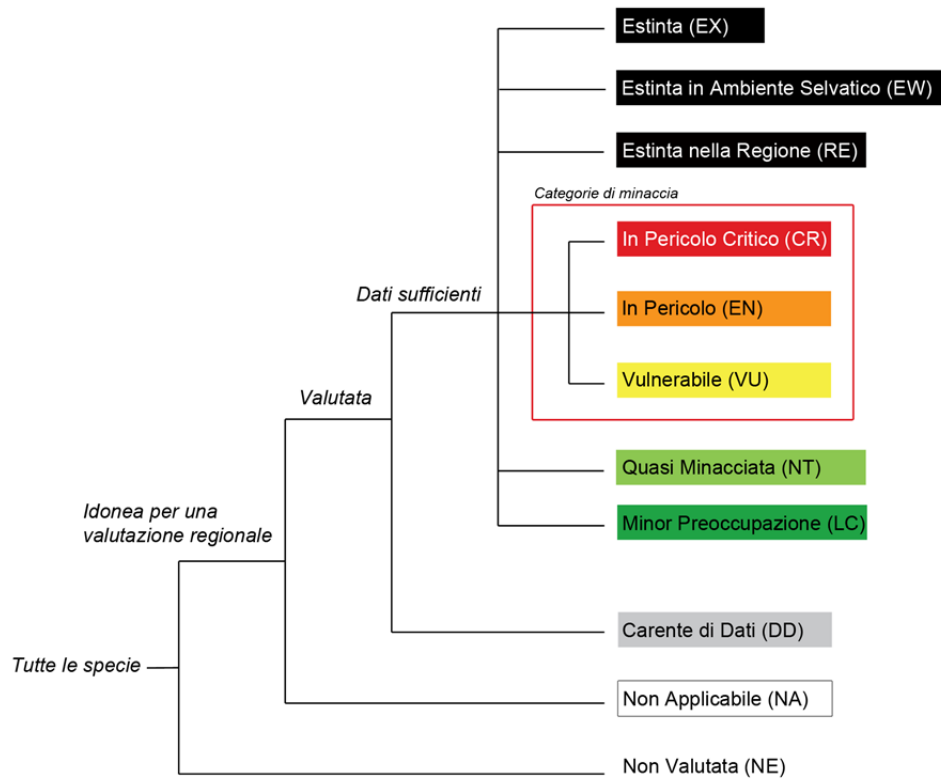
,O SULPR WUDQVHLGWRWRVLWDWRUUDQJSDQ GH QJQWGHUOHQV
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WUDWWRGTLQWHBYSUQWRVGVWD,OVHW&DO)FLJ

/XQJR FLDVFXQ WUDQFHVWBOISUJRFQDGHFMDHQDHR VRIQR
 VWDWH LQGLYLGXDWHIWRXWLVHWHFVSHFQDUGLVHVQHWqV
 FRPSLODWD XQD VFKHGD GL ULOHYDPHQWRGXWLR qDOVDF
 LGHQWLILFDJLRQH GHOOH VSHFLH FRQWPHDQW HOLFLVGHVH
 FKLDYL DQDOLWLFKH GHQ 3LJQDWWL



)LJXUD 3RVLJLRQH GHL WUDQVHWWL SHU LO ULOLHYR GHOOH
 ,O VXFFHVVLJR SDVVDFRLOKDFRQHYLWDJLBRQHYDGH
 VRWWRHQHQFDWD DQ OLQHYHQWYDQHEHQBHQSDUMLVSDUH

QDWXUDOLVWLFD R VRWWSRVWH D SDUWLFRDUL PLVXUH
'LUHWWLYD &((OUDHFRQVHUYD]LRQH QDWXODOKDE
VHPLQDWXUDOL H GHOOD IORUD H IDXQD VHOYDWLFLK
/HJJH IHEEUDLR³1RURH SHU OD SURWXLQRQH GYDWA
RPHRWHPD H SHU LO SUHOLHYR YHQDWRULR'
'LUHWWLYD &((FRQFHUQH QWH OD FRQVHUYD]LR
&RQYHQ]LRQH GL %DWOEDLFLWLF DOUDHFRQVHUYD]LRQH GYDWA
GHOO†DPELHQWH QDWXUDOH LQ (XURSD
/HJJH 5HJLRQDOH Q SULQHGH³6XOOD SURWH]LRQH
VXOO†HVHUFL]LR GHOOD FDFFLD LQ 6DUGHJQD'
/HJJH 5HJLRQDOH Q GHO OXJOLRLRQH³1RURH
IDXQD VHOYDWLFD H SHU O†HVHUFL]LR GHOOD FDFFL
6RQR LQROWUH VWDWH FRQVXOWDWH OH OLVWH URV
&RQVHUYD]LRQH GHOO SHU†DPELHQWH QDWXUDOH LQ (XURSD
GHOD IORUD H GHL YHUWHEUDWL LWDQD LQ (XURSD
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GHO JHRVLJPHWR PHGLQWDOUDQHFDIREFUELOOR HXXWUROD
3RSXOHQLRQ DOEDWL)EDLLQR8DQJHQLFLQ QDQFEDLV SDGV
FRUVL G1DFTXD FKH SUHVHQWDQR OHFBDWHDWHW 6DLGWL
SRSRODPHQWL HORILWUEJRIHWRLFH O DQWFDGVDVIEL QIKUQH
ODJQRFDULFHWHD

)LVLRQRPLD VWVWVWXUJDJH FQHU DQVULGVWL PDVGIORF
PHVRERVFKL HGDIRLJURILOL H R SCDDQJUSLDBL FDGXF
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VWUXWWXUD JHQHUDOPHQWH ELVWUDEWLOHFDOQDXQFIRQW
SHULRGR GL DOODJDEKXQWLYR D VWUDQVHDBR FXWWLWXLQRV

&DUDWWHULJJDJLRQH OLWRPRUIRORJLFD H FOLPDWL
VL ULQYHQJRQR LQ FRQGLJLRQL ELRFODVWDLFRQ P
WHUPRWLSL YDULDEWGLUUDQH VWXSRUSRIBDRO PQMFWLRB
VXEVWUDWL GL YDULD QDWXUD PD VHPSUH FDUDWWH
FRQ SUHVHQJD GL FDUERQDWL H LQ DQDHRHXLWQIRDFKH

6WDGL GHOOD VHULH

*OL VWDGL GHOOH VHULH VRQR GLVSRQVR ILQ PD
GLUHJLRQH HVWHUQD ULVSHWWR DL FRFRQWGDQRTXHO
ERVFDJOLH FRSLVXBXWUS sp,DTamarix sp HG DOWUH IDQHU
FHVSLWRWVXKXQDQUS, Nerium oleander RSambucus nigra

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GDOO1LQWHUYHQWR q SRVLJLRQDWR LQQXQDDUHDDCHUQH
ULVFRQWUDQR JRQH FRQ HOHYDWR JUDGHYDQHQVWVXHQ

FDUDWWHUL]]DWD GD VSHFLH HUEDFHHWIDOWLSURQDGHODH
ULSDULDOL OH VSHFLH DUERUHH SUHGDHQLQGLYDGSXUHLV
VRQR SRVL]LRQDWHHFRQDOWHHHODUMHWUDJGD FKH ILDQFKHJJ

/IDPELWR IOXYLDOHUHVDODLQDSVLRDPGLVWWULEX]LRQH
QHL GLYHUVL DPELHQWL LQ IXQ]LRQH GHL JUDGLHQWL
GLVSRVWH LQ IDVFEHGDVWVOQ]DOHGDDOHQDFTXDGDOGUSBQB
LJURILOLDL,DEIELHQMQWVRIRILQSRLYLGTXCHORRQIDDOYHR
IDVFLD ULSDULDOL H GHOD]RQD GLVFRDQGDUEEBMLQR
DUJLQL GHOFRUVR GIDFTXD 3HU IDFLOLWDUH OD GH
VSHFLH YHJHWDOL FHLGHYDQDOL]DQSRVHSDUHDVDEPHQV
DQJLGHWL

4.3.1 ALVEO FLUVIALE

/D]RQD GIDDOYHR q OHUSHQRLRQH HGLWDPHQGDHQRV
VFRUUHUH GHODDFTXD /IDDOYHR IOXHWLDOISXQRQRGLXQED
QHO WHPSR VXOOD EDVWVBULQXFRPHRQISRYDULWDLRQHLOGL
OIHURVLRQH H LO GHVSDVHWRGGLHUPHQWHRFRJQGLR
GHWHUPLQHUDQQR ODIYXULG]LFRQHVLGRQLWERQRGRQLVHJXR
QHOOD WLSRORJLDHVDODHSDVHFQWVYHLEH]DQDQHORUR GLV

1HOOD VLWXD]LRQH ULOHYDWD QHO QHRVGHGLOVDHOMV
IOXYLDOH OD YHJHWDHQRQDWD GDSSSHFLHWHUHEVFXUHH
FDUDWWHUL]]DWH GD HOHYDWD UHVLDVH]DQJEDVLIQGLVWRD
H JLYDQL VDOLFL LWHVSRQERHUEDSSVHVH]QDWDWHDSEHFDW
HPHUJHQWL DOOH TXDOL VL DVVRFLD GLHQODOFUDQGLFM
VRPPHUCeratophyllum demersum &DUDWWHUL]]DQWL TXHVWIDU
DVVRFLDPhragmitesDaustralis H Typha latifolia VSHVVR DFFRPSDJQDW
Sparganium sp.)LJ H DOWUH VSHFLH ULFRQGXFLELOL
ODJQRFDULFHWHD

4.3.2 FASCIA RIPARIALE

/D IDVFLD ULSDULDOL l'Insieme delle zone a rischio id 3

prossime al solo letto del fiume, in cui si può osservare una diretta influenza dell'acqua' *UDI

SXz HVVHUH GHILQLWD FRPH XQ HF
WHUUHVWUH H TXHOOR DFTXDWLFR TXHWMULJ]BQD GID
JUDGLHQWH GL XPLGLWj GHL VXROL RLYH JHLQM VHO&S\$DQ
DQFKH ³DJRQDOH' LQ TXDQWR UHODWLYDHPHQWHU WQW
FLUFRVWDQWH

,Q SDUWLFRODUH QHDIWHJRQL FRQHPLDULGFRQGFQD
PHGLWHUUDQHR OD YHJHWDJLRQH ULSDHQD VLLQHVDWHQG
VHJXH LO FRUVR GWDQGRPHRFRQMPHQWRFRIRUEOVSDHQWH
OH SL• LPSRUWDQWLHXQJLRQH V WYROW IDW SURV VLQBRFV
FRQVROLGDPHQWR GHOOD JRQD VSRQGDOWYRDOVRUXQL
FRQIURQWL GHJOL DSSRUWL GL IHUMRLSJDQWILQDHQWV
FROWLYDJLRQL HQFRHQWLRQDHRVBQGDJLRQH H GHOOD YH
FUHDJLRQH GL KDEQMDWXSOLWDERODQDHSURVWDEWDXJVL
QLGLILFDJLRQH

1HO FRQWHVWR GL VSRQGD GHO WUDWFRQGHQFLR
FRPXQLWj GL VSHFLH QQXEDWRDQFKH LQWJLRQDWH D
Phragmites australis, Arundo donax H DG DOWUL SRSRODPHQWL LJUR
ULVXOWDQW organismi delle specie Onopordum illiricum, Chenopodium
album, Xantium italicum (Fig. 7).



)LJXUD \$OYHR H VSRQGH GHO 5LR 0RJUR



)LJXUD)RUPDJLRQL DUEXVWLYH GHOOH VSRQGH

4.3.3 AREA DI GOLENA

/IDUHD JROHQDOH UDSSUHVHQWDWD SGHODDWSRUPLRQF
GHOOIDDOYHR LQFDOXRLHQDLSXJHQLDGHUDEFJXXHQWROB LQ
HYHQWL GL SLHQD H VYROJH TXLQGL HQSDQSRURQHQHOUX
FDVR GL SLHQD /D YHJHWDJLRQH SUHVHQVHXQQ LPSRWWDJ
IXQJLRQH LGUDXOLFDOGH SHVQHRQLHQXDWWR LQSSDGRHQW
RUJDQLVPL FRQ VWUXHPWUXJLGLJGGHIDHQVHHOHVQM DERFQWj
DFTXH HVRQGDWH

/D JROHQD GHQ 5LR DWRWRURHVDFQDWRWGLJXQWDLWWR
LQWULFR GL VSHFLH HUEDFHH WHUPDLQXLSVSHVFDJWDQPH
LQGLFDWRUH GHQ QXWHLHQSSURJYRQDQWLDVWLYLWj DJUL
SDVFROR VYROWH QHOOD JRQD FLUFRWLDQWGLVSDXUWFRDQ
OD ULGRWWD SUHVHQJHGHGVSHEXVWDYHUHYBOPHQVHQVID IX
LGUDXOLFQD VYROWDGBODQDYHJHWDQHQWWDSDQHDJSDHFFH

/H VSHFLH PDJJLRUPHQWducLcarica/HoenicR
Carlina corymbosa)LJ Sybilum marianum)LJ Marrubium vulgare)LJ
Borrigo officinalis)LJ DVVRFLDWHQDQDIQSVHGL JUDPLQDFHH

9LHQH GL VHJXLWQFURLSRUWLDWRFORIBBFSIDHWRHGHDOCH O
WUDQVHWWL WUDHFGDWL QHOOVHWRHURQEDM VFRUVR

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) L J X U D Xanthium italicum



) L J X U D Persicaria maculosa



) L J X U D (SLORELXP DQJXYLW XURD %XP UUDJR RIILFLQDOLV



)LJXUD 0HQWKD DTXDWLFD)HJXHQDQWKNPVS VS



)LJXUD (FEDOOLXP HODWHULXUD 0DUUXELXP YXOJDUH



)LJXUD 3DULHWDULD RIILF)HQODV 6DOL[VS





)LJXUD /DYDWHUD DUERUHD)LJXUD &DUOLQD FRU\PERVD



)LJXUD 6\ELOXP PDULDQXP)LJXUD 6SDUJDQLXP VS



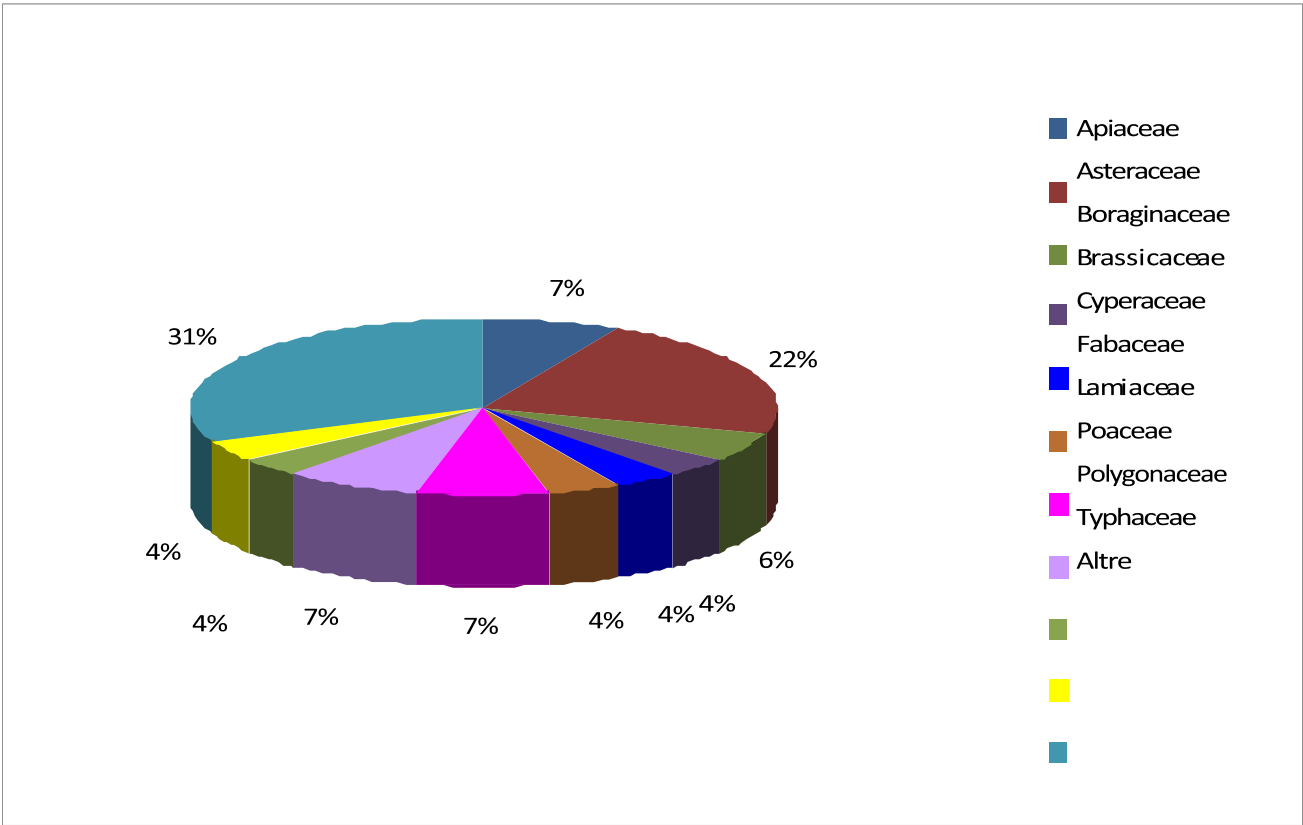
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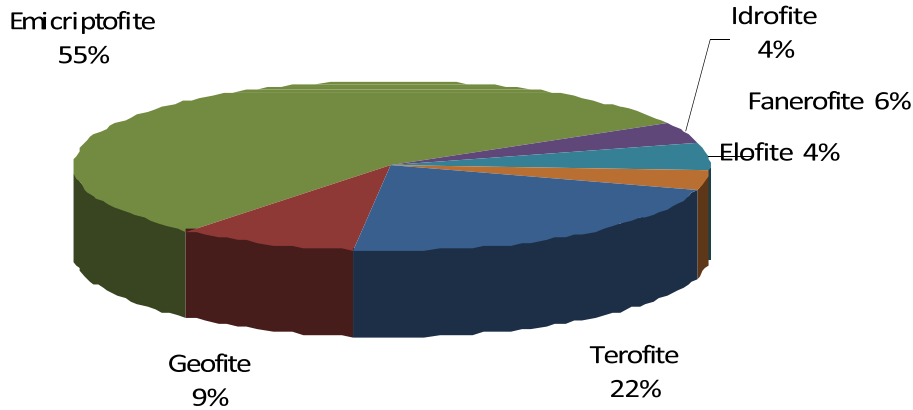
/THOHQFR IORULVWRFERHSGHVHQWDFRHFHQDJJLDPSSLDWH)
WUD OH TXDOL VRQR PDJJLRUPHQWH UDSSUHVIHQWGDWH
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/R VSHWWUR ELRORJLFR ULSRUWDWR ID GHXOD GLYHR
IRUPH ELRORJLFKH SUHVHQWL DOOQLQGHXUDWRH GVIHQDQ GFR
FODVVLILFDJLRQH GL 5DXQNLDHU FIRUPHQELRORJDF
UDSSUHVIHQWDQWL QVSHQJRWIRGDQVSDVWLPHQWRDL D
QHOOR VSHFLILFR LO VLVWHPD FODVLDGFRWRDWR GD EDVY
SHU SURWHJJHUH L JHUPRJOL GXUDQWH OD VWDJLRQH DYYH

'DOOQLDQDOLVL GHQ JUDILFR VL HYLGHQJHPLDLSMRWDV
VRQR UDSSUHVIHQWDWSDHGH VHGXLOHGDODHGVDORILWHRIL
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)LJXUD 9DULHWj IORULVWLFD ULOHYDWD QHO VLWR GILQWH



)LJXUD 6S#WWUR ELRORJLFR GHOOO IORUD FHQVLWD

7UD OH VSHFLH FHQVLWH QRQ VRQR VWWDWQHVRMDYDDVLS
GL VSHFLH GL SDUWRQRVEDMBJLYDQLVHLER VSHFWDLGMOH d
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GHOOH LQGDJLLQL FRQGRWWH

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HVVHQGR FRVWLWXLWD GD WD[D GL SBUWQWDOXQB DQVHDU
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FRUULGRLR HFRORJIKHR IRRQLRQSHGLLFRQDDUYE]LRQLYHGM L
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GLIIXVR WHVVXWR DQWURSLFR

3HU TXDQWR DWLHGHILODDYDROXWGLJDRQHILNWHJQJPDQHSUCH
DOOD FRUHQWH GPHSLFKQD WVIDVSWBQXGRVL GL XQ WUDWW
GLIIXVD VLD QHOOD JRQD GIDDOYHR FKH HQEDXHHOHBGUDSE
GRWDWH GL HOHYDWDQVQBVIDEVLRLFKJBDWXHJOLLDDYCDQHVL
FRQWRUQR VL DJJLXIQRJLQSHDUGWWDIGRQWQHJERQQRVYQXMHYD

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VFDEUH]]D GL 0DQQLQH GHVEEDPHQDWR VRPJDLQGRHWWDL OGL
IDWWRUL FKH RVWDFRODQR OD FRUUHQWHQWUPDPRWHH POD U
UDSSUHVHQWD LO JUDGR GL VLQXRWRWj9GHXWUWWWRDWWRL
VLJQLILFDWLYLWjDTHGDQYHRDWDULRUPD GHOD VH]LRQH
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GHOOH SRWHQJLDOLJQWQWIIHUYHQQHLWQHSHVURJWVWVHQHQ GR
FRQVLGHUDJLRQH GH LGDYPVHL IFRQ VLPVQHW QHOVHQJH DOL
RSHUH GL ULYHVWLPHQWR JDQFLRQWMOH MHUWDVWLEKHL QHE
PLQDFFLYDWRULWJLQDOH

'DOOJHVDPH GHOOH D]LRQL GL SURJHLWVSDHPWUJDH FDXHL
FRPSRQHQWH YHJHWDH H IDXQLVWLFHQHQDJD]LRQH GLWV
HVVHQJLDOPHQWH DOOH VHJXHQL DWWLYLWj

x 1HOOD IDVH GL FDQWLHUH

5LPRJLRQH GHQHQHYHQWYHR H QHOOD JRQD ULSDU
3UHVHQJD GHO FDQWLHUH FRQ GLIIXVLQHPRGULL SRQ
YLEUDJLRQL

'HSRVLWR WHPSRUDQHR GHOOH WHUWH GL VFDYR H

x 1HOOD IDVH SRVW UHDOLJJD]LRQH

3UHVHQJD GHO PDWXLWLDLHJDVSRQHGLFRQJDXU
3UHVHQJD GHL JDEELXQLOBHVDLOL ULSDULDH

*OL LQWHUYHQWL VXOOD YHJHWD]LRQHOGFDQVHRHQWR
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FRQVHUYD]LRQLFQVLRGHUPDWOD IXQJLRQH TXHQHDFRUHJH
HFRORJLFR JOL VWWVH GRDODQQLHYR PSRGYVGHQVW OJ
GHOD YHJHWD]LRQHJRQHFBPHQWHLQDQVGHILQDMBHV

/D QHFHVVLWj GL DMSRDJWBQH GD \$BUVLLQMOHWHVWDSW
ODYRUL VL FRQILJXQD]LRQVWGLFRIPVXQEQWKOCHVRD 6
FRPXQTXH GL XQ LPSDWR GL WLSR USYHUFVMDWRH FIGHYH
DQJLGHWWH q SUHYLVWR LQWHUHVVLQBPVWRPIHQWHDDEFK
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&RQVLGHUDWRHFKWRO\$UQWHDPPDWR LQWBUHVWDXQWRSR
FRPSOHVVLYR GL FLWFD VROQGR DQFKH FRQODHWRM/QLOH HV
GHOOD YHJHWDJLRQH GD WXWWR LO GMLDRQLRRWQWDDDRHQH
OLYHOOR GL XPLGLWj VSHFLSUMHMQMDOL D YHORFH SURSDJD
TXHOOR LQ HVDPH LWBXIQDUBBQYHQBQYHWDJWBQHRQH QDW
GHOODUHD

3RVLWLYD D WDO ULJXDUGR q OD \$LQWHD SRHGHQDDGY
JRQD ULSDULDOH VSHFLH DOWDPHQWH QHSLDHJQDWXUQH VFW
IDFLOLWj GL SURSDDDJLRQHHPGRWLRQH DGL SRORQLUWDGQFUI
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VHPL

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GLPHQVLRQH GHO WWDWVRQVGHQWQWJHDOHQJQD]IFDQIR GHOOD
YHUVR OH JRQH OLPLWURIH QRQ LQWUHVVDWH GDOOH DWWL

,Q SDUWLFRODUH VL HYLGHQJLD OD QHGHFRUWJVLGD HVRQ
GLVWDQJD WHPSRUDSHURGXOWSLHURLRGHROLDYELDXHQSHULQEXLRQ
GHOOH VSHFLH WUDHODLSLHJQR BMWQQDQWJDHLRQHIDWUXH QR
LQGDJLQL HIIHWWXDWLDHQHQVFD ELLVQ RGLDQSBUIWDDJRQH WR
YHJHWDJLRQHHCQD SRWDVVEH UHFDUWLSULWJLXGSLJRGXQVHL DM

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SROYHUL DOOJLQWHQHQROGHOUH BQMLPHQMSURVNDJLQROWHL YHLF
YLDELQWj GL VRUGHJLQH LQDWRUQVHWRWQJLRQDPHQWR
OJHPLVVLRQH GL UXPRUL H YLEUDJLRQQJDKHRSRWGLDQRWUX
FRQIURQWL GHOOD FRPSRQHQWHSBQVVEJDRQLWDRQRQH
LPPHGLDWDPHQWH UHYHUVLELOL DQWHSPHQWQWGOHODWWIL
QRQ VLJQLILFDWLYH

/H VWHVVH FDUDWWHULVWLFKH GL QPSDWLWQLGFYDXWLYDW
GHOOH WHUUH GL VFDYR H DOOD HYHQWXPLOHLJQJRGXHLRQH
VXIILFLHQWH OD PHVVD LQ DWWR GL WHP SOLMLHSPURQHGXLO

FDQWLFRQVLGHUHQFHUHGHDFFXPXGHRDQHVDQLQHDOLJQDWRJKL
LGRQHLH ORQWDQLHGDDQWRDUHPB\$RQDQQRQOBFYUHHWDJ
GLUHWWDPHQWH LQWHUHVVDWD GDL ODYRUL

3HU TXDQWR FRQFHUQHDDJJDJLRQSRVWPLRSDWMLRQGLLPD
ULJXDUGD OD SUHVHQJD \$WUDPDKWLYHWUDDQBLSEVHLJLRQDD P
GHL JDEELRQL PHWDOOLF L QHOOD JRQD ULSDULD OH

6L ULWLHQH FKH OD SUHVHQJD GL WDODFHQPPHQWR
LPSHGLPHQWR DO UFRSHBWXVID GHGDDHQH GLTXDQWURDPI
XQ VRSUDOOXRJR HDMWRVXDWRHQLDQDPUHQWHODRYDQWHDG
LQWHUHVVDWR GDJDLRERQWBYHQWLTIXQDCHVRQJOLVDDQILHI
GDOOH[&RQVRUJLR GL %RQLILFD GL 7LUUDROEDGH \$DER
PHWDOOLF L ULVDJRPDWXUD GHOOHDWSRQDHPHQHWSURWB
PHVVR LQ HYLGHQJD ODWEW\$RQH GULQDWHDSHUQWDXU
/LPPDJLQH VRWWRVWDQWH)LJ PRVWEDLFRQDWHOHVW
VLDQR VWDWH IDFJLDPHHQDHOFRORSQHLHI GHQWDDH DWLSHQ
GLIILFLOPHQWH LQGLYLGXDELOH OD SUHVHQJD



)LJXUD 3DWLFRODUH JDEELRQL PHWDOOLF PHVVL LQ RSHUD QH